

BEACON

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FEDERAL AVIATION AGENCY

OKLAHOMA CITY

Aeronautical Center

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Cover by Bob Tinneman. A salute to the General Aviation Family.

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Harry and the Co-Pilots look at the newly opened Dulles International Airport in Washington and airport growth.

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Inside back cover of this issue shows High Altitude Air Navaid's Inspection C-135 in flight.

LOOKING AHEAD

Sometimes, in order to look ahead, we must look back.

During the past year we have seen the completion and dedication of the Civil Aeromedical Research Institute Building and the move of the greater part of Aviation Medical Services to the Aeronautical Center.

In Oklahoma, and highlighting the General Aviation theme, we have seen the beginning of general aviation airstrips along Oklahoma Turnpikes.

An Oklahoman has been named to head the new General Aviation Office within the FAA.

At the Aeronautical Center sometime in the early part of the New Year construction will start on the Records Building to rise just across from the Aeronautical Center Administration Building.

The FAA has grown in prestige during 1962. May it continue to do so during 1963 as the Agency continues the collective effort to promote air safety and foster civil aviation.



Welcome Holiday

AIR TRAFFIC DIVISION PLAYS SANTA WARMLY

The Air Traffic Division makes it a habit each Christmas to dispense with mailing Christmas cards to the people they work with every day and, instead, uses the money to help someone enjoy Christmas who might not otherwise have done so. A committee is appointed to make plans and carry them out. This year the committee consisted of Julie Beck, Spence Houghton, Bud Overstreet, Frank Killins, Ethel Callahan and Pat Bonifield, who work with the blessings of Mr. George M. Waller, the Division Chief, and Mr. Perry S. Bolyard, Assistant Chief, Air Traffic Training Division.



Making sure things are all set for distribution are Perry Bolyard, Assistant Chief, Air Traffic Training Division, Pat Bonifield, PT-930 and Frank Killins, PT-937.

For 1962 the State Department of Public Welfare was contacted to provide a large needy family who could be helped for Christmas. "Our" family, as known by Air Traffic personnel, includes 11 children who make their home with their parents (who have no means of support as the father is physically unable) in two rooms. No more details are necessary; the Division people feel it is enough to know the children are without proper food, clothing and certainly have no prospect of receiving toys.

A visit was made by committee members to this home to try to determine each child's special want.

Sometimes this is difficult, for instance, last year when the "Christmas family" children were queried, they excitedly cried for turkey. Hungry children have desires that well-fed adults know little about. Division people are contributing their money to buy groceries and maybe even shoes.

Money is not all that is given. Used, outgrown clothing and surplus, unwanted toys were brought to Christmas Korner, a very special room in the Air Traffic Laboratory Building, where all these items were collected. So that all donated items were put to good use, plans were made for disseminating any clothing and toys which cannot be used by "Our Family".



Clothes and toys are put into place by Julie Beck, PT-935, Bud Overstreet, PT-933 and Ethel Callahan, PT-936.

The Oklahoma City Public Schools have a system whereby children who come to school with inadequate clothing are clothed, and sometimes even whole families receive warm clothing and shoes through this program. Volunteers of the PTA provide the maintenance of clothing and see to it that each child is fitted properly. Clothing that cannot be used by the needy family will be delivered to the City Schools for their use as they see fit.

For toys that prove to be too many (and last year the Air Traffic Division collected at least a pick-up load of toys — for instance, there were maybe 6 giant size trucks), the Division has called on the U. S. Marines.



Division illustrator Lou Snively, PT-937, shows some of his work for the Christmas clothes drive in the Air Traffic Training Division.

"Toys for Tots" sponsored by the marines, is a mighty fine project that distributes lots of toys to little children all over the city every year. No clothing and no toys brought by the people in the Air Traffic Training Division were wasted. Nor, for that matter, their hard-earned money.



TWO FOREIGN VISITORS ARE NOW SAFELY HOME

Two international visitors who were here for six weeks of training in materiel management and operating functions in the Installation and Materiel Depot, are now at home.



They are Mohamed El Toony, of Egypt, second from left in the picture, and Rasheed Ahmad of Pakistan, pictured at right. The two are shown here with R. W. Pulling, manager of the Depot, and Tomi Jo Stefanos, IM-972.7A. (Tomi Jo is in the picture to provide beauty, and because also her boss, William H. Milton, was coordinator of the training).

Mr. El Toony and Mr. Ahmad supervise the provisioning, procurement, warehousing and distribution of equipment and supplies for the civil aviation programs in their countries.

Prior to leaving the Aeronautical Center, Mr. El Toony and Mr. Ahmad were high in their praise for the training they received here and for the hospitality shown them during their visit.

...

A girl in the booth of a downtown Oklahoma City theater asked a youngster when he was buying a ticket . . . "Why aren't you in school?" "It's o-k lady, I've got the mumps."

...

The FAA Aeronautical Center employs approximately 3,000 people providing a payroll of \$28,000,000 a year making it second only to Tinker Air Force Base as the largest industrial establishment in the state of Oklahoma.

HOLIDAY GREETINGS SENT BACK HOME VIA TAPES BY STUDENTS

The annual visit by the Gray Ladies of the Oklahoma County Chapter of the American Red Cross enabled Foreign National students of the FAA Academy to send Holiday greetings to their families in other lands the last week in November.

This is part of the project by the Red Cross to enable various groups to send their own voices back home from Oklahoma City.

The only cost of the project to the students was the postage needed to send the tapes home. The "folks at home" then could hear the tapes on their own machines, and if they desired, record a message of their own and send the tapes back to Oklahoma.

The tapes lasted 7½ minutes and provided a personal touch to the operation.

The recordings were made in the Headquarters building auditorium.



Songserm Eamlumai, Thailand student at the FAA Academy, speaks into the "mike" of the tape recorder, to send a Holiday message home.

A teen-ager roared to a stop in front of a service station . . . "Say Dad, do you charge batteries?" he shot at the attendant. "Sure do sonny," was the reply. "Good, then give me a new one and charge it to my dad."

AERONAUTICAL CENTER PART OF FULL LENGTH MOVIE BY AID GROUP

Even the more nonchalant of the "old-timers" at the FAA Aeronautical Center, who over the past few years of rapid expansion here have become accustomed to most anything happening most anytime, did a double-take a few weeks ago at the sight of a real Hollywood-like production underway at the Center.

It was for real. A movie production company from Hollywood was at the Center slightly more than a week filming the greater part of an Agency for International Development participant orientation film, to be titled, "Dear Participant". The buildings at the Center, as well as classrooms, laboratories, students, instructors and the International Liaison Officer are all in the film, as well as local host families, supermarkets, laundromats, department stores, the Symphony music hall, Art Center, and countless other points of interest to the visiting international participant.

The AID will use this movie in its orientation program of all participants coming to the USA from all countries of the free world for any type of training program. We were chosen to play a pretty important part in the movie because of the well-known training program carried on at the Aeronautical Center for international visitors.

* * *

Center Couple Married in December Vows

Two well known Aeronautical Center employees were recently married and spent a Holiday Season honeymoon in New Orleans.

The newly married couple is Mr. and Mrs. Patrick A. Baretta. He is Chief, General Maintenance Section, Flight Standards Training Division and she is the former Miss Joyce Pigg, Secretary to Chief, Special Air Traffic Training Branch.

* * *

Statistics show that women live longer than men . . . especially widows.

FRIENDSHIP FESTIVAL IS RATED EXCELLENT

The third annual International Friendship Festival, held at the Oklahoma City Art Center late in October, highlighted the color and array of interesting articles that made up the 25 booths representing that many countries.

Twenty of the booths were set up by students studying at the FAA Aeronautical Center. The students were assisted by the host Oklahoma City families, and the festival committee.

The booths were set up Friday evening, and the show opened the following morning. The students remained on duty through the Saturday evening World Parade of Fashions and Talent.



Said Niamaty, Afghanistan, three Indonesian students and the lady, a native of Indonesia and now living in Oklahoma City, performed the graceful "candle dance".

Vincent Price appeared at the Festival. He was in Oklahoma City that week-end and made a special trip to the Festival.

The success of the affair was summed in the words of one foreign student, who reported, "A wonderful and educational experience. The booths, manned by the International students, their host families, and other local helpers, was most colorfully and artistically decorated. The liveliness and beauty of the affair gave those who performed with songs and dances, native to their countries, the right incentive to do so well.

"From all indications this was by far the most successful of the festivals held so far. Thanks to our many fairy god-mothers who came through in the nick of time, and so well."



Also taking part in the World Fashions program, Salim Mushtaq, Iraq, Gonul Simsek, Turkey, Mr. and Mrs. Abdullah Mahdi, Saudi Arabia.

WHY CHRISTMAS?

BY CHARLES A. KITE

Songs such as Rudolf, or Jingle Bells, intended to remind us December 25th is approaching,

Make it difficult to view Christmas much beyond checkbooks and bank balances,

Yet the true lesson of Christmas it is so brief,

Still it represents the greatest single idea ever to confront man,

Along with the most noble and magnificent lesson guide ever written.

It has persisted through the centuries against the most devilish kind of suppression and distractions imaginable.

Man was never more profound than when his acceptance of such a doctrine became a fact.

Strength for the argument for such a doctrine is quickly grasped by all for it is easy to know its wisdom.

It is brief and it is clear

The idea is love.

The lesson guide is love thy neighbor as thyself.

Its beautiful strength lies in the death of hatred

And in the eternal life of love beyond the grave.

FIVE CENTER EMPLOYEES WIN PLACE IN NATIONAL FAA ECONOMY CONTEST



LOCAL AWARDS were also made to the Aeronautical Center winners during ceremonies in the Headquarters building auditorium, December 7.

Aeronautical Center manager Lewis N. Bayne was master of ceremonies at the event.

Shown in the above photograph are:

Enar B. Olson, Director of the FAA Academy, Robert L. Sicard, Chief, Aircraft Services Base, Bayne, Robert A. Simmons, of the Academy, Auddie Howard, Aircraft Services Base, Jack Hastings, Ronald W. Pulling, Manager, Installation & Materiel Depot, Virgil A. Fisher, Arthur L. Moss, and Robert D. Stephens.

The winners were presented local awards at the ceremony.

Five Aeronautical Center employees have won a top national award in the FAA's recent economy campaign, an effort on the part of the Agency to find short cuts to better production and to save money.

The winners are: Raymond R. Hastings, Virgil A. Fisher, Arthur L. Moss, Owen D. Harrell and Robert D. Stephens. They co-authored an economy suggestion that called for the development of a device to simplify moving steel bins during re-warehousing operation — in other words, when heavy equipment is stored, equipment must be moved from one area to another in the 15-acre warehouse at the Center.

The suggestion, designed to save a great amount of time and labor, placed second in the FAA's national economy campaign.

Two other employees of the Aeronautical Center received honorable mention for suggestions submitted to Washington. They received a cash award and a plaque.

Auddie Howard of the Aircraft Services Base worked out an improved method of inspecting and testing J-33 fuel nozzles. Robert A. Simmons, who works in electronics at the Academy, developed a simplified VOR (omni range) orientation simulator for operational flight service stations.

The five winners are in the Installation and Materiel Depot. Each received a cash award and bronze plaque. The presentation was made by FAA Administrator N. E. Halaby.

The Washington ceremony featured John W. Macy, Jr., Civil Service Commission Chairman, as guest speaker. Host for the ceremony was the Assistant Administrator for Personnel and Training, Robert Willy. The Orchestra of the U.S. Army Band, furnished the music.

Joe: "What season of the year is it when a cat walks across the Sahara?"

Blow: "I don't know. What?"

Joe: "Christmas. Sandy Claws."

JET GEMS THE TIN GOOSE



1930 13 PASSENGER HIGH WING FORD
"TRI-MOTOR" 150 MPH AIRLINER

Many a "fabric thumper" bruised his knuckles on the early corrugated aluminum covered Ford Tri-Motor when it entered airline service during the early 1930's. It became affectionally known as the "Tin Goose." The Ford Motor Company built 199 Tri-Motors in various models which were flown by 15 airlines in the U.S. and overseas. The Tri-Motor shown above is the Model 5-AT (for Air Transport) recently flown for publicity purposes by American Airlines. It will be given to the Smithsonian Institute for its Air Museum.

American Airlines and its predecessor companies operated 21 Fords until the airline retired its Tri-Motor fleet in 1936. This 77-foot wing span "work horse of the air" played a stellar role in the development of the Nations' air transport system—until it was out-numbered by the 20-odd passenger twin-engine Douglas DC-3 during the late 1930's.

The "Tin Goose" has an outstanding record of "firsts" and other notable contributions to our airborne welfare. On Monday, November 19, 1962, Number 9683 (above) made its "last first" by beating Eastern Airlines first scheduled jet flight out at the formal opening of the plush Dulles International jet airport at Washington, D. C. by 25 minutes! This was not 9683's first trip to Washington. Its log books show that it flew there from Chicago on July 26, 1934 in six hours and nine minutes. American Airlines Lockheed Electras now make the same trip in about two hours!

A few comparisons will show the amazing progress in the air transport industry since the heyday of the "Tin Goose" 30 years ago. The Ford Tri-Motor carried 13 passengers, cruised at 150 MPH, had a maximum range of 500 miles (scheduled flights were approximately 180 miles) and cost \$55,475.00. Today, American Airlines/Convair 990's carry 100 passengers, cruise 600 MPH for 3000 miles (scheduled 400-1000 miles) and cost \$4,500,000.00! The Ford's gross weight was 12,650 lbs — payload 5000 lbs. The 990's gross weight is 240,000 lbs and its payload is 26,640 lbs. The fuel capacity of the "Tin Goose" is 277 gallons of avgas — the 990 — 15,173 gallons of kerosene. The Goose was powered by three 450-hp 4-cycle (suck, squeeze, band and blow) piston engines. The Convair 990 is powered by four hot air jet engines each developing 16,000 lbs of thrust! The Goose used 120 gallons of avgas per hour and the 990 uses 2,000 gallons of kerosene per hour! The fuel weight of a fully fueled 990 approximates one-half its gross weight and four times its payload — which includes approximately seven times the number of passengers carried in the Goose!

In 1931, when the "Tin Goose" ruled the airways, American Airlines carried 53,000 passengers — in 1961, using mostly jets — 8 million passengers! Thirty years ago it took about 30 hours to fly from New York to Los Angeles, today a 990 can make about three round trips in that time!

Jets now provide eighty percent of the domestic trunk airlines (11) service compared with five percent four years ago. Turbofan (bypasses an additional large mass of air through a separate passage, housing lengthened compressor or turbine blades) aircraft account for one-quarter of all jet aircraft equipment.

MERRY CHRISTMAS — A Happy, Healthy
and Successful New Year

"Speed" Shedenhelm

* * *

The current emphasis on education in our colleges is reflected by one Southwestern University that rules that no athlete can be awarded a letter unless he can tell at a glance which letter it is.

AERONAUTICAL CENTER PHOTO STAFF DOES WORK-HORSE JOB

The wind was whipping the coat tails of the man as he stood in front of a building of the Aeronautical Center. The "G" forces were pulling at the arms of another, as he tried to get the proper focus and composition of his camera. Another was crowding into a small area, doing his best to get a picture of the area he wanted.

These are only a few of the every day happenings of the photo staff of the Aeronautical Center.



The Aeronautical Center photo staff: Back row, left to right, Gene Acree, Ray Johnsen, George Myers and Lindal Butler. Front row: Dick Peterson and Dave Brian. Not in the picture is Melvin Sullivan.

Under photo chief Dave Brian, the four-man photo staff, with two more workers in the Diazo Unit, turns out literally hundreds of prints each month in the standard operation.

The newest phase of the photo operation is the Calumet color print processor. Another Calumet machine has been added for black and white processing too.

"This will enable us to turn out more work than we have been doing, and at the same time offer a better service to the Aeronautical Center operation," Brian said.

"We will be able to turn out a continuous flow of color work for our operation."

The newest member of the photo staff is Richard Peterson, former staff photographer of the Daily Oklahoman and Times. When at the newspaper, Peterson was trained in color work, and the experience he brings to the Aeronautical Center adds to the capabilities of the organization.

Just like everyone else, Brian often gets requests from various divisions of the Center for work "needed yesterday," and they usually are able to get it out in rapid order.

Brian predicts that in five to ten years, all photos will be taken in color, for black and white prints can also be made from the color negatives.

It could have been done in the past few years, but it wasn't too practical, because of the cost involved.

On an average month, the production work of the Photo department truly resembles any big time photo operation, and look at the results they produce: 2,200 black and white prints, 425 photos taken, 50 color photos taken with 160 color prints made, 125 color slides, 400 black and white film positives, and 50 large prints mounted.

The photographers are versatile, with only the type of equipment restricting their ability.

Technical jobs often come in on work orders, and the photo staff works until they are done. "The impossible just takes us a little bit longer," Brian says with a smile.

One recent job was a request for them to photograph a printed circuit on a translucent base. The circuits were printed on both sides, and when the lighting came into the picture, problems were mounted end on end.

Finally it was solved, with the use of some black paper.

Brian is a 20-year veteran of the Air Force, and appreciates the various problems that arise in Governmental operations.

The photographers often fly in FAA planes, taking pictures of instruments in various stages of operation. "The G forces present unique problems, and we have to overcome them in the work," Brian added.

Staff members George Myers, Ray Johnsen, and Butler E. "Gene" Acree, are as apt to be in the dark room, turning out prints as they are to take the pictures.

Lindal Butler and Melvin P. Sullivan work in the Diazo unit.

Oklahoma weather often gives the photographers troubles, and on some occasions a second and third try will be required because of cloud conditions.

Another interesting project the department has done, is the photographing the instrument panels of the large aircraft. The pictures are then blown up to life size and this device aids the teaching of students, without actually going into the aircraft itself.

"After the picture is taken, then we come back to the shop and wait to see what develops," Brian concludes.

Those who have received photo products have learned that "Only the good products leave the dark room."

DEL CITY HIGH SCHOOL STUDENTS RECEIVE INSIDE LOOK AT CARI



One of the advanced science classes at Del City high school was a November visitor to the Civil Aeromedical Research Institute at the Aeronautical Center.

This group was of the several hundred students who toured the vast Aeromedical installation during the month.

* * *

Did you know that 50 per cent of the married people in New York are women?

WINTER MONTHS BRING DRIVING HAZARDS

No matter how you look it over, you'll have to admit that there is not a lot we can do about driving safely these days.

The woman in the backseat, with the loud and piercing voice, the windshield wipers that are too slow, and the sun comes up too late and sets too early.

As we say, there isn't a thing we can do about it.

Of course we're talking about the driving habits of all the employees who guide a mechanical monster to work, or ride in a car pool.

However there are a few tips you can keep in mind some morning when you start to work and the old bus is frosted over and the streets are covered with ice.

Here are a few driving hints to remember:

1. Try and go out a few minutes early, before the clock says it's time to go to work. Start up your car, turn on the heater, and if necessary, the defroster too.

2. If at all possible, leave for work a few minutes early. You might arrive a few minutes early . . . and too you might arrive safely too. If you have to barrel down a street, with patches of ice on it . . . you may not arrive at all.

3. Leave a window slightly open, to get some fresh air into the car. You never can tell when those deadly fumes may creep into your auto, and that's all it takes brother.

4. Watch those bridges. The street might be clear of ice, but the air changes much more rapidly under a bridge or culvert, and ice can quickly form there.

5. Carry an old burlap sack, hunk of rug or some other bulky piece of material in the trunk of your car. It works real well when your rear tires spin on a slick spot and you get stuck.

6. Watch for other drivers in trouble. Just remember . . . if you get in trouble, you'd want some one else to help you.

CENTER MAN PICKED DIVER OF THE YEAR

The water was cold and dark, and the SCUBA diver could see but a few feet in front of him.

Suddenly he realized his buddy wasn't anywhere near him.

Quickly he started a search for the buddy as the sharp metallic ping gave the signal of trouble!

The scene was in Grand Lake, northeastern Oklahoma's beautiful lake, and the characters in the drama were Don Rowland, Medical Technician, of the Pharmacology and Biochemistry Division of the Civil Aeromedical Research Institute, Aeronautical Center, and his diving buddy.



"We were down about 65 feet in Grand Lake when Bob's regulator quit and he started toward the surface fast. When I arrived near him, I saw he was very short of air. We got to the surface and I inflated his life vests and then helped him some 75 yards to shore."

In his own modest way, Rowland gave a description of the act which earned him the "Diver of the Year" Award by the Oklahoma City Blue Gills, SCUBA Diving Club.

"When I learned I was to receive the award," Rowland recalls, "I was the most surprised guy in the place. It is the greatest honor I have ever received."

A towering trophy goes with the award, and Rowland denies that he did anything that any SCUBA diver wouldn't have done.

The Oklahoma City native is very enthusiastic about his hobby of skin diving.

"There is nothing like it. It's the greatest sport in the world," he says with a smile.

Rowland said that the divers cover most of the large lakes in the state, diving and searching for "rough" fish.

"We shoot carp, buffalo, white bass and other rough fish, with a spear gun," he explained. "You see, it's against the law to shoot game fish in this manner."

In gathering the necessary equipment for SCUBA diving, Rowland said that it would take take about \$150.00 to buy the most practical equipment.

"We advise strongly the learning of diving from a trained instructor," he added. "Once you learn the use of the right equipment, and how to swim, then you'll find a new world."

Oklahoma lakes are excellent for SCUBA diving, with divers finding a thermocline some 35 feet down during summer months. "You can actually put your hand in different areas and feel the difference in water temperatures."

Rowland commented there are very few cases of the "bends" among trained divers in Oklahoma because the knowledge of diving techniques prevents this danger.

What actually happens, when a person gets the bends is this: Nitrogen gas comes out of solution in the blood stream and forms little bubbles. When this gas is normally carried away, by the lungs there is no danger. When a person rises from deep water too fast, the nitrogen gas is not carried away and it escapes through the body.

Only one case of bends has been reported in Oklahoma in the last few years, and that was because the diver was untrained, Rowland said.

Rowland smiles when he describes how to "shoot" a big carp.

"I like to just sit down on a stump in the water and wait. Pretty soon the perch or blue gills come along and look you over. Then the black bass move in and also give you a good look. It sure is a temptation not to shoot one of those big babies. Pretty soon here comes Mr. Carp and you pop him. It takes a lot of patience."

Rowland says the white bass swim in huge schools and the water literally boils when they come by. They are good targets too.

He commented that he was swimming last summer and started to come up near shore when he heard some things hitting near him in the water. Soon realizing it was some fishermen throwing plugs in his area, he made tracks for deeper water.

"They saw my bubbles and thought there was a school of white bass there. They were sure surprised when they did find out it was a diver."

Rowland feels that a youngster, who is interested in skin diving, should learn the fundamentals when he is 8 or 9 years old.

"After all, if you are going to be around water, as many Oklahomans are doing these days, it is best to respect that water. SCUBA diving is the best way to learn," he concluded.

* * *

Employee Health Benefits Mount

The 36 plans participating in the Federal Employee Health Benefits program have reported that almost \$338 million of covered hospital and medical expenses were incurred by Federal employees and their dependents during the first contract period — July 1, 1960, through October 31, 1961 — the Civil Service Commission recently reported.

Of the total expenses, the two Government-wide plans reported about \$269.4 million, the 13 employee-organization plans \$45 million, the 13 group-practice plans \$16.9 million, and the 8 individual-practice plans \$6.7 million. The Government-wide plans are the Indemnity Benefit Plan and the Service Benefit Plan.

For the first contract period, employees contributed about 62 percent and the Government 38 percent of the premiums paid to the plans.

In reporting on the first 16 months of operation of the program, the Commission said that 23 of the plans, including the Government-wide, employee-organization, and individual-practice plans, are required by the terms of their contracts to be "experience-rated." These plans cover 96 percent of the total Federal employee enrollment.

The experience of the first contract enabled most of these plans to add new benefits during the second contract period without raising premium rates. Fifteen of the experience-rated plans will also be able to hold their initial premium rates through the third contract period which began November 1, 1962, and ends October 31, 1963.

The Federal Employees Health Benefits program is the largest employer-sponsored group health benefits program in the world. About 2 million employees and almost 4 million of their dependents are covered by the program.



...AND WHAT MAKES YOU THINK YOUR SECTION DOESN'T LIKE YOU?

EMPLOYEES ASSOCIATION OFFICER CANDIDATES NAMED

A list of candidates for Employee Association offices have been named by the Nominating Committee.

The election is to be held past Beacon deadline time, and the winners will be announced in next month's edition.

Those nominated were: President; Russell Fleming, PT-954, Bob Payne, PT-948, Bob A. Smith, IM-988, Dick Wenzel, IM-907.

First Vice-President; Joe Basham, PT-930, Don Brooksher, PT-964, Al Camire, IM-980, Jane Fanning, IM-972 and Frank Gilkes, FS-940.

Second Vice-President; Gerald Enos, IM-996, Frank Fuhrer, PT-955, Boyce Hill, PT-930, Warren Thompson, FS-995.

Third Vice-President; Ruth Hodgkinson, AC-123, Welcome Holliday, AC-1, Betty Spears, AM-70.

Secretary; Pat Bonifield, PT-930, Vivian Cox, PT-955, Joann Gunn, AC-116, Norma Jean Wrinkle, AC-123.

Treasurer; Wanda Gaines, AC-123, Gilbert Mooney, AC-123, Cecil Sullivan, AC-120.

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Christmas Dance Liked By All

Control Systems Division launched the holiday season Saturday, December 8, with its First Annual Christmas Dance, held in the Mirror Room of the Municipal Auditorium. Over 150 members of the Division and their guests were present.

Music was furnished by the Meltones, under the direction of Joe Tornello, with Control Systems Division in the Computer Services Branch.

Red bells and greenery decorated the tables, and a silver Christmas tree shared the stage with the Meltones. Back drop for the stage was a Christmas mural painted by 12-year-old Ione Crockett, daughter of Florine Crockett, in the Aircraft Registration Branch. Boxes of candy were distributed during intermission as door prizes, and the evening was unanimously declared a huge success.

CENTER HAS OWN POST-SEASON FRAY — "THE FLAB BOWL"

Christmas season or no — we have a football league in the Air Traffic Training Division! The season started a little later than most, may not last as long as most, and only consists of two teams — nevertheless they're killing each other playing touch football. There have been two games so far (the latest one, on Sunday, December 9, dubbed "Flab Bowl") and we think there are plans for more till the snow comes to the players' ears at least.

The "playing" is done at Will Rogers Park with kick-off time usually between 1:30 and 2:00. The teams are called the ATC Bulls and the FSS Pinkies — obviously named by the Bulls. The Bulls include the Air Traffic Control Specialists in the Division and the Pinkies include the Flight Service Station Specialists.

So far, the Bulls have conquered in both trials and, as an impartial reporter, it should be added that the mighty ones are a bit heavier than the losers. But the Pinkies still refuse to admit defeat and will most likely be working up another game — soon. It would be nice to list all these heroes by name, but glory if one were omitted we'd have to print a public announcement and besides the team members rotate weekly, almost — what with bones, muscles, gristle, etc.

They plan to take time out to enjoy Christmas without stiffness, but it looks as though most Sundays you can find these boys engaging in what they call "touch" football (which could be better termed "punch" football) at Will Rogers Park.

• • •

"What can I do about this terrific toothache?"
"When I get a toothache," the friend replied, "I go to my wife, she puts her arm around me and caresses me and comforts me and pretty soon the toothache goes away."

"Fine!" exclaimed the victim, "Is she home now?"

• • •

Did you hear about the wife who cured her husband of the "have to work late at the office" routine?

She asked him if she could depend upon it.

NEW FACES AT AIR TRAFFIC TRAINING DIVISION

With the Christmas season here, this season finds quite a few people gone, who were in the Air Traffic Training Division the last few years.

For instance, Fred Fairweather, who was the Chief of the En Route Training Branch, now is in Tokyo after being at the Aeronautical Center for six years. Other recent departures include Ron Bereman to Guam, Ron DeGarmo to NAFEC in Atlantic City, Guy Griffin across the field to the Will Rogers Flight Service Station, Leroy Hurd to the Ft. Worth Center, Bob Major to Mason City, Iowa, and Maxine Thornton to look after her baby girl.

Returning are Ted Smith, who just came back from a year's assignment in Saudi Arabia, Charles Hough moved here from the Pittsburgh Tower and Charles Smith also from Pittsburgh. John King joined the division from the Training Development Division. Elwood Moeskau from Grand Forks Flight Service Station, and Chris Simons who took Maxine's job.

AIR/GROUND POSITION IN FLIGHT SERVICE STATION LABORATORY

Most trainees — and seasoned journeymen specialists — are eager to work the air/ground position in a Flight Service Station. To the trainee, it is a challenge to determine application of material he has been studying the preceding four weeks in the class room.



When working this particular position, anything can happen, sometimes on single occasions and many times in multiple instances. This places the trainee under constant pressure and tends to hold his interest at a high pitch.

The trainee has been on the position for a time, being faced with only routine contacts, keeping track of inbound and outbound flight plans, when suddenly — "OKC Radio — this is Bonanza 1234-A . . . I AM LOST . . . CAN YOU HELP ME?"

After only a moment's hesitation and with a bit of tremor in the voice, the trainee answers,

"BONANZA 1234-A, THIS IS OKC RADIO . . . WHERE DID YOU DEPART, . . . WHAT IS YOUR ROUTE OF FLIGHT . . . DESTINATION . . . PRESENT ALTITUDE . . . FUEL REMAINING . . . LAST KNOWN POSITION AND TRUE AIRSPEED?"

The pilot replies, supplying the requested information. In this particular case and according to information received, the trainee then requests type of navigation equipment aboard. The pilot advises that there is VOR, but that he is unable to locate the proper charts. The trainee gives then the frequency of a VOR that should be in the vicinity of the aircraft.

He requests from the pilot the TO or FROM indication being received, repeating the process until he had a cross fix on the proper chart, thereby identifying the position of the aircraft. The trainee can now direct the pilot to the nearest airport or give the pilot the correct heading to reach his original destination.



Time goes on. There is another period of routine operations. This does not give the trainee a feeling of security because he knows that anything can happen.

POSSIBILITIES. An Air Route Traffic Control Center calls with an IFR clearance; the pilot of an aircraft requests conditions of an airport in Montana; another requests to file an IFR or VFR flight plan. The trainee must be ready and able to answer all types of requests from pilots of aircraft in flight.

After a trainee has been subjected to any and all the aforementioned situations, the lead instructor finally advises, "Clocks are Off". Even though the trainee may be somewhat apprehensive as to what will happen when he has a turn at the position, we feel sure he has gained an insight to what will be expected of him as a journeyman specialist.

Clyde Little

TURKISH STUDENTS FEATURED IN STORY



The above photograph is of Turkish participants who are enrolled in electronics courses at the FAA Aeronautical Center, Behnan Ali Ataman and Remzi Turhan. They are shown with Radar Instructor Gerald Dobson in the Radar Laboratory of the Aviation Facilities Training Division of the FAA Academy.

Students Ataman and Turhan were selected by United States Information Agency, Turkey, for a special feature article on the training they

are receiving at the Aeronautical Center and how it will be used in their work when they return to Turkey.

In addition to "working" photographs submitted to illustrate the article, there were pictures of the men with their respective host families at their homes on Thanksgiving Day. One of these pictures showed Mr. Turhan looking at a special book on Thanksgiving, prepared for him by the second grade class of Putnam City School. The small son of his host family, the Ross Harlans, just happens to be in the second grade of this school. Mr. Turhan says this will be cherished as one of the most important mementos he will take home with him.

New OMB Materiel Division System Is Being Installed

A materiel distribution system which will increase space utilization 25 percent and save some \$65,000 a year in rent, utilities and building operating costs for the Depot's Materiel Division is nearing reality.

The new system is necessary because of the sharp increase in both volume and types of items processed through the warehouse.

When the system is operating fully, it is estimated that manual handling and trip time for movement of materiel will be reduced to an extent it will enable the Operating Materiel Branch to save 10 man years of work annually which can be utilized on other more essential tasks.

Other products of the system will be quicker service to customers, reduction of processing time, better control of storage locations, standardizing of storage practices and improved housekeeping, safety and security practices.

Briefly, the system involves handling materials mechanically by means of monorail and Guide-O-Matic carriers throughout the OMB area, systematic warehousing and filling of orders, and automatic processing of paper work.

Push button control for collating orders, and transfer of incoming materiel to proper areas will reduce drastically the long hauls of forklifts and time consumed in manual stock picking as is now done.

Basically, the OMB function consists of:

1. Movement of materiel to and from the Aeronautical Center.
2. Storage, packing and movement within the Center.

The new system will convert the entire operation into an automatically controlled process.

Total cost of the new system for a "turnkey" installation amounts to an investment of about \$111,000.

This includes \$7,000 for installing the monorail, \$42,000 for the Guide-O-Matic system of carriers, and \$62,000 for carriers for the monorail, belt conveyors, collating system and electronic controls.

Cost of the monorail system was reduced by some \$36,000 when a surplus system from another Agency was obtained.

Similar systems of warehousing have proved successful in commercial industry and other Government agencies.

NEW FOG CHAMBER AIDS FAA RESEARCH

Close studies of runway lighting when visibility is low are underway in the new FAA fog chamber, built for the Agency by the University of California at its Engineering Field Station, Richmond, Calif.

Making a major step in this type of work, the chamber provides a laboratory for lighting research in fog conditions that is superior in size and design to any facility previously available.

Workers there will aim at the development of lights and lighting standards to increase the safety and efficiency of low visibility conditions.

The chamber is 800 feet long and 30 feet wide and the roof slopes from 30 feet down 10 feet. The outside appearance shows a long, single-story shed.

Fog in the chamber is made by a mixture of compressed air and water and the fog is very similar to the actual conditions.

The 5,000 feet of pipe and 74 nozzles produces varying densities of fog for the system.

Experimental lighting systems of airports are laid out on the asphalt floor at a ten-to-one ratio. A total of 2,850 lighting fixtures have been installed and are connected with more than 200,000 feet of wire and cable.

Near the top of the room, a light plane cockpit rides along steel rails in the manner of an aerial tramway. Three persons can ride in the cockpit, and the tramway slopes from the 30 foot high end to the lower 10 foot end.

Persons riding in the cockpit can simulate approaches and landings up to 130 knots. The cockpit can also be moved laterally, to simulate off-center landings.

The runway threshold is located halfway down the 800 foot building. If you were to ride in the cockpit, you would see the end of the runway as if from 6,000 feet out. The simulated runway appears to stretch some 4000 feet on down the floor.

Daylight can come into the building during those hours, for the sides and top of the building are made of translucent plastic, to permit light to enter and aid the studies of daytime fog conditions.

One of the tests being conducted in the operation is to examine the effect of light scatter from approach lights and the relation between candlepower and longitudinal spacing of runway centerline lights as they affect visual range.

Further studies will deal with approach, runway and touchdown zone lights and lighting patterns.

The research activity is being done by the University of California's Institute of Transportation and Traffic Engineering under a \$155,500 FAA contract. The contract includes the fog chamber and a test series that is scheduled to run to March 15, 1963.

Taking part in the project with the two groups will be commercial airline pilots invited to evaluate lighting patterns, spacings and intensities. An advisory committee of jet pilots helped design and plan the test program.

Data will be collected in the fog chamber tests by cameras, photometers, and various other pieces of measuring equipment.

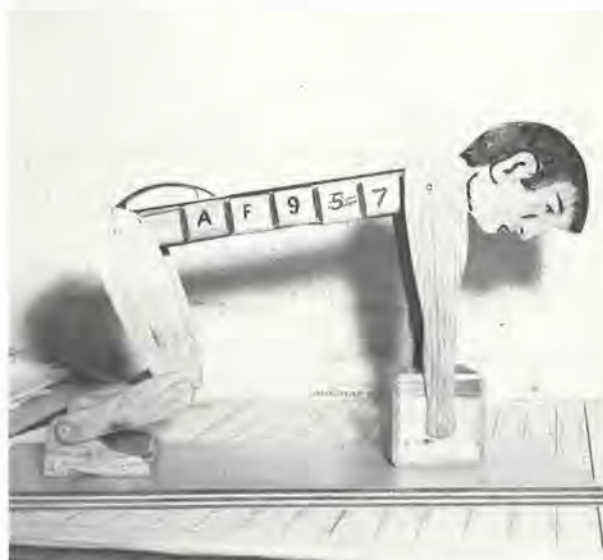
Before the new fog chamber was constructed, tests have been done outdoors in natural fog, or artificially generated smoke.

THERE IS NO REASON TO SAY "OH, MY ACHIN' BACK"

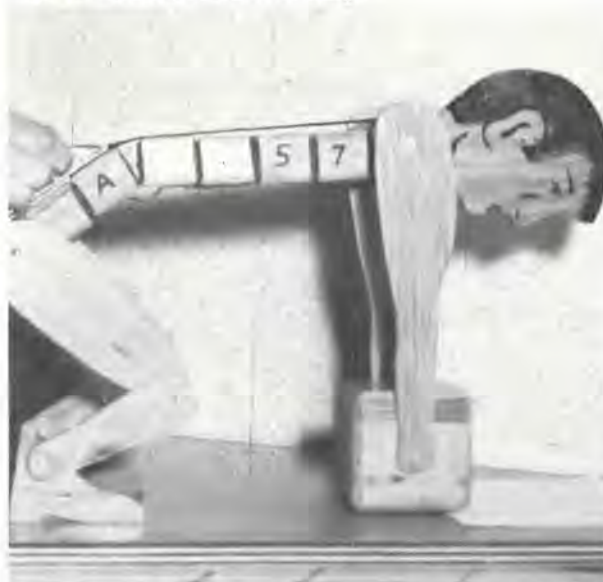
A very visual and graphic bit of equipment has been created by Frank E. Sylvester, FS 980.5.

The clever working device is called "Mr. Wooden Head" and easily points up the way various things should be lifted.

This dramatically brings home the important message, and after playing with the model for a few minutes, it is easy to see the proper way to pick up a heavy load, with the knees bent, back straight.



1. Incorrect position for lifting.



2. Note strain, area (A) after weight is being lifted.



3. Correct position for lifting.

Approximately one-fourth of all disabilities suffered by American workmen is caused by improper handling of materials. If Mr. Wooden Head can get his message across sufficiently well to prevent even one disabled back, the time and effort it takes to make him is well spent.

The little model is another first for Monroe Ebner's crew in Hanger No. 8. These men constantly try to improve their work conditions and procedures through implementation of tools and visual aids such as Mr. Wooden Head.

As they say in Hanger No. 8, "Learn to lift correctly. Don't be a Wooden Head."



THE P-38 IS BACK IN OKLAHOMA SKIES

During World War II, the skies over Oklahoma City were often filled with various kinds of aircraft, and one of those often seen was the Lockheed P-38.

The plane, that gave a loud whistle when it flew, was known for its fine combat record in the Pacific Theater during the war.

The plane was based at Will Rogers Field, when the Air Force had one of its locations here.

Today the P-38 has returned to the area, but this time under the ownership of an Aeronautical Center employee and several other men of central Oklahoma.

Center employee, Don Burnworth talks with the joy of a child with a brand new electric train, when he talks of the '38.

"Oh, it's a fine airplane. The only thing wrong with it is that it burns about 75 gallons an hour of fuel. The way airplane gasoline costs these days, it takes a nice little tab to fly it."

The plane is almost new, with just 70 hours on the twin engines and not much more than that on the whole aircraft.

One of the owners, Vernon Thorp, delivered a plane to the Washington, D.C. area, and saw the P-38 sitting on a little airport at Hyde, Maryland. "There she sat," Thorp said, "and I fell in love with her. I checked it out and found that plane was for sale."

The owners put up close to \$2,000 for the plane and since then have put an additional \$6,000 more into modernizing the aircraft.

"We are going to get a permanent license for the plane," Burnworth said. The last time it was licensed was in 1956, and since then the

plane had not been flown before it took to the air to come to Oklahoma."

They are still working on it, and they hope to fly it before the first of the year. "I'll be the first one to fly it," he said with a big grin.

Former P-38 pilots seem to be coming from every part of the state, now that word has gotten out that there is one of these in action again.

The ship cruises at the most economical rate at about 300 miles an hour, and with the present fuel tanks on the plane, could fly to Los Angeles without stopping . . . or that range.

The P-38 was the first American aircraft to exceed the speed of sound, and was the first fighter plane owned by the Allies to stay with the bombers all along their mission. Most other fighters had to turn back, but the P-38 made the whole trip.

It was also the first twin-engined fighter plane used by U.S. forces.

The plane was very well liked by pilots, and this aircraft is no exception as far as the owners are concerned.

They have made plans to convert it into a two-place plane, so that two of them can fly at the same time.

All but one of the present owners are members of the Oklahoma City Glider Club.

Burnworth has a glider rating, and they fly out of the Yukon field with the glider.

What about the future of the plane?

"Well, we've had a lot of people asking about it, and quite a few would like to buy into the ownership with us. We'll just have to wait and see."

* * *

A friend asked the driver of a sports car . . . "What is that long wall we keep driving past? It must be ten miles long." "That's no wall," replied the driver, "that's the curb."

* * *

Seven-year-old to father, "Before you married Mom, who told you how to drive?"

* * *

What they need in those electronic brains is one that will get us out of all the troubles the human brains get us into.



POINTING TO HIS COUNTRY, INDONESIA, is recent visitor to the Aeronautical Center, R. Tjokroadiredjo, who permitted the shortening of his name to "Mr. Eddy". During his three-weeks visit in Oklahoma City, Mr. Eddy toured all areas of the Aeronautical Center and was enrolled in the ATC Short Course. Also shown with him in this picture are, left to right: W. E. Godfrey, Installation and Materiel Depot; W. M. Jackson, Assistant Manager, Office of the Manager, Aeronautical Center; Robert L. Sicard, Chief, Aircraft Services Base; and Enar B. Olson, Director, FAA Academy.

Mr. Eddy is Assistant to the Ministry of Air Communications in Indonesia.



This is the new sign that greets employees and visitors to the Aeronautical Center. Constructed by the Oklahoma City Airport Trust and City of Oklahoma City, it offers an attractive entrance to the rapidly growing Aeronautical Center.

FAA ACADEMY PRESENTS AWARDS



June Weedn, Training Development Division, receives an Award for Sustained Superior Performance from Enar B. Olson, Director of the FAA Academy.



Annie M. Millsaugh, Non-Resident Training Division, receives a Sustained Superior Performance Award from Director Olson.



Leo J. Brandt and Frank Tuckett, Air Traffic Training Division, receive Suggestion Awards from Director Olson.



Director Olson presents awards for suggestions made by Morris Johnson, Eugene Reichart and William Twitty. They are from the Aviation Facilities Training Division.



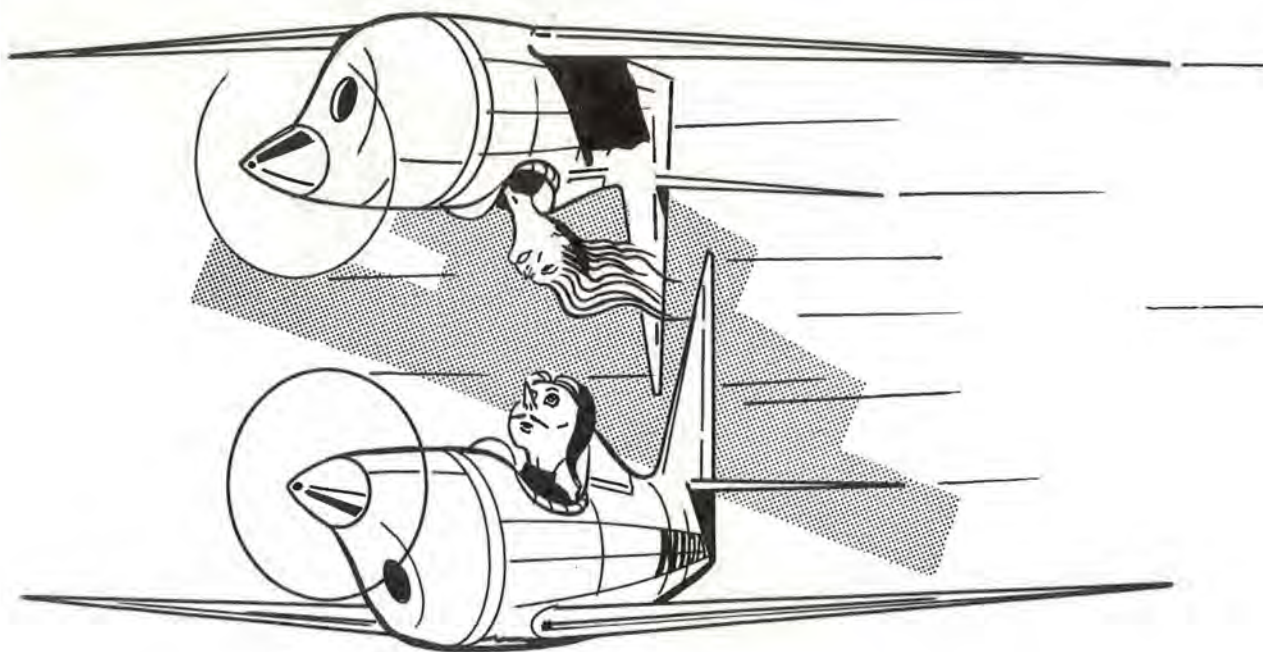
The only FAA "airport" control tower for a seaplane base — and a skiplane base during the winter months! — is located at the Lake Hood - Lake Shepherd Seaplane Facility at Anchorage, Alaska. Here you see Lake Hood, the seaplane canal joining the two lakes, the airport control tower in the center of the picture, and in the background is Mt. Susitna.



Technicians in Alaska servicing Instrument Landing System Antennas during a heavy snowstorm.



Long range radar facility at Fire Island, Anchorage, Alaska, showing Turnagain Arm and Chugach Range in background.



"I'M SORRY JOHN, BUT WE CAN'T GO ON MEETING LIKE THIS."

TOWERY WINS HUMOROUS SPEECH CONTEST

Frank Towery, PT-970, won the annual Toastmasters Club Humorous Speech Contest in El Reno November 30. Frank's winning speech was entitled, "I Specialize." He related his experience as a carpenter who specialized in building "privies" in Arkansas in his younger days.



Frank attended the University of Arkansas, served a tour of duty in the Armed Forces, and subsequently joined FAA where he is employed as an instructor in the Nav. Aids Section, Directed Study. He is the Secretary of the Will Rogers Toastmasters Club whose membership is mostly FAAers of the Aero. Center.

Second place went to Don Schwerzler of the Red Sands Toastmasters Club, Clinton-Sherman AFB, and third place went to the President of the El Reno Toastmasters Club, Ray Musgrove.

Dick Hudgins of PT-975 and Area Governor for Toastmasters Clubs in Oklahoma City, El Reno, and Clinton-Sherman AFB, all presided at the contest. Will Rogers Toastmasters Club was represented by forty members and guests. Dick Gober, the master judge for the contest, was assisted by Herb Jackson and Art Holmberg as judges. Art Schmitt was vote counter and Luke Lucas was the official timer.

Our congratulations to Frank for winning the contest and to Dick Hudgins for organizing and planning the program which was highly entertaining.

Nobody thinks twice about baldness — on the other fellow.

"Time Marches On"

Time and circumstances claimed another old timer at the Aeronautical Center when Henry F. Hardee, of FS-995.8 was granted disability retirement on September 13, 1962 after 15½ years of Government service. Twelve years were spent at the Center.

Henry was born in Valdosta, Georgia, February 14, 1917, and has had wide and varied experience in aircraft engine and instrument maintenance.



Mr. and Mrs. Henry Hardee enjoy some of their friends at a going away party when he retired early in September.

Back in 1935 when aviation was in its lean years, Henry was a mechanic on crop dusting aircraft in Wisconsin.

He pulled a hitch in the Air Force as aircraft engine mechanic and instructor from 1941 to 1943. He worked a time for Civil Service at Warner Robbins Air Force Base, Georgia, as lead engine mechanic. After attending the Embry Riddle School for Aircraft and Engine Mechanics, he received his A&E license in June 1945. Shortly thereafter he worked for TACA Airlines in Miami as crew chief. He also worked for CENNRA Air Transport in Shanghai, China, as crew chief in 1947.

On returning to the Continental United States he worked for Continental Airlines as A&E mechanic.

He attended the Spartan School of Aeronautics and received his Instrument Maintenance Certificate in 1950 and went to work at the Aeronautical Center for CAA as A&E mechanic.



Dorman Knight, Illustrator for the Graphics and Publishing Branch, Administrative Services, is shown at work on the new cover of the Aeronautical Center Telephone Directory. Knight created the cover for the new book.

This holiday season is always considered a joyous time of the year — a time for giving and a time of high resolve for the New Year that is upon us.

To all of us at the Aeronautical Center and those in all the farflung areas that make up the Federal Aviation Agency it might be well to carry the idea of giving and high resolve into every day's work. Simply adding "for" to "giving" and remove the "re" from "resolve" would go a long way toward making a better place to live and work.

Now . . . in the spirit of the times . . . A Happy Holiday and New Year to All!

Lewis N. Bayne, Manager
Aeronautical Center.

Holiday Greetings and Best Wishes from all of us at Control Systems Division to our fellow employees at the Aeronautical Center.

Jay H. Moody
Assistant Chief,
Control Systems Division

"May all of us at the Civil Aeromedical Research Institute extend a most sincere wish for a joyous Christmas Season and hope the New Year brings success and happiness to every one at the Aeronautical Center."

Dr. George R. Steinkamp,
Deputy Civil Air Surgeon for
Research and Operations.

Ronald Pulling, Manager, Installation & Material Depot

"We pray that this Holiday Season will bring to you all the full measure of joy and lasting happiness which we all seek."

Enar Olson, Director, FAA Academy

No matter in which fortune or circumstance we find ourselves — and no matter how many times we hear them — the Seasonal Greetings of "A Merry Christmas and a Happy New Year" brings a warming of the heart and a quickening of the spirit. I feel most privileged to be able to exchange this greeting with each of you, and to join with you in hoping the coming year sees us further down the road towards our dream of "Peace on Earth, Good Will to All Men."

Earl E. Blanchard, Chief, National Field Operations Headquarters

We pause briefly in our constant surveillance of Air Navigational Aid to express to our employees, for a job well done, and to the other members of the Aeronautical Center family, the wish for a very happy Holiday season and a safer flying New Year.

R. L. Sicard, Chief Aircraft Services Base

Along with Season greetings is a note of thanks and wishes for special joy from the Aircraft Services Base.



FEDERAL AVIATION AGENCY
Washington 25, D.C.

December 6, 1962

TO ALL FAA EMPLOYEES:

December 10, 1962 marks the fourteenth anniversary of the adoption of the Universal Declaration of Human Rights by the United Nations General Assembly.

President Kennedy has asked the citizens of our nation to observe the week of December 10 to 17 as Human Rights Week. He has also proclaimed Monday, December 10, as Human Rights Day and December 15 as Bill of Rights Day. I am calling upon all of you, as employees of this Agency dedicated to service, and as citizens of this country dedicated to liberty, to join in observing this week.

It is an appropriate time for us to pause and reflect upon the blessing of freedom and the right to human dignity which that blessing confers. But concurrently, we must also think of our responsibility to guard and protect that blessing for ourselves and our fellow man. We must remain always aware that the rights of all men become vulnerable if the rights of any man are lost.

Let us observe the spirit of Human Rights Week every week.

N. E. Halaby
N. E. HALABY
Administrator





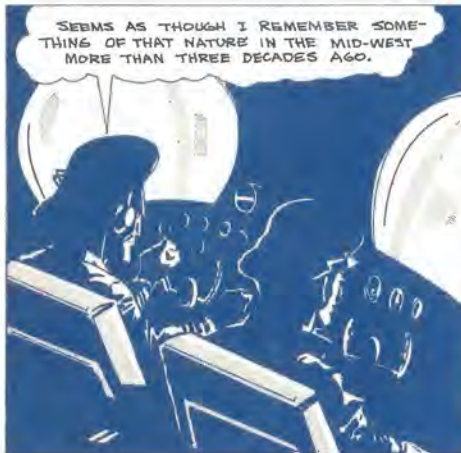
THE NEW DULLES AIRPORT AT CHANTILLY VA. IS TWICE THE SIZE OF NEW-YORK'S IDELWILDE.

IT IS DESIGNED WITH PASSENGER CONVENIENCE AND COMFORT IN MIND

THE MAIN TERMINAL BUILDING IS AN ARCHITECTURAL IMPRESSION OF FLIGHT ITSELF

IT IS TRULY ONE OF THE BUILDINGS OF TOMORROW

FINANCED AND CONSTRUCTED AS PART OF THE FAA'S NATIONAL CAPITALS AIRPORTS!



AS THE AIRLINER PROGRESSED, THE AIRFIELD ALSO CHANGED BUT THE PROCESS WAS LITTLE NOTICED BE- CAUSE ATTENTION WAS ALWAYS ON THE PLANE IN THE SKY AND THE VIEWER USUALLY LEFT THE SCENE ONCE THE AIRCRAFT DEPARTED

SAFETY FEATURES SUCH AS THE OLD ROTATING BEACON WERE THE BEST KNOWN OR MOST VIVID SYMBOL THAT INDICATED AN AIRPORT TO THE AVERAGE PERSON BUT THEY WERE ONLY SEEN AT NIGHT!

