HORIZONS

Read: "Boyd's Eyeview of Alaska" Page 2

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Computer Predicts Plane Damage

By Frank McHugh

ATLANTIC CITY—By using a computer, FAA aircraft safety engineers can now predict with fair accuracy just how a transport fuselage will break up during a crash landing, an agency engineer said here recently.

The information will be useful to designers of new aircraft to determine when structural loads will exceed airplane design loads.

At a press briefing held at NAFEC, Joseph Jaglowski said that Convair-San Diego has developed a computer program under FAA contract which calculates various forces encountered by an aircraft during a crash landing.

Inputs to the program include items such as aircraft weight, impact velocity and angle of slope of the ground. The data came from tests which have been run here since December 1967.

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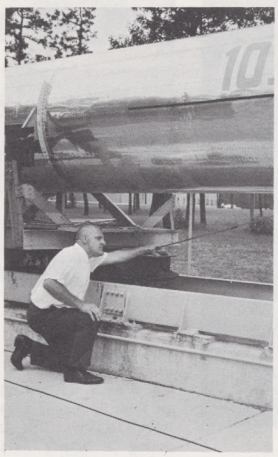


Ready

Technician Walter M. Sturko checks a 30-foot long one-fifth scale fuselage model ready to be catapulted down a track at NAFEC. Inside the fuselage are 10 accelerometers and four strain guages to measure forces.

McKee Retires As Administrator

WASHINGTON—General William F. McKee, who retired July 31 as Administrator of the FAA, guided the agency through three productive years marked by such aviation milestones as the awarding of contracts for the construction of the supersonic transport, the formation of the Department of Transportation and the development of a national awareness of the critical role aviation plays in the economic future of the United States.

In accepting the Administrator's resignation with "genuine regret," President Johnson told him in a personal letter:

"Under your leadership, the FAA helped the nation recognize the need for expanded and modernized airport and airways systems. You applied new regulations to improve greatly our air safety record. And you brought wise and prudent management to our supersonic transport program.

"Your friends in government will miss you. We all owe you a great debt of thanks."

In his letter of resignation to President Johnson, General McKee said:

"On July 1, 1968, I will have completed three years as Administrator—the most demanding three years of my long career.

"Also on July 1st, I will have completed more than 39 years of Government service, 35 of them in the military. I think the time has come for me to give more consideration to my family.

"The people in the Federal Aviation Administration are the hardest working and most dedicated group I have ever known and, as President, I know you are proud of the contribution they have made to the country."

Prominently displayed in General McKee's office is a quotation from Machiavelli which states:

"There is nothing more difficult to take in hand, more perilous to conduct, or more uncertain in its success than to take the lead in the introduction of a new order of things."

Taking the lead in the introduction of "new things" has been a day-by-day responsibility for the Administrator since he was sworn in by the President. The supersonic transport program is a dramatic example of this. When General McKee took office, competition for the airframe and engine contracts was still under way.

General McKee put together a 235-man SST-team from the FAA, Defense Department, NASA and the Civil Aeronautics Board to make recommendations to him. In addition, he conferred with the presidents of all the airlines that would fly the SST. Then he made his decision—the airframe contract

(Continued on page 7)

General McKee

General William F. McKee enjoys a rare moment of relaxation during his tenure as FAA Administrator. Gen. McKee retired from his position as chief of the agency on July 31.

Initial Flight Test On CAT III Completed

By David Hess

WASHINGTON—Agency pilots logged more than 500 successful landings during a month-long flight evaluation of a prototype automatic all weather landing system (AWLS) capable of putting an airplane on the runway under simulated zero-zero visibility.

With the AWLS, which was developed and installed by the Lockheed-Georgia Co. in one of its giant C-141 "Starlifter" jets for the joint FAA—U. S. Air Force program, the pilot's role is one of a monitor. All decisions in operating the controls, which keep the aircraft on course at the proper rate of descent and speed, are performed by small but complex sensitive computers, each about the size of a shoe box. The pilot, however, remains in command at all times and may override the automatic system at his discretion and either elect to land manually or execute a missed approach.

The flight tests at NAFEC marked the first attempt by agency pilots to evaluate an integrated AWLS under field conditions.

FAA will use the data accumulated during the C-141 flights, along with that from other programs, to write criteria for Category III landings—that is, landings when the ceiling is zero and runway visibility ranges from 700 feet down to zero.

Zero ceiling and visibility conditions were simulated in the Starlifter landings while the pilot was "under the hood"—that is, the pilot's forward visibility was blocked out by a shield covering the windshield.

Approximately half of these landings were made while the pilot sat in the cockpit acting as a monitor with his hands off the controls. The remainder were made manually with the pilot taking over from the computers at a point just before touchdown.

The program was conducted under a joint FAA-Air Force agreement initiated by Systems Research and Development Service, which provided technical assistance and progress planning. The equipment design derived from concepts developed by USAF's Systems Engineering Group of the Aeronautical Systems Division (ASD) and the program was managed by the C-

(Continued on page 7)

V/STOL Tests Run In NAFEC Simulation Lab

ATLANTIC CITY — Vertical- and short-takeoff and landing aircraft (V/STOL) can be controlled in air traffic more efficiently at high density airports by using a separate approach pattern and runway, a recent agency study shows.

The tests, made in an air traffic simulation lab at NAFEC, show that while V/STOL aircraft can be accommodated in the airport terminal area using present air traffic control procedures, controllers found it difficult to get desired spacing on final approach.

This difficulty is due to the great differences in final approach speeds between V/STOLs and conventional airplanes and also the variation in approach and landing speeds of different V/STOLs.

The tests were conducted to determine how air traffic control at high density airports would be affected by V/STOL aircraft and to learn what effects V/STOLs would have on other traffic.

Report Now Available

A technical report (NA 68-21) on the project, released recently, recommends that in planning future V/STOL ports separate from airports, consideration should be given to runway location and alignment in order that the traffic flow be compatible with that of the terminal area.

The project, conducted under the direction of Robert Conway, is part of an overall FAA program to study the future of V/STOL aircraft in short-haul transportation. Also assisting in the V/STOL simulation was Paul O'Brien and James Henderson.

Controllers Honored

At the New Hampshire State Capitol, Governor John King (second from right) awards an Eastern Region "We Point With Pride" plaque to four Boston Center controllers for emergency assistance to two F-101s recovering from a low-level intercept. They are (left to right): Robert Franks, Edward McCarthy, Roger Charest and Paul Maguire. A fifth controller, Edward Lohoski was unable to attend. All five participated in locating a crash site where the crew of one F-101 had bailed out and in directing the rescue action. They also assisted in radar vectoring the second F-101 to a safe landing.

Seven Hundred members of the DOT family in Alaska gathered in Anchorage's municipal auditorium to hear Secretary Boyd.

Boyd's 'Eyeview' Of Alaska

ANCHORAGE—"The next time I hear someone complain about driving hour after hour without leaving Texas," commented Secretary of Transportation Alan S. Boyd to the Alaska Press Club, "I will remind them that there's one state where you can get the same feeling in an airplane."

The Secretary speaks from first-hand experience after a four-day survey trip which started in Juneau, the State Capital, located in the southeast "panhandle," and extended as far north as Kotzebue, 30 miles north of the Arctic Circle. In-between were visits to Seward, Anchorage, Fairbanks, Nome and Kodiak for the Secretary and his party—which included Mrs. Boyd, Scheffer Lang, Federal Railroad Administrator, and Mrs. Lang, and other members of Boyd's staff.

A highlight of the Secretary's trip, as far as FAAers in Anchorage were concerned, was a meeting with DOT employees in the Municipal Auditorium. Discussing how "people and goods are compelled to conform to the (transportation) system as it is" in other parts of the United States, Boyd declared that "Our mandate, as we see it, is to change that around—to make the system conform to the needs of the people. In only one part of the nation do we find a different task, and only in Alaska do we have an opportunity to shape a transportation system systematically; to coordinate its growth with the growth of the region."

On his visit to Fairbanks, Secretary Boyd visited the new flight service station which will be ready for commissioning soon. Darrell Nelson, Area Manager at Fairbanks, was part of a "red carpet" committee of city and military officials who welcomed the Secretary and his party.

At Nome and Kotzebue, the Secretary had warm greetings and praise for the FAAers and their families who serve aviation in these remote areas.

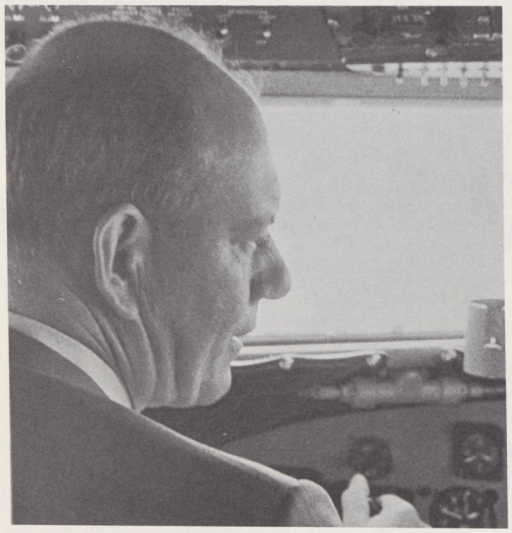
At luncheons and visits to facilities, Secretary Boyd made every effort to meet as many of our people as time permitted.

◄ Carl Melton, Area Manager at Nome, was among those who greeted Secretary Boyd and his party upon their arrival at Kotzebue, 30 miles north of the Arctic Circle, during the Secretary's recent inspection tour of the 49th State.

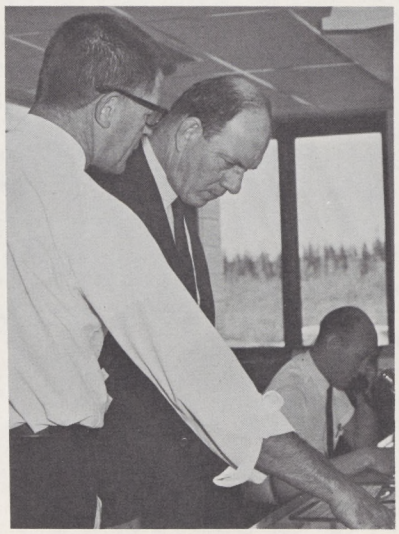
◄ Mrs. Sharon Olin rubs noses with Department of Transportation Secretary Alan S. Boyd in traditional greeting shortly after his arrival at Fairbanks International Airport.

► Mrs. Alan S. Boyd accepts souvenir from Fairbanks Area Manager Darrell Nelson. This took place during a dinner held on the Riverboat "Nenana," which is in permanent dry dock at Alaskaland, site of the 1968 Alaska Centennial celebration.

Mrs. Allan S. Boyd listens attentively to Alaskan Region Director Lyle K. Brown as he explains family services for employees in the region.



A former Troop Carrier Command Pilot, Alan S. Boyd, Secretary of Transportation, looked over the pilot seat of the N5—the Alaskan Region's DC-3—on his travels through the 49th State.



Robert Bloom, ATCS, shows communications equipment at the new Fairbanks FSS to Secetary Boyd. The FSS will be officially commissioned in the near future.

Jack Jefford (left) Alaskan Region chief pilot, poses with Ernest Gruening (center), U. S. Senator from Alaska, and Secretary Boyd, at Kodiak. This was the final stop on the Secretary's itinerary.

Chinese Officials Get Briefing From Agency

LOS ANGELES—The Republic of China wants its top accounting executives to benefit from the latest in American methods and procedures and so has sent them to the U.S. to absorb information. One of 22 places chosen for the group's itinerary was the FAA Western Region.

Early in June, eight key officials —representing top management in Chinese governmental corporations —spent six weeks in the U.S. They were briefed by FAA and five other federal agencies as well as a number of private corporations.

Besides FAA, the Chinese group met with officials from the Bureau of Reclamation in Las Vegas, the Tennessee Valley Authority in Knoxville and the Bureau of the Budget, General Accounting Office, and Agency for International Development in Washington.

In the Western Region meeting arranged by Garrison Costar, International Liaison Officer, the group was briefed by Glenn Bullock, Supervisory Budget Analyst; Theodore Anselmo, Chief, Accounting Operations Branch and Leonard Williams, Supervisory Auditor.

Accompanying the team was Walter P. Coppinger, project manager for the State Department's Agency for International Development, Office of International Training.

Represented in the Chinese delegation were accounting chiefs in China's executive directorate, Ministry of Communications, Petroleum Coporation, Fertilizer Corporation, Aluminum Corporation, Harbor Bureau and Civil Aeronautics Administration.

"There was a lively exchange of information at our Western Region meeting," Costar said. "All members of the Chinese group spoke English fluently and asked many questions concerning FAA financial and accounting operations. They were particularly interested in automatic data processing and other advances in automation as applied to financial management."

The Republic of China's government is situated on the island of Taiwan (Formosa), 110 miles east of the mainland of China.

East Meets West

Eight top accounting executives of the Republic of China are seen at a briefing by Western Region Budget, Accounting and Auditing supervisors. FAA officials at head of table are (from left): Glenn Bullock, Supervisory Budget Analyst; Garrison Costar, International Liaison Officer; Theodore Anselmo, Chief, Accounting Operations Branch and Leonard Williams, Supervisory Auditor.

Agency Participates In Boise Government—Business Day

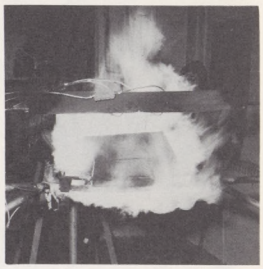
BOISE, IDAHO—A community effort to bring government and business leaders together to improve understanding and community betterment has gotten enthusiastic FAA participation and cooperation here.

Melvin Couch, Chief of the Boise Tower and FAA's local coordinator in this section of Idaho, represented FAA at the discussions.

Among leaders present was Idaho's Governor Robert E. Smylie, who spoke on the importance of such a meeting and outlined the variety of problems facing communities, states, and the nation in the next 20 years.

"I gained a much better understanding of the business role in our society," Couch said. "In a subsequent meeting, businessmen will be given greater insight into the operation of government agencies operating in Idaho."

Business representatives at the meeting included top area business executives.



Hot Bath

A cockpit voice recorder is bathed in flames of 2,000 degrees Farenheit at NAFEC in tests aimed at improving fire integrity. While the outside casing and electronic components melt away, the cartridge containing the tape must protect the tape so that it is playable. Investigators use voice and flight data recorders to recreate accident conditions.

FSSer Runs Weather 'Road Show'

By Don Byers

INDIANAPOLIS — Joe Cirillo, an FSS specialist here, has been running a one-man program for the past 18 months to help pilots get more out of their weather briefings.

"What we really need," says Cirillo, "is a way to establish an orderly *interchange* of information between the pilot and the briefer, to provide complete but concise weather briefings so that we can advise more pilots in less time. This isn't always easy."

Often, he points out, much telephone time is wasted on irrelevant detail.

Specialist Cirillo's answer is the "road show." In his free time, he gets out to "pilot country," and personally instructs pilots in what they can do to make the most of their briefing. Assisted by fellow employee Farrel Smith, he enables the pilots to better understand the basics of surface analysis, weather depiction, radar summary charts and sample weather "ticker" copy.

Distributes Briefing Aids

He also provides pilots with copies of "The Pilot's Weather Plan," an eight-page booklet he wrote and had printed at his own expense. In the publication is a sample of Specialist Cirillo's pilot weather briefing aid. On one side is a blank U. S. map, on which the pilot can fill in information on front location, type and general enroute weather. The reverse side contains spaces for detailed written weather information. Included is a list of the 50 most commonly used weather symbols.

Freed of the need to store all weather details in his head, the pilot can concentrate on the general situation during his briefing and he can carry the detailed chart into the cockpit with him. A secondary benefit is the fact that the completed chart is evidence that each pilot has complied with requirements of FAR 91.5.

If you think that area pilots see the Cirillo plan simply as more workload, you're wrong. Aware of the benefits, they have been cooperating fully, and have not been bashful in complementing Cirillo's work.

"It's the best plan for weather briefing yet," says one triple-rated pilot. Another thinks it "should be required as student training, along with a visit to an FSS."

One commercial-rated flight instructor, who flies for business and pleasure, thinks the plan is "a breakthrough in a tremendous task of enhancing flying with safety."

Other Indianapolis specialists are happy, too. "We can tell when it's a local pilot calling now," one notes, "and we're glad to have a growing number who know what we can and can't do for them at the other end of the phone."

Joe Cirillo's plan has been approved for use in his area, and there's a chance that his system will provide the foundation for a national plan carried out with full FAA support. Meantime, Cirillo is packing the crowds into his homegrown "road show."

Pilots' Pal

Joe Cirillo, FSS specialist at Indianapolis, is seen on his regular job (left) briefing a pilot who has contacted him by radio. At right, he faces one of many pilot audiences in a hastily set-up extra-curricular "road show," during which he voluntarily instructs area aviators on how to get the most out of their FSS briefings.

Facts, Figures For West Outlined

The Western Region has a population of 918,340 or 30 per cent of the geography in the U.S.A.

Seventeen per cent of the total U.S. population lives in the Western Region.

Western Region accounts for 17 per cent of the passenger miles flown in a year.

Western Region has 16 per cent of all FAA employees.

One-sixth of the nation's population lives within the FAA's Western Region.

One-eighth of the FAA's operation budget is used by the Western Region.

Confab

As part of the Administrator's employee communications program, Area and Regional officials continually meet with local coordinators and facility chiefs to discuss problems, issues and opportunities. At Dothan, Ala., the group included (left to right): Edward Marshman, AT representative at nearby Ft. Rucker; Tom Dillard, Chief, Air Traffic Division in the Memphis Area Office; William Langford, Chief, Airways Facility Sector; Harold Little, Assistant Area Manager in Memphis; Henry Dale, Chief, Flight Service Station; and Paul Scott, Airport Traffic Control Tower.

HORIZONS

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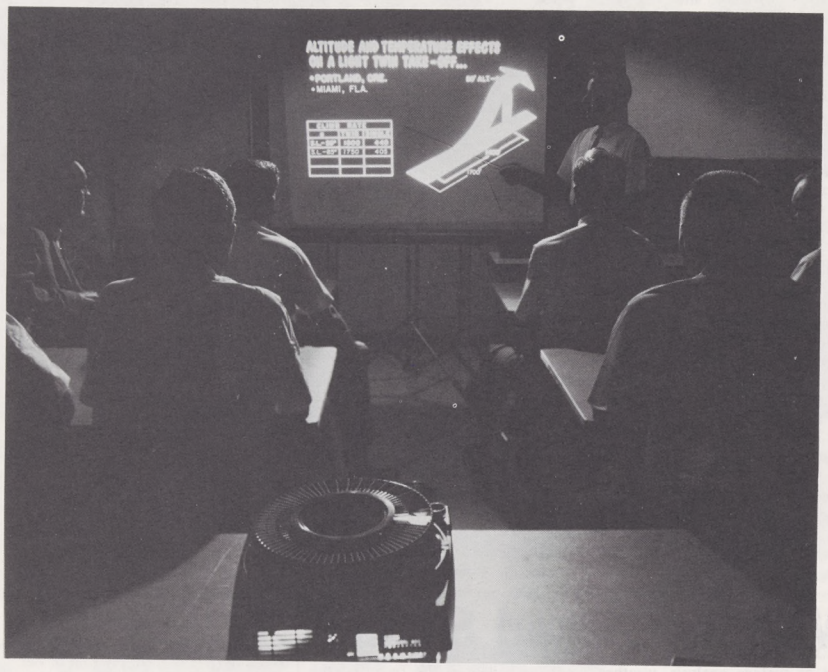
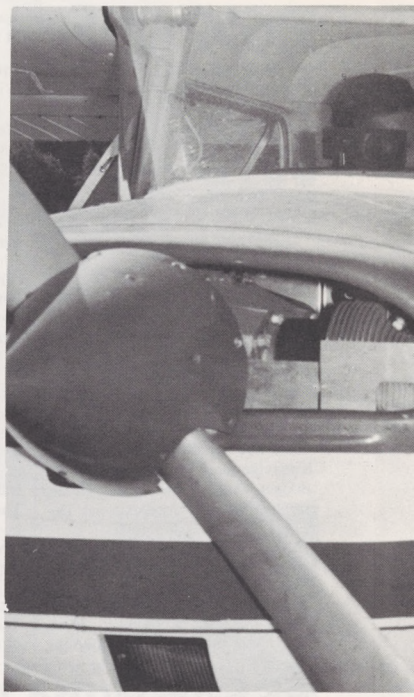


Safety instruction is brought to pilots as Chet Davidson, Central Region Accident Prevention Coordinator, instructs a group on the effects of altitude and temperature takeoff performance on a light twin.



Introducing Our New Accident Preventers

The Friendly Persuaders

By Frank J. Clifford

On their way to a pilot safety seminar to explain FAA's n vention program are safety experts (left to right): Chet E Prevention Coordinator; L. J. Cox, Accident Prevention S Lester J. Cooling, Supervising Inspector, Kansas City GADO

He won't be wearing a white hat, but you will be able to tell right away that he is a good guy. He represents the modern approach to flying safety—the "friendly persuasion" method of accident prevention.

He is available for pilot seminars, instructor clinics, check rides, as well as coffee-and-conversation about flying. He is well-versed on the latest FAA regulations and procedures, and he is an accomplished pilot in his own right. He is one of some 30 newly created accident prevention specialists assigned to FAA's General Aviation District Offices, under Project 85.

Project 85 is being developed by Flight Standards Service as part of an effort to achieve a major breakthrough in accident prevention. Accident records for a 15-year period, 1951 to 1966, show a gradual decline in the accident rate per 100,000 hours flown, both for fatal accidents and non-fatal accidents.

In 1961, the overall accident rate per 100,000 hours of flight time was 45.2 and the fatal accident rate was 5.2. In 1966, according to figures recently released by the National Transportation Safety Board, the overall accident rate was 27.17 and the fatal accident rate was 2.73.

General Aviation Grows

Nevertheless, total accidents, injuries and fatalities in 1966 reached an all-time high, because of the greatly increased number of persons and aircraft now active in general aviation. There were 5,712 accidents in 1966, with 1,151 persons killed.

The goal of Project 85 is to reduce significantly the accident figures. Originally named for the 85 FAA General Aviation District Offices (the number has now been reduced to 81), this project is designed to provide the GADOs with an official whose primary job is not the inspection of aircraft or airmen to see that they are in compliance with FAA regulations, but a man who will spend 95 per cent of his time getting to know the pilots in his district, their flying habits, and their flying problems, if any.

Project 85 recognizes the fact that most professional instructors are too busy with instructional duties to sit down and chat leisurely with the pilot who may have some secret doubts about his own proficiency in some aspects of flight. Some pilots, who appear to be extremely competent when the instructor is in the right-hand seat, experience a great deal of uneasiness and uncertainty when they are in the cockpit alone. This lack of confidence can easily lead to panic on the part of the pilot and to accidents of a more or less serious nature unless someone is in a position to build up the pilot's confidence in himself.

The concept of the accident prevention specialist as a counselor was intended to fill this need.

Began July 1

Project 85 began officially on July 1 with the assignment of 18 accident prevention specialists to the Central Region, and 13 to the Southwest Region. A two-year evaluation of the program in these two regions will determine the future of the project. If satisfactory progress is made, all regions will be supplied with the specialists in two years or less.

The original accident prevention specialists were selected from several hundred applicants, all seasoned GADO veterans. A screening process singled out those applicants who had the deepest interest and personal conviction with regard to aviation safety. Above all, they had to have a positive attitude toward the value of accident prevention.

Chosen applicants also had to have extensive general aviation backgrounds acquired either as a pilot, licensed instructor, or in business flying operations. And they needed an expert understanding of FAA's general aviation organization and the function of GADO inspectors, supervisors and other personnel.

They had to be able to communicate well, to speak easily and effectively to groups or individuals, to point out errors without scolding and to teach without talking down to pilots. They also had to be able to write clearly and to the point.

◄ Dick Giffen, Fort Worth GADO accident prevention specialist, gets the word to the neophytes as the program gets underway. Here he chats with a student pilot and instructor as they prepare to takeoff.

Chet Davidson (right), Central Region Accident Prevention Coordinator, uses his hand to demonstrate correct chandelle entry technique attitude to a young pilot.

ain FAA's new general aviation accident pre-
ght): Chet Davidson, Central Region Accident
revention Specialist, Kansas City GADO; and
s City GADO.

William Berkebile (left), Regional Accident Prevention Coordinator, goes over statistics on general aviation accidents with Regional Director Henry L. Newman as accident prevention program starts in Southwest Region.

Finally, they had to have a broad understanding of the primary causes of aviation accidents—involving human, mechanical and environmental factors.

Specialists Well Trained

Because of their GADO background and experience, most of the accident prevention specialists chosen had already received formal training in aircraft accident investigation. A profile of the successful applicant shows the average man to be about 40, married, with 20 years of experience in aviation. He has an air transport rating and is multi-engine qualified. He has had extensive experience as a flight instructor and the chances are 50-50 that he is jet-rated. He probably has some background either as an air taxi operator or charter pilot or in fixed base operations. He may also be qualified as a helicopter or a glider pilot. He may have done some crop dusting. He has logged about 8,000 flying hours.

Despite the impressive background of the successful applicant, a training course is planned at FAA's Aeronautical Center in Oklahoma City to further prepare the specialist for his post. The first portion of the course will cover flying techniques. The second segment will be a salesmanship course in accident prevention. This course will feature the psychology of human relations—on the best means of stimulating local participation in aviation accident prevention programs. The specialists also will be taught how to look for patterns of accidents in their areas and for indications of pilot uncertainty over procedures and maneuvers that are a necessary part of their flying program.

Each accident prevention specialist will be responsible for all accidents occurring to pilots from his district, regardless of where the accident actually takes place. Similarly, he will not be responsible for accidents which happen in his area to pilots based elsewhere. The reasoning behind this localization of responsibility is that the specialist can be most helpful to pilots if he is on the alert to seek certain habits of flying or conditions of flight which are peculiar to his district which could be playing a part in accident causes.

Evaluations Bi-Annually

An evaluation every six months will indicate which districts of the two regions being initially supplied with accident prevention officers are showing the greatest benefit and which the least. Since the future of the whole Project 85 hangs in the balance, the original 31 specialists will be going all out to bring about a drastic reduction in accidents in their respective districts.

Although it may sound like little more than "coffee and sympathy," the services of an accident prevention specialist may turn out to be, in the long run, a pilot's best insurance for staying out of the accident statistics column.

Accident Prevention Specialists for the Southwest Region GADOs under William Berkebile, SW Region Specialist, are: Warren McCoy, Albuquerque, N. M.; Douglas Throop, Dallas; William Sullins, El Paso; Dick Giffen, Fort Worth; Ernest Dodds, Houston; Tommy Hancock, Little Rock, Ark.; Lawrence Musser, Lubbock, Tex.; Huard Norton, New Orleans; James Grant, Oklahoma City; Erik Andreson, San Antonio; Clarke Hall, Shreveport, La.; and Albert Pospisil, Tulsa.

For the Central Region, under Chet Davidson are: Clyde Martineau, Des Moines; L. J. Cox, Kansas City, Kans.; Alfred Milana, Lincoln, Neb.; Lawrence B. Sims, St. Louis, Mo.; John Hunt, Chicago; Verdon Kleimenhagen, Detroit; Willard Pederson, Indianapolis, Ind.; John Hodge, South Bend, Ind.; Roger Riggins, Billings, Mont.; Robert Broadbent, Fargo, N. Dak.; Lauren Basham, Helena, Mont.; Jerald Mertens, Milwaukee; Victor Frier, Jr., Rapid City, S. Dak.; Jack Parrish, Grand Rapids, Mich.; Lee Ruebush, Springfield, Ill.; H. W. Demmerly, Minneapolis. Still unassigned is Wichita, Kans.

Wake Island Rebuilding After Typhoon 'Sarah'

WAKE ISLAND—A program to permanently restore FAA facilities here to pre-typhoon condition is progressing in a "satisfactory manner," according to Phillip M. Swatek, Pacific Region Director.

In September 1967, a major tropical storm dubbed "Typhoon Sarah" destroyed or damaged nearly every facility on Wake Island. Operations were quickly restored, but on a "patch-up" basis. Portable units, including a tower from Alaska, a VOR from the Southwest Region and a TACAN from Clark Air Base in the Philippines were airlifted to Wake and put into operation. The ILS and high-powered homer beacon were returned to temporary service.

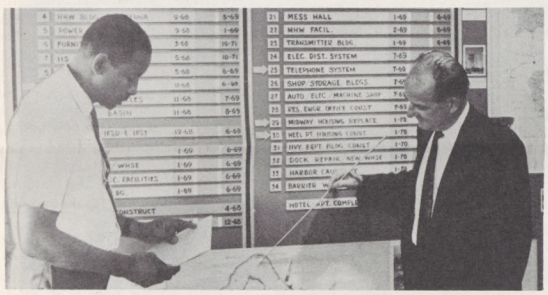
The Wake tower, knocked out of commission when 150-mile winds shattered the cab's plate glass windows, has been restored and recommissioned. Regional engineers are now devising ways to protect the tower cab glass from future high winds of typhoon velocity. The VORTAC was re-established this month and the high-powered homer will be rebuilt with flat-top antenna on wooden poles, guarding against future storms.

Temporary repairs were made to family quarters, permitting dependents to return to the island. In many instances, the temporary repairs left occupants in camper status. Permanent restoration has begun and tenants are living with friends or in temporary quarters until their houses are completed.

The total job of permanent reconstruction and restoration is estimated to cost $4.5 million and will not be completely finished until sometime in 1971.

A Wake Island Steering Committee, headed by Swatek, meets weekly to decide on priority changes and to discuss actions necessary to keep the construction work force at Wake supplied with all they need to complete the job at that remote location.

Two portable project status boards are used by the Steering Committee at regional headquarters in Honolulu. The boards show projects, priorities, operational status and expected completion dates. Colors are used to show pending, going, and completed projects. The project chart information can easily be shifted during Steering Committee meetings to immediately reflect decisions, including changes of priority. Changes are brought into focus through the use of color-coded arrows.



Progress Chart

The Wake Island rehabilitation progress chart is shown being updated by LeRoy Henry, Management Analyst (left), and Robert Williams, Chief of Plans and Programs Branch (project coordinator). Permanent restoration work at Wake is progressing satisfactorily.

Rulings On Temporary Promotions Explained

WASHINGTON—After careful review of comments submitted by agency personnel directors and officials of employee and veterans organizations, the Civil Service Commission has approved a major change in the procedure for returning an employee to his regular job after he has served in a higher grade under a temporary promotion.

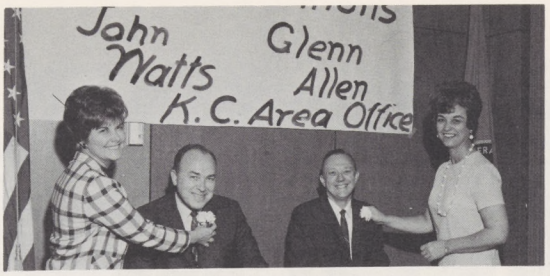
Temporary promotions may now be terminated without recourse to adverse action procedures when the temporary need has been met.

The change is expected to stimulate agency use of temporary promotions instead of detailing an employee to a higher grade position without increasing his pay. When a temporarily promoted employee was restored to his regular job, previous procedures were the same as if he had not performed well and was being demoted for cause. This encouraged agencies to use details rather than temporary promotions.

Under the new procedures, an employee promoted temporarily to a higher grade job will be told how long he is expected to serve in the higher grade job. The circumstances limiting him to a temporary promotion will be explained. He will be told that his regular job will be waiting for him when he is no longer needed in the higher grade job. While the Commission will permit the temporary promotion instead of a detail to satisfy temporary needs, the requirement of eligibility for a promotion under the Whitten Amendment must be satisfied.

The employee serving temporarily in a higher grade will be fully entitled to retirement coverage, life and health insurance, leave, within-grade salary increases, job protection, training, and consideration for permanent promotion. His status and tenure will not be affected.

The new procedures will become effective September 1. Agency guidelines should be available in operating personnel offices soon.



Real Service

"Federal Employee of the Year" award winners John Ross Watts, ATC Specialist, Kansas City Area Office, and Glenn Allen, Chief, Kansas City AFS, get preferred treatment from Marjorie Hall, secretary to the Area Manager, and Jean Gale, secretary, Airports Division, at victory celebration honoring the two winners.

Aviation Medical Examiners Meet In Oklahoma City

OKLAHOMA CITY—The doctors who must put the medical stamp of approval on the nation's civil pilots met the Aeronautical Center recently for a three-day session on the latest techniques in pilot physical examination.

Of the 121 physicians attending, 65 are pilots and 106 have had accident investigation training and also have taken part in the human factors investigation of fatal aircraft accidents.

During their sessions at the FAA Aeronautical Center they heard discussions on such subjects as: cardiovascular diseases, psychiatric screening of potential and qualified pilots, disorientation of the pilot during flight through "flicker vertigo" and head movement, drugs and drinking and problems encountered by the older pilot.

The aviation medical examiners, for the most part, also had sessions in the Civil Aeromedical Institute's altitude chamber.

Highlights of the three-day session were: Dr. Audie Davis, Chief of Aeromedical Certification, said the 'Superman' theory is now obsolete in pilot qualification. While standards for control are becoming more rigid in most fields of aviation, pilot physical qualifications are being relaxed. Dr. Davis noted that some amputees and some heart attack victims who have recovered are now licensed pilots. There are 287 pilots now operating with Private and Commercial licenses who recovered from massive coronary attacks.

Dr. Harry Chovnick, Superintendent of Southeast Ohio Mental Health Clinic, Athens, O., told the examiners they must look for pathology in pilot applicants.

Mental State Important

"When you talk to a man about his physical condition, you also should ask about his emotional and mental state. Our problem is not to find the obvious psychopath, but the marginal case."

In the altitude chamber tests, the medical examiners got first hand contact with the condition of hypoxia (too little oxygen), hyperventilation (too much oxygen) and the problems of euphoria (a feeling of well-being and relaxation that leads to a blackout if oxygen is not acquired.)

The seminars are given to all aviation medical examiners at specified times to bring them up-to-date with the latest research and techniques.

Rogers Chairs Atlanta FEB

ATLANTA—James G. Rogers, Director of the FAA Southern Region, has been named Chairman of the Atlanta Federal Executive Board.

As FEB Chairman, Rogers will direct the activities of the Atlanta Board, comprised of heads of all Federal agencies in this area until next July. The Atlanta FEB is one of 15 located in the larger metropolitan areas throughout the United States. Federal Executive Boards were established to promote economy through efficient and improved administration of government, and to develop and improve lines of communication between federal, state and local governments.

The new FEB Chairman has served as Director of FAA's Southern Region since July 1965. As Regional Director, Rogers is responsible for all FAA air safety programs and activities in the seven southeastern states, the Caribbean, Canal Zone, Central and South America. Rogers, a native of St. Paul, Minn., and also a veteran rated pilot, has more than 26 years of continuous service with the federal government.

Hot Lines

Resembling acrobats, painters work high up on scaffolding to reach the superstructure to give the FAA transmitter building on Telfers Island, C.Z. its first complete facelifting since commissioning in 1962. Because all transmitters operate through an overhead grid network, carrying high-voltage RF power, close coordination was required between painters, technicians and Balboa IFSS personnel.

REPORTS and PAPERS

Slusher, Gerald R., "Metallurgical Evaluation of Aircraft Exhaust System Components Failed During Ground Test Program," Final Report No. NA-68-22 (DS-68-10), dated April 1968. Source: HQ-630.

Slusher, Gerald R., "Reciprocating Engine and Exhaust Vibration and Temperature Levels in General Aviation Aircraft," Final Report No. NA-68-27 (DS-68-8), dated June 1968. Source: HQ-630.

Marcy, John F., "Flaming and Self-Extinguishing Characteristics of Aircraft Cabin Interior Materials," Final Report No. NA-68-30 (DS-68-13), dated July 1968. Source: HQ-630.

Moody, Alton B., "National Plan for Navigation," Institute of Navigation, Monterey, California; June 20, 1968. Source: RD-52.

Herget, William F. and Offi, Domenick, L., "Investigation and Evaluation of ASR/ARSR Performance Monitor," Report No. NA-68-8 (RD-68-24) National Aviation Facilities Experimental Center, Atlantic City, N. J., April 1968. Source: HQ-438.

Barton, Thomas H. and Jefferson, Francis W., "Nimbus II VHF Multipath Investigations," Report No. NA-69-16 (RD-68-30), National Aviation Facilities Experimental Center, Atlantic City, N. J., May 1968. Source: HQ-438.

Long Beach Tower Chief Is Honored

LONG BEACH—Stan Dilatush, Chief of the Long Beach Tower, has been named chairman of the Long Beach Chamber of Commerce Aviation Industries Committee.

In making the appointment, the Chamber's president, John L. Barrett, commented: "Your leadership will be a great asset to the Chamber in developing our community."

Direct Line!

This is your direct line to the top. Your questions will get answers! Employees are encouraged to discuss questions with their supervisor or local P&T office. However, if this is not convenient, questions addressed to Joseph H. Tippets, PT-1, FAA, 800 Independence Ave., S.W., Washington, D.C. 20590, will be answered. All questions should be signed, and concern only personnel and training programs, policies and procedures. What's your question?

Question: Shouldn't one be notified in less than four weeks' time whether a suggestion is either evaluated or rejected: If evaluations take more than a month, should not the suggester be notified at intervals as to what progress is being made?

Answer: The Recognition and Awards Coordinator who currently has the suggestion is responsible for providing a status report to the local R&A Coordinator, and it is essential that the local Coordinator follow up on the status of suggestions. In all cases, the suggester should be kept informed of progress. However, status reports are not intended to relay information regarding the acceptance or rejection of an idea; their only function is to let the originator know that the idea is still being considered. Watch for directives coming out soon which will emphasize speedy evaluation of suggestions.

Question: Position A is that of Electronics Technician, GS-856-11. Position B is that of Relief Electronics Technician, GS-856-11. The incumbents of these positions are equally qualified and certified. Can the Sector Chief switch the incumbents between the two positions without the approval of both technicians?

Answer: If there is no significant difference between two positions, the supervisor can reassign the incumbents. He may also, for the good of the service or for an employee's own development, detail the employees in such a manner.

Question: I would appreciate it if you can advise whether a Federal employee regularly scheduled to work various shifts, and regularly scheduled to work on Sundays, when ordered to attend a military camp as a member of the Reserve forces, is entitled to the 25% premium pay he loses by not being present for work on Sunday. The regulations state that an employee shall be given the night differential premium while on duty but they do not state anything about Sunday premium pay.

Answer: An employee ordered to active military duty as a member of the Reserve forces is entitled to leave without loss of pay or time for each day, not in excess of 15 days in a calendar year. Therefore, the employee you describe would receive any premium pay he would have received had he worked his regularly scheduled tour of duty, including Sunday premium pay.

Question: Under the flight familiarization programs in which FAA controllers ride the jump-seat of air carrier aircraft for training purposes, they often participate in such training on scheduled duty days including night shifts, Sunday shifts and shifts in lieu of holidays. In a definitive sense we are traveling. However, unlike travel status for change of duty assignment, we are performing a scheduled duty shift of training and are normally credited with such duty on FAA Form 2730-1 for those hours actually spent in training. Is night differential, Sunday premium pay, and holiday pay authorized in such cases?

Answer: Familiarization flights are considered as a form of on-the-job training. The employees receives the compensation he would normally receive for the performance of duty during his scheduled tour of duty. This would include overtime, Sunday or night pay where the employee's scheduled tour of duty includes night or Sunday shifts or regularly scheduled overtime hours. Further, an employee on such familiarization would be entitled to holiday pay for a holiday within his basic 40-hour tour of duty. Familiarization flights outside of the regularly scheduled workweek are not compensable by either premium or straight-time pay. This subject is covered in Handbook PT P 3550.11, paragraph 27.

Question: I am employed as a clerk-typist in the YOC Program. I would like to go to a junior college when I graduate. Is there any source of Federal aid or scholarships offered by the Federal Government for those who do not have enough funds to go to college?

Answer: Congratulations on your constructive approach for furthering your education. Yes, Federal aid is available for educational training to qualified candidates through the Department of Health, Education, and Welfare (HEW). Persons interested in information on these programs should contact their local HEW Office or write to the U.S. Office of Education, Bureau of Higher Education Division, Student Financial Aid, Washington, D. C. 20202.

Category III AWLS Flight Tested

(Continued from page 1)

141 Systems Program Office at Wright-Patterson AFB, Ohio.

In the first phase of the FAA-Air Force AWLS program, the C-141 was certified by the agency for Category II approaches and automatic landings in October 1967. The Air Force is now in the process of installing the CAT II and automatic landing capability in its C-141 cargo and troop-carrying fleet.

Here are the minimum ceiling and runway visual range restrictions set for the various categories some years ago:

CAT I—200-foot ceiling and 2400-foot runway visual range.

CAT II—100-foot ceiling and 1200-foot runway visual range.

CAT IIIa—ceiling zero and 700-foot runway visual range.

CAT IIIb—ceiling zero and 150-foot runway visual range.

CAT IIIc—ceiling zero and runway visual range zero.

The second phase of the all weather landing program, which was concluded this month, was designed to test the primary equipment under CAT IIIb conditions. The Air Force and FAA are now preparing a joint plan to continue using the C-141 test airplane to further develop CAT III equipment while the airplane is based at Wright-Patterson AFB.

Use of AWLS equipment by the airlines and the U. S. Air Force Military Airlift Command will mean fewer schedule delays resulting from adverse weather conditions and a proportionate reduction of revenue losses because of canceled or late departures and arrivals.

Another big plus to AWLS is added safety. The AWLS equipment will ease the workload of the pilot landing in any weather, but particularly in bad weather when manual control of a large aircraft on approaches and landings is difficult.

Principal features of the CAT II equipment included an improved autopilot coupler, automatic throttles, a radar altimeter, a flare computer, a rotation go-around computer, new flight directors, and a monitor system called a test program and logic computer.

Major equipment additions for the CAT III system are a decrab and rollout steering computer plus a manual channel independent of the automatic system. The manual channel includes a second radar altimeter, an additional flare computer, different attitude director indicators and additional monitoring.

The recent flight tests climaxed more than six years of AWLS cooperative effort between FAA and USAF stemming from the original SRDS/ASD development program agreements.

Computer Predicts Plane Damage With Accuracy

(Continued from page 1)

Jaglowski recently completed his eighth and final test on a one-fifth scale model fuselage, catapulting it at a speed of 75 m.p.h. into an eight-degree slope, simulating a crash landing. Instrumentation inside the fuselage recorded various accelerations.

A final report on the project will be published this fall. The tests are part of an overall FAA program to improve the crash-worthiness of airplane fuselages and the survivability of passengers and crew.

Next step in the technical program, according to Jaglowski, is to put into the computer program the data obtained in 1963 from a full-scale crash test of a Constellation airplane at Phoenix, Ariz. It will substantiate the accuracy and efficiency of the computer program, the engineer said. Work will begin later this year and is scheduled to be completed by mid-1969.

Rough Landing

At 75 m.p.h., a fuselage model at NAFEC slams onto an eight-degree slope, simulating the crash landing of an airplane. After impact it continues up one side of the slope and down the other before stopping. Information obtained will be used to improve plane design.

General Aviation Conclave

A three-day Flight Standards Division Conference in the Western Region represents the first time that all General Aviation Supervising Inspectors attended the same meeting of regional, area and field chiefs. Seated at center is Arvin O. Basnight, Regional Director. To his left is Frank Allen, Chief of the General Aviation Branch in the Region and to his right is W. R. Elder, Operations Specialist, General Aviation Branch.

Test Plane

Pilots at NAFEC have completed flight testing of the C-141 all weather landing system under simulated Category III conditions. More than 300 landings were made with the pilot "under the hood," as it was landed manually or by computers.

McKee Retires

(Continued from page 1)

to Boeing and the engine contract to General Electric — a decision which has been praised by aeronautical experts.

Although the SST program is a massive undertaking, General McKee never considered it his major responsibility. When President Johnson swore him into office, he emphasized to the General that his first and most important responsibility was the safety of those who fly.

General McKee never forgot this Presidential counseling and in a speech to the Air Line Pilots Association last month he said, "We must understand that the growth and progress of civil aviation will always be accomplished consistent with safety, never at odds with it. This means we will not entertain any expansion of the air services under Federal control if the safety of the public would be compromised or jeopardized in any way. As I have pointed out many times, whoever sits in the Administrator's chair must think first and always of safety."

Jerry Hannifin, the knowledgeable aviation writer of *Time* magazine, believes that General McKee's efforts on behalf of safety will be the hallmark of his career as FAA Administrator. When the *Time* writer was informed of the General's resignation, he said, "We are going to miss him. He stood up for the public interest, spoke for the guy who buys the tickets and has done one heck of a good job."

General McKee refused to single out any actions of his administration of which he was particularly proud. But others are doing it for him.

Evert Clark, formerly of the *New York Times* and now with *Newsweek* magazine, believes that McKee's constant emphasis on the importance of aviation to the nation was one of his most important contributions to the industry.

"McKee was one of aviation's greatest spokesmen," Mr. Clark added, "and the industry will benefit greatly from the missionary work he did in congressional hearings, in speeches, in interviews he gave the press and in day-to-day conversations he had with leaders in both industry and government."

What will General McKee do now that he has retired?

"Well, after 39 years you get a touch tired," he told an interviewer recently, "so I expect to just rest for a couple of months. Then, after Mrs. McKee gets tired of my trying to run the house for her, I may take on something else. I assure you, however, it won't be a 24-hour-a-day, seven days a week job."

Secretaries Love 'Auto Basics'

By Diane Enos

WASHINGTON—Hairpins and cotter pins have achieved an alliance at a new course in auto mechanics offered the feminine contingent at FAA Headquarters.

The 10-lesson course, designed to familiarize the non-mechanical minded "fairer sex" with autos, was the brain-child of Al Sanell, past-president of the FA Club, now working in the Western Region.

Knowing that many women drivers understand nothing more about the machines which carry them from place-to-place than where the ignition key fits, Sanell and John Smith of Flight Standards decided to make instruction in automobile mechanics available to Headquarters secretaries.

Neither anticipated the response. More than 70 women indicated an interest in learning more about what makes automobiles tick.

Smith describes the course as "a basic study of the construction, assembly and operation of the modern American automobile." His lesson plans carry such titles as "Bodies and Associated Metal," "Electrical Wiring," "Carburetion and Fuel" and "Engine Parts and Operation."

The questions from the participants during the course sessions indicate the extent of comprehension and the real interest the women have in knowing the why's and how's of the cars they drive.

Students are taught that city driving may shorten the life of the brake system in automobiles. Usually, with the fast stops and starts which city driving requires, brakes need adjusting after 20,000 to 25,000 miles of use. However, the overhaul of wheel cylinders and the master cylinder probably would not be needed until the 35,000 or 40,000 mile stage.

They learn that a "noisy" engine may be "repaired" by something as simple as a change in the grade of gasoline used, if the noise is the "ping" caused by low grade fuel explosion. Or, hydraulic valve lifter noises can be sometimes silenced by the use of one of the many additives or concentrated detergents on the market.

Interest in the program is not confined solely to the FAA participants. One Detroit manufacturer became so interested in the project that he offered to supply the group with a cutaway working engine and automotive transmission.

Other manufacturers have responded with a wealth of illustrative material which make the seemingly incomprehensible world of the "what makes it go" become simple to see and understand.

Plans are to continue the instruction as long as there is interest. The present course will be finished in a few sessions, and another group will be started in the fall.

Technical Pointers

Headquarter's "lady mechanics" listen as John Smith explains some of the more technical aspects of the compression engine at one of his weekly automobile mechanics sessions. More than 70 women are involved in the course, which is held three days a week during lunch break.

A Quart Low

Carol Anderson, Information Services secretary, shows Nancy Koplinka and Bobby Howell that her boss needs more oil. One of the things she never expected to learn in her position at FAA was how to read a dipstick. This is just one of the things Carol has learned in the FA Club's Automobile Mechanics course.

Area 'Positive Thinkers' Discuss Maintenance

KANSAS CITY—The Area Plants and Structures Section here hosted a seminar recently for six employees of the Central Region and 41 area employees connected with the maintenance of airway facilities in the four-state area of Kansas, Missouri, Iowa and Nebraska. The program's theme was "Positive Thinking for Improved Maintenance."

The plants engineering Seminar was held to provide an opportunity to exchange ideas, to present problems and possible solutions and to discuss improved materials and practices.

In addition to presentations and discussion periods conducted by FAA personnel, the program included several representatives of industry who demonstrated improved trouble-shooting techniques on engine generators, coolant problems and treatment and vibration engineering and analysis.

The seminar stressed that it was not only important to recognize problems, but to diagnose them and work out possible solutions.

Seminar

Central Region and Kansas City Area personnel attend a recent Plants Engineering Seminar in Kansas City to discuss problems and possible solutions relating to facilities maintenance.

Summer Encampers

Flanking Lt. Col. Johnnie Boyd, commander at the recent Civil Air Patrol summer program at Sheppard AFB, Tex. are FAA employees from the Aeronautical Center in Oklahoma City. From left to right are: CAP Major John Kanost, Data Services Division; Boyd, and Air Force reservist Lt. Col. Durward Sorensen, Air Traffic Control Division.

Radio Waves Studied to Extend Automatic Communications Range

WASHINGTON—Extending the effective range of automatic ground-air data exchange via tropospheric propagation of very high frequency (VHF) transmissions beyond the radio horizon is the objective of new experiments underway by the Systems Research and Development Service and NAFEC.

Tropospheric scatter is the term used to describe the activity of radio waves when they no longer follow a direct "line of sight" beyond the radio horizon. This is caused by the scattering of energy back to earth from irregularities in the refractive index of the troposphere, that portion of the atmosphere roughly to about 30-60,000 feet. When enough communications system gain in transmission can be achieved, highly reliable point-to-point VHF and UHF signal reception is possible over distances considerably beyond "line of sight."

An interim report [No. NA-68-10 (RD-68-27), "An Exploratory Test of Data Transfer by VHF to Aircraft Over the Ocean in a Tropospheric Propagation Environment," June] published recently describes the exploratory phase of the new experimentation, consisting of tests with an experimental coastal transmission terminal at Avalon, N.J.

Short Series of Flight Tests

Two antennas—each with 16 co-linear dipoles in a vertical array—were used in a short series of exploratory flight tests to determine antenna orientation and coverage, identify other planning factors and to illustrate the kind of experimental information obtainable through over-ocean test operations.

In addition to the dual antenna installation, the experimental ground terminal included subsystems for message generation and control, modulation and transmission and reception of messages from the test aircraft specially equipped with appropriate airborne terminal equipment.

Results of the initial phase of the project indicate the value of further experimenation. The report concludes that performance of error-free digital data transfer is at least equal to that of good-quality voice reception at substantially the same distances when low-speed data modems are substituted for voice frequency modulation and detection. High-gain troposcatter voice communication is already in operational use in the Southeastern United States and between the West Coast and Hawaii.

The report recommends further testing to determine probable operational coverage, including addition of a complementary facility for reception and/or transmission at Bermuda to produce more complete coverage.

Further tests are currently being planned as a joint effort between FAA and Pan American World Airways to obtain additional exploratory data on medium speed air-ground digital transmissions for the same environment.