

FLY-BY



IN THIS ISSUE:

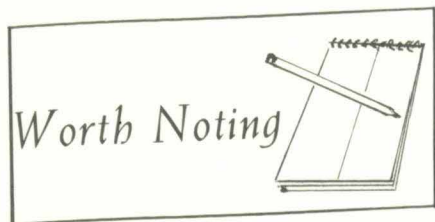
New Directives System

"Searchlight" Recommendations

APRIL 1962



OFFICIAL EMPLOYEE PUBLICATION OF THE FEDERAL AVIATION AGENCY



Worth Noting

Unemployment Insurance

The Federal Government provides its employees with valuable protections against loss of income. This month's column discusses another of these—unemployment insurance.

If he is separated from the Federal service because of reduction in force, or if his appointment terminates, an employee may be entitled to unemployment compensation while looking for another job. If the worker is discharged for misconduct, quits voluntarily without good cause, or refuses a suitable job without good cause, there is a period of disqualification during which unemployment compensation cannot be paid. This period varies from state to state.

Unemployment compensation is usually payable by the state in which the Federal employee has his last duty station. However, a claim for benefits may be filed in any local office of a state employment service. The employee should file his claim in the local office nearest his residence. The amount of the payments varies from state to state, but they are usually about one-half normal earnings, ranging up to \$55 a week in some states. The length of time they are payable varies also—from 16 to 39 weeks. Some states supplement these payments by allowances to dependents.

When leaving the Federal service, an employee is entitled to a lump-sum payment for the amount of annual leave he

has earned but has not used. Some employees save annual leave up to the legal maximum (30 days in most cases) so that they can use the lump-sum-payment as a sort of cushion in the event they leave the service.

Because of variations in unemployment insurance benefits among the states and the District of Columbia, it is important that when leaving the Federal service an employee promptly visit his local state employment service office. There he will learn all the details on unemployment insurance as they apply to his particular case.

ARTCC Reduction Slated By Agency

The number of air route traffic control centers within the 48 contiguous states will be reduced from 29 to 22 by July 1, 1964. The functions of the seven that will be phased out will be shifted to adjacent centers in a consolidation designed to reduce operating costs and improve efficiency in the air traffic control system. There will be no interruption to service provided those aircraft operating in the areas affected.

Centers to be phased out are Pittsburgh, Norfolk, Spokane, St. Louis, Phoenix, Detroit and El Paso.

In 1959, actions were started to transfer the Pittsburgh Center's area to Cleveland; Norfolk to Washington, D. C., and Spokane to Seattle. These consolidations are expected to be completed by April 1963.

The St. Louis Center area will be taken over by the Kansas City Center primarily, with smaller portions going to the Fort Worth, Memphis, and Indianapolis Centers. Most of the Phoenix Center area will be absorbed by the Albuquerque Center, with remaining sections transferred to Los Angeles and Denver. The Cleveland Center will take over the southern portion of the Detroit Center area with remaining sections transferred to Minneapolis and Chicago. These consolidations are expected to be completed by July 1, 1964.

The El Paso Center's control area will be divided and transferred to the Albuquerque, Fort Worth and San Antonio Centers. Target date for completion of this consolidation is July 1, 1964.

The timing of center area realignments is based mainly on construction

schedules for new air route traffic control center buildings and the installation and realignment of electronic systems such as radar and communications equipment.

In making these announcements, Administrator Halaby said these consolidations and changes can be accomplished without any personnel losing their positions who are willing to move. Due to the time period required for the change, personnel reductions will be absorbed by not filling vacancies and by transfers to other locations. The Agency needs all of the skilled employees in the system, Halaby said, but not at the locations listed.

The Administrator said. "Realignment of the center areas is directed toward the creation of an operational environment in which pilot and controller can jointly function with maximum efficiency to achieve a safe and expeditious flow of air traffic." He added, "It will particularly meet expanding requirements of jet aircraft whose operations depend on a quick exchange of information between pilot and controller and the availability of sufficient airspace for the pilot to maneuver in when responding to control instructions."

The phasing out of the seven ARTCCs and the consolidation of new center areas will result in an annual operating savings of more than \$3.5 million. The reduction in the number of centers will also greatly reduce the cost of adding automation to the system as fewer locations need be supplied with expensive computer and display equipment. These savings will amount to many millions over the next decade.



COVER—Take a pretty girl, surround her with azalea blossoms, add a lovely smile, and you have a recipe for a spring cover. Our model is FAAer, Miss Darlene Wells, RD-94. The place, Washington's Botanical Garden.

Who's Who and What's What In and Around the Agency

THERE IS an old saying that goes, "Never underestimate the power of a woman." It seems that some jet aircraft designers did just that. They designed today's jetliner to withstand tremendous stress and strain, but they overlooked one important thing—feminine fashions. The stiletto-type heels that fashion conscious ladies wear are playing hob with jet floor panels. Tests show that impact developed by 110 pounds of femininity teetering up a cabin aisle, may exceed 2500 pounds per square inch of spot load pressure. You ladies are denting the floor panels! . . . **RECENT RETIREMENTS** from the Agency included Miss Marguerite Greene, the first woman to be appointed to Chicago Midway Airport, and Ernest A. Johnson who started with Uncle Sam's Air Mail Service as a mechanic's helper back in 1921 . . . **OUT AT** the Aeronautical Center in Oklahoma City the Civil Aero-medical Research Institute building is scheduled for completion in mid-summer. The multi-million dollar building will house all research and administrative factors of CARI now housed on the University of Oklahoma campus at Norman, Okla. . . . **NAMED RECENTLY** as executive director of the Airways Engineering Society, was Jack Kemp, Dallas public relations and newspaperman . . . **GOOD LUCK** with the suggestion you're working on for submission in the Agency-wide Economy Campaign. What? You haven't even started? Tch, tch, tch. Remember, that \$1,000 is going to somebody. Why not you? . . . **THERE ARE** many ways you can use your spare time. FAAer Roger F. Besecker, a controller at the Allentown Bethlehem Easton Airport, has had 28 or 29 photographs accepted and printed by U. S. Army & Air Force Fighters 1916-61, plus, on the first page of that magazine, a word of gratitude to him. Other magazines that printed his photos are Air Pictorial, Royal Air Force Flying Review, World Aircraft Directory, and the American Aviation Historical Society Journal . . . **YOU MIGHT** not realize it, but the Civil Service Commission has your number—your Social Security number—if its last digit is a "5." They also have quite detailed information about you and your career record. Both of these facts result from the Commission's improved personnel statistics program which was recently established to learn more about Federal employees on a 10 percent sample basis . . . **THE LOBBY** of Washington headquarters has been brightened by the addition of two large color photographs showing the Air Route Surveillance Radar located on Blowhard Mountain near Cedar City, Utah . . . **TALK ABOUT** a story with a twist. We received a Christmas poem from Gene Griener of Miami Springs, Fla., too late for the December issue. We wrote telling Mr. Griener of this but suggested that, since it looked good to us, he try to get it published possibly in his home town so that others could enjoy it. This column is the last article written for the month. While writing it, we received a copy of the same poem. Only this time it had been put to music by his church organist, the title changed to "Eternal Life," it had been copyrighted, and we have our autographed copy. With it was another poem titled "Easter." Since Easter is in April and the April issue is filled, once again it means another letter to say that we received it too late. We seriously hope that Mr. Griener has as much luck with this poem as he did with the other.



KANSAS CITY, Kan., Aircraft and Avionics Maintenance Base recently was awarded Approved Repair Station Certificate No. 3044 with instrument and radio ratings. Shown at ceremony were (l. to r.): Clyde Hanft; Alvin Michaelis; Elinor Conover; Jerry Krehbiel; George Ireland; Bill Benjamin; and Max Mann, of the Central Region.



RECENT firefighting equipment received by Agency are these three 1500-gallon pumper fire trucks. One is on duty at Washington National. The other two at the new international airport at Chantilly, Virginia.



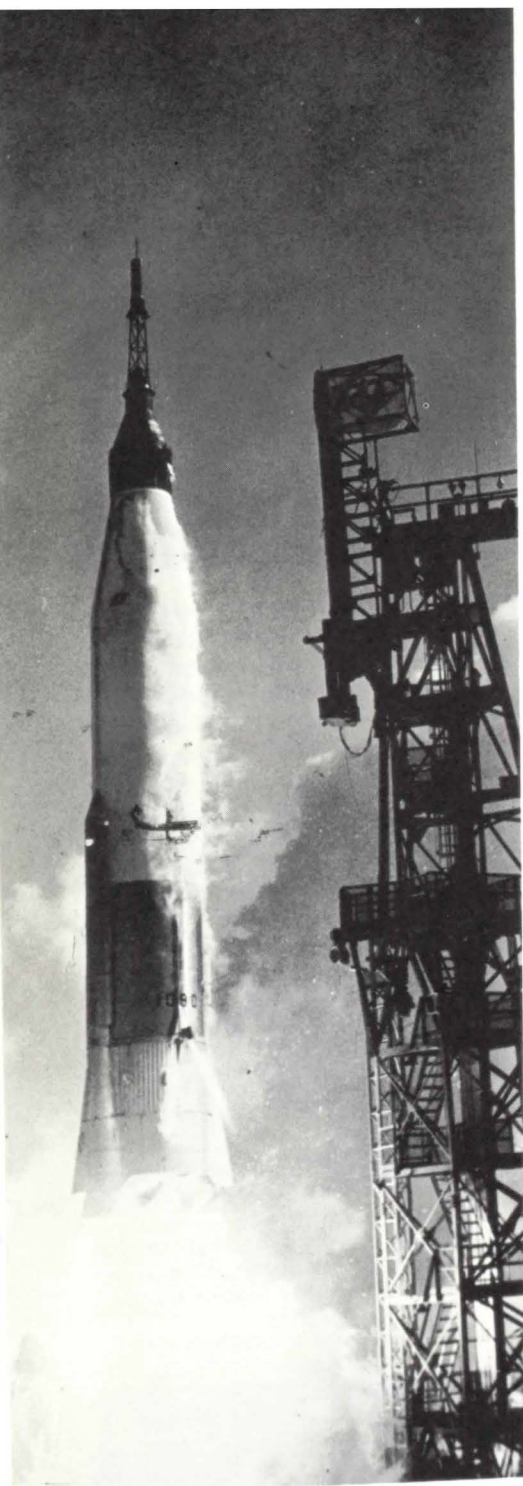
LATEST addition to U. S. passenger service is the trim Convair 990, which joined American Airlines' fleet in March. The new jet incorporates engineering advances proved out on the B-58 supersonic bomber. (Convair photo)

FLY-BY

Editor
Thomas J. Wholey

Associate Editor
Thomas Wright

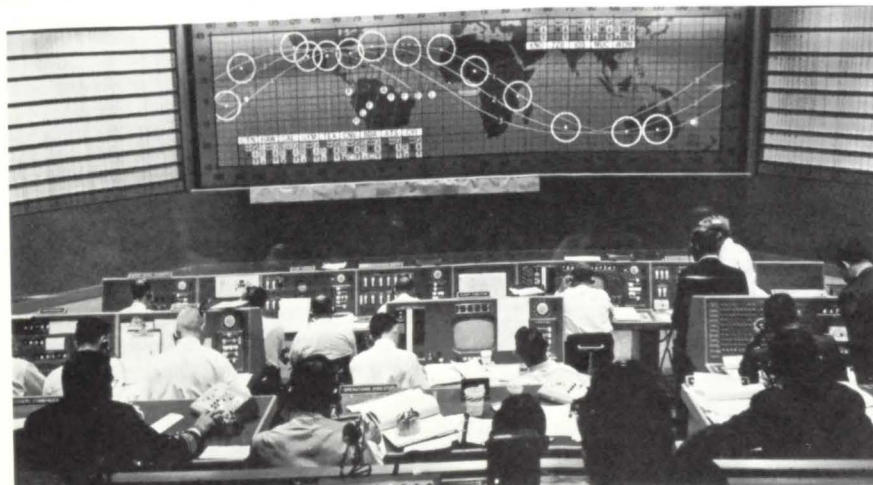
The official employee publication of the Federal Aviation Agency. Published monthly by the Policy Development Branch. Send all materials for publication to: Editor, Fly-By, PT-21, Federal Aviation Agency, Washington 25, D. C. Telephone WO 7-4988.



Mercury Shoot

AN ESTIMATED 30,000 Americans had a direct hand in Astronaut John Glenn, Jr.'s historic space flight, February 20, 1962. Among them were two Washington FAAers, James M. Ritchey, radar group project officer of the Air Traffic Service, and Leon C. Daugherty, supervisory electronics engineer with Aviation Facilities Service.

Whenever a Mercury space launch is scheduled by the National Aeronautics Space Administration, Ritchey and Daugherty man posts in the Air Force Systems Command communications center at Andrews AFB, Md. Their job is to see that no FAA facility inadvertently interferes with Project Mercury communications. They are authorized to verbally order radio or radar silence for any facility causing interference, should it be determined that it is for the best interest of all concerned. For example, during the November 29, 1961 shot, they requested two separate RAPCONs to maintain radio silence on one frequency for about six hours, and again on January 27, 1962, these same facilities were required to either shift operating frequency or maintain silence on one channel for four hours. During Glenn's flight they requested Honolulu Tower to shut down a communications channel to avoid possible interference. Both Ritchey and Daugherty have been commended by the Air Force for their work. Fotos reading clockwise are: (1) Mercury-Atlas 6, with Glenn aboard, leaves launch pad at Canaveral; (2) Closeup of Astronaut Glenn prior to launch; (3) Ritchey (right) and Daugherty at work; (4) FAAers Ritchey and Daugherty examine Freedom 7 space capsule on display at Smithsonian Air Museum; and (5) Project Mercury control room at Cape Canaveral during Glenn's flight. (NASA and FAA PHOTOS)



FLY-BY

New Directives System

A new and streamlined internal directives system designed to meet the FAA's space-age management needs, will become effective throughout the Agency this month.

The modernized system which has been operating on a pilot-study basis in the Southern Region, will be launched by Order OA P 1320.1. This initial order will transmit a new Directives System Handbook describing the new program in detail and will establish target dates for completing principal actions involved in converting existing directives to the new system.

Basically, the program provides a single, comprehensive and uniform system of directive issuance—with decentralized directive operations balanced by central technical assistance, monitoring and post audit.

The new program is the result of a joint survey conducted in the fall of 1960 by the National Archives and Records Service of the General Services Administration, and the FAA's Office of Management Services.

The survey's findings indicated the need for centralized review over the creation of FAA directives series and the classification, format and distribution of its directives. The Agency was not suffering from lack of written direction. On the contrary, it was burdened with too much.

New System

Under the new system Washington headquarters will issue directives that are national in scope or cover procedures which should be developed centrally to insure efficiency and uniformity. Regional headquarters and field offices will issue directives to cover regional or local variance and give needed direction in applying national issuances.

Hereafter, internal directives will consist of three kinds—orders, handbooks, and notices.

Orders and handbooks will cover permanent material and will be kept current by page revisions. Orders will normally be limited to less than 10 pages, while handbooks will be used for longer directives. All permanent material will

be covered by an order, either as part of an order, or as an attached handbook.

Notices will be used for temporary material and also to transmit page revisions to orders and handbooks.

All new or revised directives issued by Agency components after the program becomes effective must utilize the new system. Existing directives shall be maintained and canceled within the framework of the new system.

Benefits Of The System

Among other things, the new system is designed to:

- Improve adequacy and coverage of policy and procedure in directives.
- Reduce volume by consolidation and by eliminating duplication.
- Establish more selective distribution, and
- Provide users with regular check lists and indexes permitting them to find and file directives quickly, and to check currency and completeness of those on hand.

Each directive will be given an identification symbol made up of three parts consisting of an alphabetical symbol, a subject classification number, and a sequential number.

The alphabetical symbol identifies the issuing office.

The subject classification number will come from a single table of numbers published in the new handbook, which will be used by every issuing office.

For example, every issuance on leave will have the subject classification 3600. This number will be used by all offices writing on leave. The number not only identifies the subject but it allows the recipient to file all directives on a given subject together and use them as a unit.

The sequential number identifies one particular directive within a series given the same subject number.

Let us use PT 3600.1 as a hypothetical example.

The letters "PT" identify the issuing office as the Office of Personnel and Training. The numerals 3600.1, identify the subject and sequence.

Thus, PT 3600.1 would be the first directive on leave issued by OPT.

Conversion

The Office of Management Services is preparing a comprehensive listing of all national office directives presently in effect. This will be published in the near future. They also will assign a new identification number to these directives.

When this list is published, all holders of directives will renumber their directives in accordance with the new numbers. Following the initial renumbering, all directives will be referred to, canceled, or changed in terms of the new numbers.

Regional offices will publish similar lists covering their existing directives approximately one month after the national listing is published by Washington. After that all regional directives will be referred to by their new numbers.

All issuing offices have been ordered to review their existing directives and revise or cancel out-of-date items. Also, they will develop comprehensive plans to write new directives to fill obvious gaps.

The new order, however, states that no directive that adequately covers a subject, will be reprinted and redistributed solely to meet new system standards. All existing directives will remain in effect until reissued or specifically canceled.

Central library collections and review of directives will insure that managers are informed of directives that are developed in other locations and may be adapted to use in their own operations.

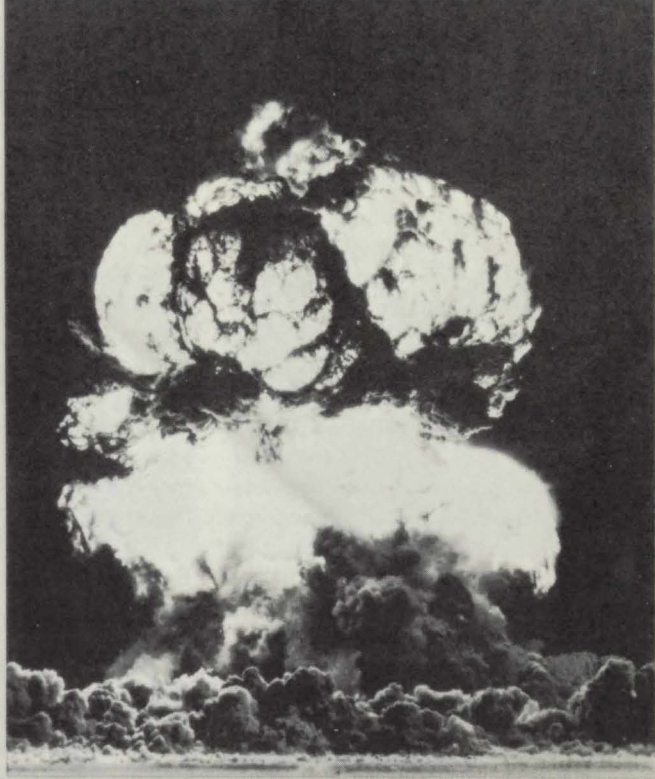
Management Services also is in the process of establishing a selective distribution system. This will make it possible to send only pertinent information to a given location. Recipients will therefore no longer have to dig through a vast amount of material to find that part which applies to them.

Looking Ahead

A change as complex as the new directives system will not be completed overnight. Training and orientation workshops for managers, writers and users will be given during the spring and summer both in Washington and the field. It is anticipated that it may be a year or more before the up-dating program is well on the way. But, the Agency now has a modernized system—one that will help carry out its mission more expeditiously and efficiently.

FALLOUT

More than 35 million copies of a small, but vital booklet titled "Fallout Protection," have been distributed nationally by the Government since the beginning of the year. This booklet presents some very blunt facts concerning nuclear attack. It also tells briefly what you can do to protect yourself and loved ones in the event such an attack should ever come to America. It states that the foreign and defense policies of our Government make such an attack highly unlikely, however, should one occur, certain preparations and knowledge on your part could mean the difference between life and death for you. The following excerpts are from the new booklet.



THE NEED for preparation—for civil defense—is likely to be with us for a long time, and we must suppress the temptation to reach out hastily for short-term solutions. There is no panacea for protection from nuclear attack. In a major attack upon our country, millions of people would be killed. There appears to be no practical program that would avoid large-scale loss of life. But an effective program of civil defense could save lives of millions who would not otherwise survive. Fallout shelters and related preparations, for example, could greatly reduce the number of casualties.

President Kennedy, speaking on July 25, 1961, put it this way: "In the event of attack, the lives of those families which are not hit in the nuclear blast and fire can still be saved if they can be warned to take shelter and if that shelter is available. We owe that kind of insurance to our families and to our country."

The President was talking about shelter from radioactive fallout. The blast, heat, and fire of a nuclear explosion are appallingly destructive. But radioactive fallout could spread over thousands of square miles, covering a much greater area than the area endangered by fire and blast. Fallout would be a potential killer of millions of unprotected persons but it also is a hazard that individuals

and communities can prepare for through reasonable programs and actions. A fallout shelter program is one of these.

There is much we can do together, and perhaps the first step is to take a clear look at nuclear warfare and what it could mean to the world as we know it today.

There is no escaping the fact that nuclear conflict would leave a tragic world. The areas of blast and fire would be scenes of havoc, devastation, and death. For the part of the country outside the immediate range of the explosions, it would be a time of extraordinary hardship—both for the Nation and for the individual. The effects of fallout radiation would be present in areas not decontaminated. Transportation and communication would be disrupted. The Nation would be prey to strange rumors and fears. But if effective precautions have been taken in advance, it need not be a time of despair.

These are somber subjects, and they presuppose a catastrophe which can be made very unlikely by wise and positive policies, pursued with imagination and faith. Still, realistic preparation for what might happen is far more useful than blindness, whether from fear or ignorance. A sane and sober person can assume that, whatever comes to pass, he would draw on his reserve of courage

and intelligence—and the unquenchable will to live—and begin to build again.

The experience would be terrible beyond imagination and description. But there is much that can be done to assure that it would not mean the end of the life of our Nation.

There are no total answers, no easy answers, no cheap answers to the question of protection from nuclear attack. But there are answers.

Some Basic Facts

A five-megaton nuclear burst at ground level would destroy most buildings two miles from the point of the explosion. Steel-frame buildings would be knocked sideways and great fires started.

The destruction five miles away would be less severe, but fires and early fallout could be a significant hazard.

At 10 miles, sturdy buildings would remain intact. At this distance fires probably would not be started by the fireball, but might be started by the blast wave which could rupture gas lines and short-circuit wires. Flying glass would present major danger, as would early fallout.

At 50 miles from the bomb burst, all buildings would remain standing. The fading blast wave would take about five minutes to arrive, but would still shatter

many windows. The greatest danger at this distance would be from early fallout which would begin arriving in some areas within three or four hours, depending upon weather conditions at the time.

Danger of Fire Storms

When nuclear or incendiary bombs strike a highly combustible city area, they can create a "fire storm"; the rising column of hot gases draws in surrounding cool air, producing inward blowing winds that confine the fire storm to the blast damage area. Primary fires would be a much greater hazard than fire storms. For maximum fire damage, a nuclear weapon must be detonated high in the air. This would eliminate most of the potential fallout hazard. The spread of fires from a nuclear attack would be limited in the same ways as are peacetime fires—by barriers such as open space, rivers, highways, by rainfall, and by varied distribution of burnable material.

Exposure To Radiation

During the average lifetime, every human being receives about 10 roentgens of nuclear radiation from natural sources. In addition, people are exposed to small amounts of radiation in dental and chest X-rays even from the luminous dials of wrist watches.

When large amounts of radiation are absorbed by the body in short periods of time, sickness and death may result. In general, the effects of radiation stay with people and accumulate over a period of time. Few people get sick who have been exposed to 100 roentgens or less. Exposure to more than 300 roentgens over a period of a few days will cause sickness in the form of nausea, and may cause death. And death is certain if a person receives an exposure of 1,000 roentgens over a period of a few days.

Young people might be injured more by nuclear radiation than older people. This is because young people are more apt to absorb radioactive elements into their bones and internal organs than are older people. Since young people are potential parents, they should be protected as much as possible following a nuclear attack to minimize the possible genetic effects on their descendants resulting from too much exposure to nuclear radiation.

Radiation Sickness

Radiation sickness is neither contagious nor infectious. Fallout radiation cannot make anything radioactive. Food and water that have been exposed to fallout radiation are contaminated only to the extent that they contain fallout particles. Exposed food that may have particles on it can be made safe by washing, brushing, or peeling. Fallout particles can be removed from water supplies by sedimentation or filtering. People who have fallout particles on their bodies or clothing probably would not carry enough to endanger other people, but they should wash themselves for their own protection.

Long-term Effects

Following a nuclear attack, most radioactive elements in fallout would decay rapidly, losing most of their power to harm. However, for some time thereafter the hazard could continue to restrict normal activities in some parts of the country. A few elements, such as strontium 90, cesium 137, and carbon 14, are long-lived and could harm humans in some ways, such as by being absorbed by food plants. However, the long-term damaging effects of such exposure are not yet known in great detail.

Radiation In The Air

Following a nuclear attack the air would be contaminated by radioactive fallout only to the extent that it contained fallout particles. The most dangerous fallout particles—early fallout—would reach the earth in the first day after the detonation, but their mere passage through the air would not contaminate the air. Fallout particles in harmful amounts would not be present in basement family shelters. People in underground family shelters could keep fallout particles out of their shelters by having a simple hood over the air-intake pipe. Special filters are not needed for small shelters. However, group shelters that have high-velocity air-intake fans would have to have filters on the air-intake system to keep fallout particles out.

How Early Fallout Looks

The most dangerous fallout—early fallout—would consist of radioactive particles that are relatively large and heavy—about the size of table salt or fine sand. The chances are you could see

the particles although you could not detect the radiation from the particles without the use of a special instrument.

Special Clothing and Medicine

Fallout radiation would pass through any type of protective clothing that would be practical to wear. Heavy and dense materials, such as earth and concrete, are needed to stop the highly penetrating fallout rays. Certain types of protective clothing could be useful—particularly for emergency workers—in keeping fallout particles off the body, but the wearer would not be protected from the gamma radiation given off by the particles. The worker would wear the clothing when in a fallout contaminated area, and then discard it or brush and wash it off thoroughly before entering a non-contaminated area.

Although many experiments have been conducted, there is little likelihood that a pill or any other type of medicine will be developed that can protect people from the effects of fallout radiation, so that shielding from fallout becomes necessary.

Evacuation vs. Shelter

Two conditions make pre-attack evacuation of less general value as a protective measure for nuclear attack than it appeared to be a few years ago: the danger of radioactive fallout to unsheltered evacuees, and the decrease in the probable attack-warning time if an enemy should attack with high-speed missiles. However, the problem of mass movement of people in the event of a nuclear attack is still a significant one because plans must be made to get people into shelters rather rapidly. Also, it may be necessary to move people out of severely damaged areas after an attack.

Probable Reaction To Disaster

Experience has shown that many human beings act cooperatively when disaster strikes, many feel helpless, a few panic. Disaster studies indicate that information, planning, and preparation clearly increase the extent of cooperative and constructive behavior following a disaster.

Next month FLY-BY will bring you further information on fallout and what you can do to protect yourself from its deadly effects.

"Searchlight" Recommendations

The following is a condensed version of material contained in the Summary Report which was made by team members attached to Project Searchlight. The total report consists of six separately bound parts. FLY-BY presents this condensed version as a means of keeping maintenance and other interested personnel abreast of the findings and recommendations made by this team.

PROJECT SEARCHLIGHT, initiated in August 1960 to analyze and evaluate the Systems Maintenance activities of the Agency, wound up with a comprehensive study of a highly decentralized operation.

These were the objectives of Project Searchlight:

- A definition or restatement of the maintenance job—its role in relation to the Agency's responsibility for the safe and efficient movement of air traffic.

- More effective methods and procedures—including all phases related to the maintenance of facilities (e.g., approach to specific jobs, degree of specialization vs. diversification required, etc.).

- Consider all the factors that have an impact on the maintenance job and the means through which any possible adverse impacts can be identified and then eliminate or minimize.

- Identify the need for adapting and refining geographical and administrative organization to obtain more effective utilization of manpower.

Establishing systems for:

- Developing and maintaining uniform methods and procedures for accomplishing maintenance tasks.

- Determining performance against standards and estimating manpower requirements.

- Maintaining control of maintenance work at field, regional, and Washington supervisory echelons.

- Training maintenance personnel at the FAA Academy and other field locations.

The means of appraisal was by survey. Breadth was made possible by setting up the survey as a joint undertaking of the Agency's management staff (Management Analysis, Personnel, and Training)

and the Maintenance Organization as a task force under the Chief, Management Engineering Branch. The goal was to bring about the most effective and most efficient maintenance operation possible. The study was in four phases: I. Planning; II. Fact Finding; III. Conclusions and Recommendations; and IV. Implementation of the Recommendations.

From the 49 problem areas developed by visits to field stations during Phase I, the Phase II Searchlight team designed and used questionnaires totaling 70 pages with 575 questions. These were filled out by more than 450 people at field laboratory stations assisted by field team members. National coverage was obtained on sector and district organization, formats, communications, and operational patterns by completed questionnaire submissions from 525 of the 550 sectors and 70 of the 75 district offices in the continental regions less Alaska.

In addition, response to many of the questionnaires was submitted by the Systems Maintenance Branches in four regions. Further, to get management views, discussions were held with many officials in each regional, as well as the Washington, office. Several hundred individuals were contacted for "on-site" interviews at more than 60 locations.

Among key recommendations is a proposed National Headquarters organization which would require 119 additional positions (80 engineering and specialist, and 39 clerical) at an estimated annual salary cost of \$975,500.

The suggested establishment of 42 new district offices with a minimum complement of 18 would require 233 additional positions (156 engineering and specialist, and 77 clerical) at an estimated annual salary cost of \$1,478,000.

Staffing the total organization at the National and District level would require 402 additional positions (from the Fiscal Year 1962 base—270 engineering and specialist, and 132 clerical)

at an estimated annual salary cost of \$2,823,500.

It is proposed by the study that the complement of the regional Maintenance Divisions should be augmented by 10 per region—a total of 34 engineering and 16 clerical at a cost of \$370,000. Gradually, regions would be reduced to a level of approximately 60, as the organization is stabilized and greater responsibility and authority is delegated to the District from the regional level.

The increased annual salary cost, totalling 2.8 million is necessary now in order to effect savings substantially in excess of this amount resulting from the potential effectiveness of the new organization. It will make possible Management controls based on national systems, effective planning and scheduling, and improved coordination. Better placement of specialized skills, cost consciousness stimulated by a cost control system, and better utilization of training and experience in a designed career progression, along with other improvements would, the report concludes, also lead toward reduced long-term costs through increasing the net effective utilization of technicians' time.

The implementation of Project Searchlight recommendations would result in the execution of an expanded role in a more effective, efficient, and economical manner. Based on present plans, it appears that the total costs of maintenance will continue to rise generally over the next ten years. Adoption and implementation of the Searchlight recommendations would, it is urged by the report, have two major effects. First this would make it possible to hold increases to a flatter growth curve; and second, they would give the Agency much greater assurance as to what return it receives from the dollars expended for maintenance. It would bring a cost control system to FAA maintenance for the first time, and reduce the paper flow to essential information.

Here are some additional specific recommendations:

Organization and Management

- That there be established a Federal Aviation Agency Airways Systems Maintenance Service.

- That the number of systems maintenance district offices be reduced from 75 to 42 (40 in the contiguous United States plus San Juan and Panama). Neither this recommendation nor any of the succeeding ones pertain to Alaska or Hawaii.

- That the new district offices be established, authorized, and activated as field management centers for FAA maintenance, with uniform organization structures appropriate for that purpose.

- That the district office be clearly established as the maintenance hub and central authority for all maintenance activity in the district.

- That district managers be selected from an Agency-wide canvass, with qualification requirements stated as an optimum experience blend of management, engineering, and technical know-how.

- If these new district supervisory positions are given the duties and scope of responsibilities recommended in this report, it is the belief of the team that these positions equate to other GS-15 positions in the Agency.

- That these positions be opened to all employees of the Agency wherever qualified, and impartial boards established to select the best qualified candidates.

- That the district manager be authorized to prepare and execute the maintenance operating program for the district.

- That the district manager be authorized to establish, subject to higher authority approval, sector locations, offices, boundaries, organization, staffing, equipment and facility responsibility, and operating work methods.

Technology of Maintenance

- The technology of maintenance should be recognized as an asset and tapped, utilized, and disseminated to the best advantage of the Agency.

- Carefully evaluate the impact of Agency decisions on maintenance during the decision-making phase and early appropriate action initiated during the planning and programming phase.

- Assemble task forces with direct maintenance representation to design a

technical feedback system, resolve differences, and establish or modify system or equipment tolerances and performance criteria.

- Authorize Systems Maintenance to conduct direct coordination activities with the Air Traffic Service, Flight Standards Service, Airports Service, Aviation Research and Development Service, the Office of Personnel and Training and the Office of Management Services.

- Create an organizational entity within the framework of Systems Maintenance to accomplish the early and timely collection, preparation and distribution of technical intelligence.

- Give Systems Maintenance full control of its resources, manpower, money, materials, and equipment.

- Systems Maintenance should initiate studies to improve and simplify maintenance techniques and procedures and utilize the services of the Aviation Research and Development Service to the maximum extent possible.

- Assign Systems Maintenance the total responsibility for the test equipment program together with the necessary funds, authority, and staffing to discharge the responsibility.

- Systems Maintenance should prescribe national standards for the repair and calibration of all types of test equipment.

- Develop a means to tap the fertile field of ideas existing at the sector level for improvements in test and monitor equipment and simplification of testing techniques.

- Utilize the technology of maintenance at the conceptual and specification design stages of test gear and monitoring equipment.

- Clearly define the responsibility of Maintenance and other organizations for the development and implementation of modifications.

- Systems Maintenance should have full control of its resources, and the use of maintenance manpower to accomplish modifications or frequency changes should be coordinated with and approved by Maintenance.

- Establish a national policy to delineate minimum pretesting requirements for all modifications.

- Systems Maintenance should initiate an educational program leading toward a better understanding at all levels of the philosophy, purposes, values and importance of evaluations.

- Systems Maintenance should issue evaluation policies, standards, and guidelines for all levels of evaluations. The evaluations should be streamlined and oriented, at the Washington and regional levels, toward the use of management techniques with a minimum of technical inspections.

- Information feedback should be streamlined and in the form of summaries of the major trends.

- Designate a task force, with full Maintenance representation, to resolve the problems of mutual concern to Flight Inspection and Maintenance.

- Close and direct coordination should be effected between the Airports Service and Maintenance at all comparable levels.

- Furnish timely planning information to the maintenance district offices.

- Initiate an educational program to acquaint personnel of the Airports Service and Maintenance with the bilateral impact of their respective programs.

- Maintenance should initiate an aggressive program to develop an adequate relationship with local airport management.

- Establish national standards with provisions for enforcement by Maintenance for sector and district office work storage and administrative space. The standard should apply equally to military and FAA facilities and a program developed for correction of present sub-standard conditions.

- Systems Maintenance should have the authority, means and resources to determine the type, quality, quantities, procurement and distribution of tools, working equipment, space and technical intelligence required by the maintenance engineer or technician.

- Agency standards should be issued prescribing (a) the conditions under which government housing may be considered; (b) travel conditions for which special equipment such as vehicle air-conditioning, protective clothing or two-way communications should be provided; (c) realistic standards based on human as well as equipment factors for the cooling and heating of buildings and offices, and (d) the conditions under which routine travel by an employee from his first point of duty to his watch station is considered official travel time.

- OPT should systematically survey employee environmental conditions and make recommendations for remedial action when warranted.

Management Control

- Establish a program and organization to determine the requirements of an integrated control system for the Airways Maintenance Service and to assure continuing audit, review and improvement of the System. The organization should be a group consisting of a representative of each of the divisions and chaired by the Assistant Service Director.

- Develop and install a manpower and cost control system in order to provide the Airways Systems Maintenance Service with data to distribute and evaluate the use of manpower and other resources of the Service. The program would replace the present 1880 system and consist of the following parts:

A set of time standards for each cyclic preventive maintenance task and a continuing program for updating and refining the standards.

A reporting system to provide management with operating data.

A cost analysis and control system.

- Establish a program to improve planning and scheduling procedures at the sector and field working party level. The program should consist of the following parts:

A set of uniform planning and scheduling guidelines.

A system to provide supervision at all levels with condensed planning information.

Supervisory training in the fundamentals of planning and scheduling.

- Establish a uniform system of qualitative and technical reporting to meet the needs of the Service in the areas of quality control, technical intelligence and continuing evaluation of preventive maintenance procedures to determine requirements, techniques, frequency of performance and the economic parameters of maintenance activity. In addition, install a work simplification and standardization training program for supervisors and engineers.

Personnel

The team recommends that the classification standards project be completed at the earliest possible date, to accomplish the following:

- Using maintenance job analyses developed in Phase II, apply factors that allow greater flexibility in grade structure and organization than the rigid system of facility categories contained in the present standards.

- Recognize the FAA electronic system complexities in relation to other agencies' equipment.

- Provide grade levels commensurate with the complexity of the work and the responsibility for safety of life and property placed on the electronic technician in the FAA.

- Take into consideration today's management responsibilities encompassed in supervisory positions.

- Conduct a job analysis by the Airways System Maintenance Service and OPT jointly of the work of the electro-mechanical technician.

- Re-examine wage rates on other crafts and trades positions, those assigned to a Field Working Party or other large area type operations.

- Formulate and actively pursue jointly by OPT and the Airways Systems Maintenance Service the preparation of proper legislation that will allow the maintenance technician to be compensated on a fair and equitable basis for all his "on duty" time whether in travel status or at a site.

- Develop safety policies, standards and procedures with respect to (a) critical hazards involving radiation, particularly at Radar Sites) electrical shock and working on high structures and (b) employees working alone in remote or hazardous areas.

- Develop safety plans for remote hazardous areas including identification of major hazards, travel routes, points of entry and exit, basic safety requirements on personal and communication equipment and procedures in anticipated contingencies and search and rescue.

- Determine through OPT and the Airways Systems Maintenance Service a program for elimination of existing safety hazards.

- Make a joint examination through Aviation Facilities Service and OPT of electronic maintenance technician qualification standards and their application. The examination should, if necessary, derive new standards and candidate rating scales.

- Re-examine within Systems Maintenance its procedures for making its staffing requirements known to OPT to find means of speeding up the process. In this examination, better methods should also be developed for determining what levels of technicians and engineers are needed.

- Fix employee qualification requirements in the examination of the electro-

mechanical function and develop new qualification standards.

- Encourage and expand the trainee engineering program wherever possible.

- Place emphasis on the development of OPT screening methods and performance standards and complete these projects as soon as possible.

- Explore means and develop plans to give sector chiefs greater authority in personnel selection particularly in the key positions in the Sector.

Training

- Draw upon Specialist Technicians (Communications, Nav aids, Radar or Computers) for 35 to 40 percent of the total maintenance career complement.

- Prescribe a radical change in the pattern for the present jack-of-all-trades training pattern.

- Teach the indoctrination portion of the Communications Equipment Course separately.

- Build into the career development ladder a "New Look" course in supervision and management.

- Establish at each of the 42 maintenance districts a full-time position of Technical Training Specialist.

- Confine the training role of the Headquarters office, Airways Systems Maintenance Service, to: (1) establish national objectives, goals, and policies; (2) determine national priorities and requirements, and (3) evaluate overall training effectiveness and personnel performance.

- Strengthen the role of the Training Division of OPT to provide more positive executive direction of all Agency training.

- Develop a formal program for the certification of technicians who meet job qualifications standards in terms of required knowledge and skill and demonstrated ability.

- Provide a practical course in basic office management for all new supervisors.

- Remove the limitations on enrollments in the Directed Study course "Fundamentals of Supervision" since it can be a valuable asset to every supervisor.

- Encourage through Training Division the use of local institutions which provide courses of training in basic and general theory.

- Set up adequate on-the-job training programs at the FAA Academy.

DIRECTIVES IN BRIEF

This listing is intended only for general information and as an index of current Agency Orders, Bulletins, Practices and Practice Bulletins. They can be seen at your personnel office.

Agency Orders

No. 62 (31 Jan 62)—Prescribes basic policy of FAA with regard to automatic data processing (ADP), delegates authority, assigns responsibility, and defines terms.

No. 78 (31 Jan 62)—Delegates authority to regional Assistant Administrators for the establishment, transfer, relocation, or closing of certain field offices and manned facilities over which they exercise jurisdiction.

No. 81 (9 Feb 62)—Establishes policy and guidelines for use of Agency aircraft (a) by other Government agencies and (b) for carrying passengers on flights conducted in official business of the FAA.

No. 82 (26 Feb 62)—Sets forth Agency policy on placement of employees who no longer meet physical requirements of their current positions.

Agency Bulletin

No. 62-4 (26 Feb 62)—Redesignates Field Operations Division, ATS, as Operations Standards Division.

Agency Practices

No. 11-8 (5 Jan 62)—Sets forth responsibilities and procedures related to administration of funds appropriated by Congress for international representation and entertainment expenses.

No. 1-8 (26 Jan 62)—Lists alphabetical prefixes currently assigned to major elements of the Agency and incorporates the provisions of Agency Practice Bulletin 1-5 regarding routing symbols for the Regions.

No. 8-2 (26 Jan 62)—Prescribes policy and procedure governing the clearance, coordination, and review of directives.

No. 3-713 (30 Jan 62)—Disseminates policy and procedures governing equal employment opportunity.

No. 8-3 (31 Jan 62)—Describes need for coordination of ADP activities.

(26 Feb 62)—Checklist of Agency Orders, Bulletins, Practices and Practice Bulletins as of Feb. 9, 1962.

Masden Appointed To Helicopter Post

Ward B. Masden, former chief of Flight Standards Service's Operations Division, has been appointed assistant to the director for helicopter matters of that Service.

Masden, who has been serving as head of a helicopter advisory committee for the Agency, will be responsible for Flight Standard's participation in the testing program of the Decca system of helicopter navigation which is being conducted in the New York area. He also will be responsible for FAA actions concerning the new performance rules for helicopter carriers and the services and regulations required for the introduction of new twin-turbine helicopters.

The new assistant to the director position was created to meet growing demands for additional services and facilities resulting from expansion of helicopter operations.



Ward B. Masden

A native Kansan, Masden attended Kansas State College prior to joining the Navy in 1933. He was graduated as a Naval aviator in 1937 and served as such until joining the CAA as an air carrier safety inspector in 1941. The following year he was assigned to the CAA's Canal Zone District Office serving there until 1945 when he became technical advisor to the American Embassy in Panama.

In 1955, he became deputy chief of the Air Carrier Safety Division, and was promoted to chief in 1956. He served as deputy regional administrator in the Agency's First Region, now Eastern Region, from 1958 to 1959, leaving there to become chief of the Flight Standards Operations Division.

Succeeding Masden as chief of the Operations Division is James F. Rudolph, formerly assistant chief of the Air Carrier Branch for that Division.

A Californian, Rudolph flew as a pilot with the Air Transport Command during World War II.

Rudolph joined the CAA as an air carrier safety inspector in 1945.

TWO NEW general aviation aircraft recently certificated by the Agency are the twin-engine executive transport, Beechcraft Queen Air 80 (below left) and its smaller relation, the four-place Beechcraft Model 23 Musketeer. (Beech Photo)





TRAVELING ON OFFICIAL BUSINESS?

Your chances of not having to dip into your own pocket to meet expenses are considerably bettered by passage of P. L. 87-139, approved August 14, 1961. Congress increased the maximum per diem allowance from \$12 to \$16 per day, and allows \$30 per diem (formerly \$25) for official travelers, under unusual circumstances, who are authorized to be paid on an actual expense basis.

Driving your own car or flying your own airplane entitles you to compensation at 12 cents a mile (formerly 10 cents), and the motorcycle set can claim 8 cents (formerly 6 cents). Include the bill for parking fees—you're covered.

Traveling outside the continental United States, and Alaska, may be reimbursible on the basis of actual expenses up to \$10 more than the maximum per diem allowance where circumstances are unusual.

EVACUATION PAY

Even if misfortune frowns upon you and sends you to a locality from which you must later be evacuated due to conditions threatening imminent danger to your life or that of your family, President Kennedy has ameliorated your plight by making it possible for you to flee with some change in your pocket. By signing P. L. 87-304 on September 26, 1961, he authorized Government agencies to advance up to 30 days pay, including allowances and differentials, to or for the account of evacuees. Further, if after you are evacuated and are prevented by circumstances beyond your control and beyond the control of the Government from performing the duties of the position which you held prior to your dispatch, you may be advanced another 60 days' pay (or even 180 days if the President deems it in the national interest). But one caveat attaches: even our legislators subscribe to the policy that if you borrow now you'll have to pay it back some time later!

FAAer Chosen For Congressional Job

Alfred E. Rhode, Facilities and Material Advisor in the Technical Assistance Division of the International Aviation Service is one of five federal "interns" selected from various agencies to see how the other half lives by working for the next five months in the offices of senators, congressmen and committees of Congress.

The project, suggested by the Civil Service Commission, is being co-sponsored by the American Political Science Association. It is supported by the White House and Congressional leaders of both parties.

Beginning February 5, the chosen five were turned over to the APSA for assignment to Congressional offices where they will work until August 15, or the end of the current session, whichever is sooner. Most will work in the House until Easter and then move over to Senate offices.

Air Traffic Control Extended In Pacific

Extension of air traffic control services for air operations two-thirds of the way to Tokyo and within 25 miles of Russian territory on the Kamchatka peninsula and the Kurile Islands was recently announced by the Agency.

The additional oceanic air traffic control service by the Anchorage ARTCC enlarges the area covered by the center to five times its former size and extends the center's area to join the area controlled by a center in Tokyo. The service went into effect February 8. The Anchorage Center now controls an area of nearly two million square miles.

The new service will be of primary use to international air carriers and military aircraft flying between Alaska and the Orient. D. S. Wolfe, chief of FAA's Alaskan Region air traffic division visited Tokyo to coordinate international control procedures with Japanese officials.

Traffic will be controlled by the Anchorage Center through Communications outlets at Cold Bay, and Adak and Shemya Islands with FAA's International Flight Service Station at Merrill Field also providing communications.

HEALTH FOR ALL

ENVIRONMENTAL HEALTH DIVISION
AVIATION MEDICAL SERVICE



Mumps

Mumps is a communicable disease caused by a specific filterable virus. This virus is in the saliva of a person with mumps and is spread to others by coughing or sneezing, by kissing or other personal contact, or possibly by using soiled objects such as drinking glasses.

The symptoms or signs of mumps appear about 3 weeks after exposure. Usually the first sign is pain under the ear. Then comes fever accompanied by swelling of one or more glands in the neck or throat—usually just below and in front of the ear. Severe cases may start with chills, fever, headache, and loss of appetite, which appear a day or two before the glands begin to swell. Most cases last about a week.

It Can Be Dangerous

Ordinary cases of mumps among children are seldom serious if properly cared for, although complications sometimes occur. Mumps is a disease which is more dangerous to adults than to children.

Who Gets It

Most cases of mumps occur between the ages of 5 and 15; the disease is less frequent among adults. A person who has had mumps is usually immune for life, and will not get mumps again. The disease usually breaks out during the winter and spring, especially in schools or other institutions.

If someone in your family has been exposed to mumps, ask your doctor or your health department for advice. Depending on the circumstances, they may think it wise to keep the person at home or to give some treatment. Remember, it may be three weeks or more before you can be sure that the exposed person has not caught mumps.

If the signs of mumps appear, call your doctor right away, and follow his instructions. Until the doctor comes, keep the patient in bed, away from others, and see that he has plenty of fluids and a soft diet.

Follow all local and State health laws, rules, and regulations faithfully to avoid spreading the disease to others.