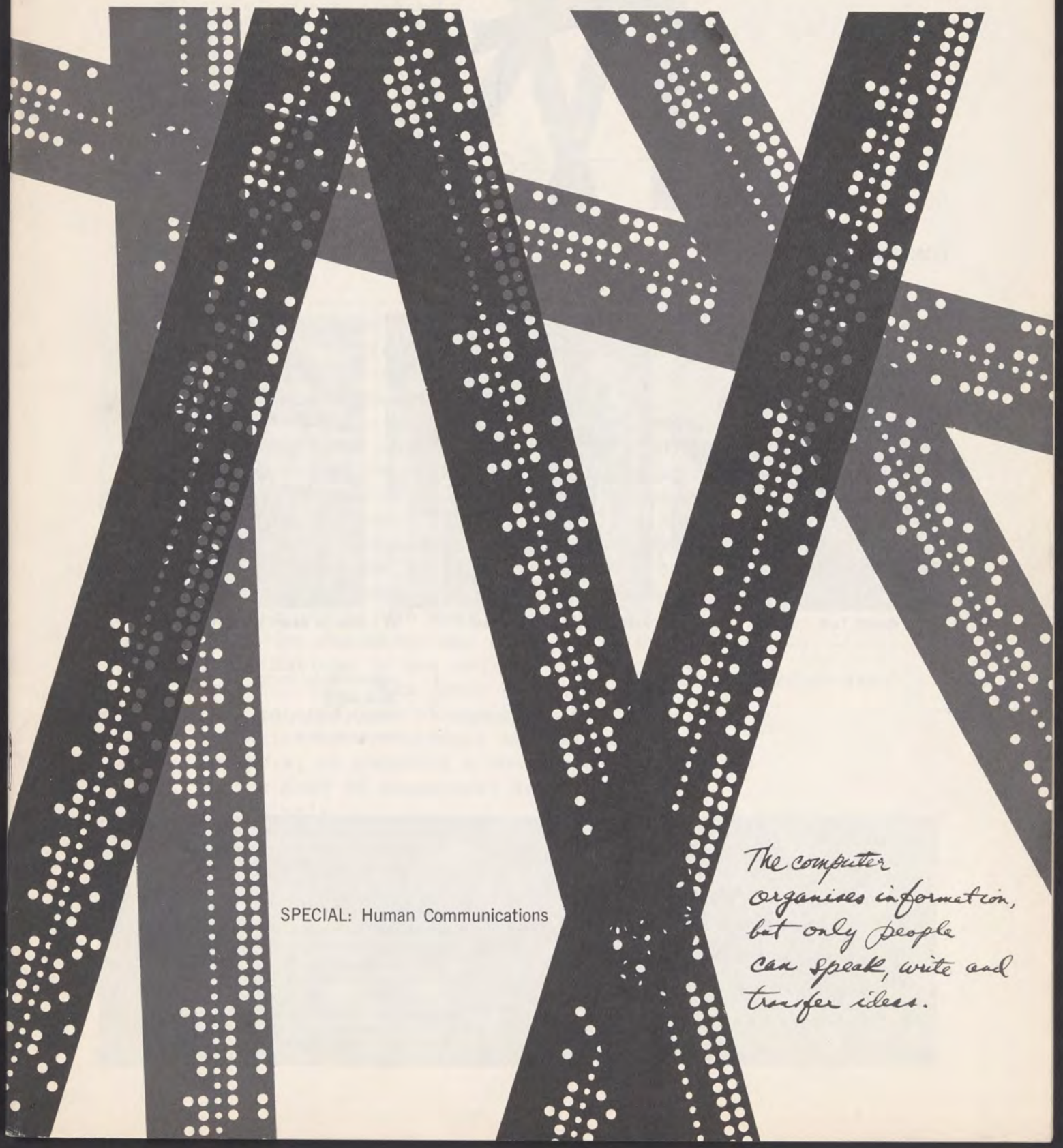
FAA HORIZONS

OFFICIAL EMPLOYEE PUBLICATION OF THE FEDERAL AVIATION AGENCY / MARCH 1967



SPECIAL: Human Communications

The computer organizes information, but only people can speak, write and transfer ideas.

COVER

Technological progress has been bought at the price of increased complexity. The manager must base decisions on accurate, organized knowledge which can be supplied only by automatic data processing. He may be able to develop the patterns of order and the information systems required to achieve his plans. But the plans will be relatively ineffective unless he can win the wholehearted support of employees, clientele and the public.

CONTENTS / MARCH 1967

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SPECIAL: Human Communications

How "the word" gets around in large organizations is debated and studied with increasing fervor as both Government and business continue to grow. Researchers point out that the effectiveness of human communications falls off rapidly beyond the face-to-face relationships. Devices like radio, telephone and television have contributed very little to understanding between individuals who make up the same group or between individuals in different groups. The loss of face-to-face contacts between people who must depend on each other for decisions and results in large organizations is the root of most management snafus. This gives rise to a need for profound understanding of human communications processes and patterns. In short, it requires a conscious effort on the part of management to communicate effectively.

Some of the communications patterns in FAA are covered on the following pages.

IT'S EASIER DOWN HILL

EACH Monday afternoon at 1:30, Deputy Administrator Dave Thomas says, quite casually, "Good afternoon, gentlemen!" He says it so casually, in fact, you'd think he was speaking comfortably to a visitor just across his desk.

But his voice travels literally thousands of miles throughout this continent and to Europe. He and the FAA Washington staff talk personally by phone with Regional/Center Directors on the weekly "TELCON." The lively hour-long sessions highlight significant FAA topics and, at the conclusion, there's a genuine consensus on a "One FAA" philosophy.

With a brisk, "All Regions are in conference, sir," John Patrick, head of the Headquarters Communications Control Center, concludes a complicated telephone-electronic lash-up, and the TELCON begins with field officials.

Washington staff members, **above**, stand by while Deputy Administrator Thomas (at far end of table) discusses a point with Region and Center Directors over a nationwide telephone hookup. At right, Southwest Region Director Henry Newman uses the same device in holding conferences with his area managers. Besides being one of the fastest devices for communicating Washington policy to the field, this type of "multiple management" participation provides a two-way flow of information.

The Directors of Eastern and Southern Regions and NAFEC, Oscar Bakke, James Rogers and Jack Webb, have, like the Washington group, just returned from lunch when the meetings start. Western Region Director Joe Tippets, though, has had only two hours to pull together notes of events of the previous week which merit discussion. Alaskan Regional Director George Gary has barely had time to gulp his morning coffee before the meetings start. Central and Southwest Region and Aero Center Directors Ed Marsh, Henry Newman and Lloyd Lane are thankful that their time is only an hour behind Washington's. (Phillip Swatek, Pacific Region Director, sacrificed his hook-up to the communications demands in the Vietnam crisis.)

Despite the differences in time and distance, the group discusses topics of mutual concern with almost the same ease they would enjoy in the same room. A staffing problem is aired between the staff personnel man and the two or more regions concerned. A nuance of a policy, obscured in the formal language of directives and handbooks, is explained by the originating staff officer. A new approach to a management problem is aired by the regional director who has found a solution for those facing similar situations.

The Weekly TELCON is only one of many ways that FAA supplements its formal communications program. The telephone contact is extended, in many regions, to area managers. After talking on the "Washington TELCON," some regional directors assemble their own staffs and hold a meeting similar to Thomas' Washington meeting, for the benefit of their own field offices.

Those who for one reason or another don't have area TELCONS, pass the word in a succession of interlocking staff meetings.

This chain-of-command contact is the easiest part of the communications process. People with similar responsibilities find it easy to talk to one another regardless of distance. Modern communications equipment makes a man who is a thousand miles away as accessible as one in the next room.

Hopefully, FAAers won't find themselves in the position of a sailor on the good ship *Bon Homme Richard*.

As he was clearing the shattered rigging from the cannon so he could fire another volley, he heard John Paul Jones shout, "We have not begun to fight!"

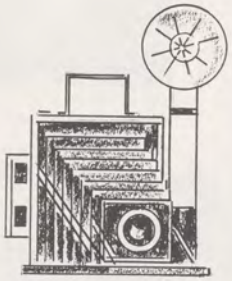
The sailor muttered to himself, "There's always someone that don't get the word."

Central Region Director Edward C. Marsh **(above right)** takes to the tape recorder to broaden the direct contact he likes to maintain with all CE employees. The tapes, which can be erased for reuse, are mailed to all CE facilities. Another direct contact to employees is through a weekly newsletter, **Intercom.** Washington input for the letter is mailed to all regions each Friday, and by mid-week, it reaches all employees complete with input from their own regional headquarters. Pacific Region employee **(above left)** Robert McClement with a recent issue.

NAFEC Director Jack Webb, right, and his deputy, Robert Cannon, during the weekly national conference.

After attending the regional staff meeting, William Croyle, Accounting Division chief, PC, meets with his branch chiefs. The gestures and facial expressions illustrated here are lacking in some other forms of downward communications.

Janet Maupin: "I look forward to the employee publications. They make me feel more a part of the organization."



inquiring reporter

Our inquiring reporter nosed around various Agency offices in the field to try to get some answers to questions that had been bothering him. What he really wanted to find out was whether he and his job were really necessary.

He wondered why management went to the trouble and expense of conducting organized employee information programs.

So, he decided to ask a representative number of employees how they felt about the program, what if anything it accomplished in the eyes of employees, and what the regular publications meant to them.

Here are some answers . . .

Walter J. McNallan: "Information programs help to stimulate pride among employees in Agency achievements."

George Myers: "Reading about the work other employees do helps me see how my job fits into the total effort."

Hugh Hampton: "By recognizing individuals or groups, the Agency can develop in employees the recognition that their own work is significant and important."

Otto Radunz: "Employees need to understand management objectives to stimulate their desire to cooperate in Agency programs."

Carol Wagner: "I deal with technical project numbers and photographs every day, and employee publications keep me informed as to what they are all about."

John Blackwood: "We all want to be part of the team. Scattered about as we are, it would probably be impossible without an employee information program."

Diana Gordon: "Well, I guess I never really thought about it. . . ."

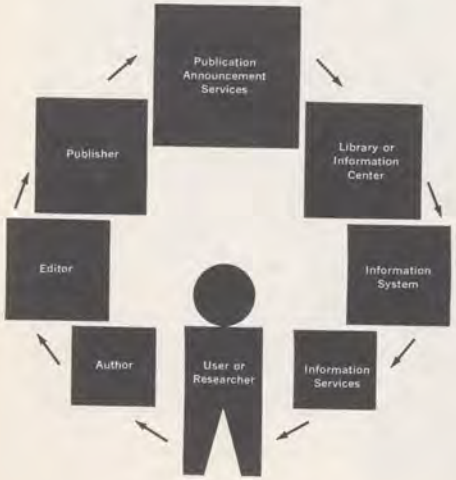
"What does it do for me?"

"Of course, I don't read HORIZONS or INTERCOM during working hours, but . . ."

"They're wonderful companions on a cold night."

how to cope with the information explosion

Hq. Library Chief Paul J. Burnette and FAA head of library services, B. Lamkin, author.



Technical Information Cycle

Too much information can be as crippling as too little. A well-documented body of knowledge buried in a scientific journal under an obscure title is lost to many potential users unless there is a system for retrieving the information when it is needed.

To help its people deal with the problems they might face in research and development, engineering and management, FAA is working toward an integrated scientific and technical information network. When it is complete, the speed of the computer will help managers, engineers and scientists alike to locate the information they need.

The quality of FAA programs will be improved, but even more important, the widespread use of such systems can save a good share of the sizable Federal research and development costs. There is increasing concern that duplication exists in the $15.3 billion worth of research and development bought by in 1966 by the Federal Government. It's a simple fact that existing information systems just can't cope with the volume of information being produced. New technical documents created every day would fill a 168-volume encyclopedia. To help solve the problem, the Federal Government is spending $250 million each year to make scientific and technical information more readily available. Even with this outlay, there is general agreement among both scientists and politicians that the situation is becoming more acute. Although solutions to the information explosion are in progress, the total information problem is not adequately understood. It's a complex problem involving the generating of information, its properties, transformation, organization, communication, storage, retrieval and use.

FAA's Program

FAA libarians have little hope of *solving* the vast information explosion, but they are helping to develop a competent internal information program to cope with FAA generated technical information and to collect pertinent information from external sources. To meet their prime mission—service—FAA libraries are improving their ability to tap the world's information resources and interchange appropriate information with all potential users of FAA information services.

Ten major library facilities—at Headquarters and at the centers and regions—are the foundation of the FAA scientific and technical information program. Libraries are being established at 16 area offices to serve legal requirements. Other special purpose library facilities have been set up in international aviation field offices and other field organizations.

Two examples are the FAA Film Library at the Aeronautical Center and the NAS Documents Library at Atlantic City. These libraries are being integrated into an overall FAA scientific and technical information network.

Centralizing to Support Decentralization

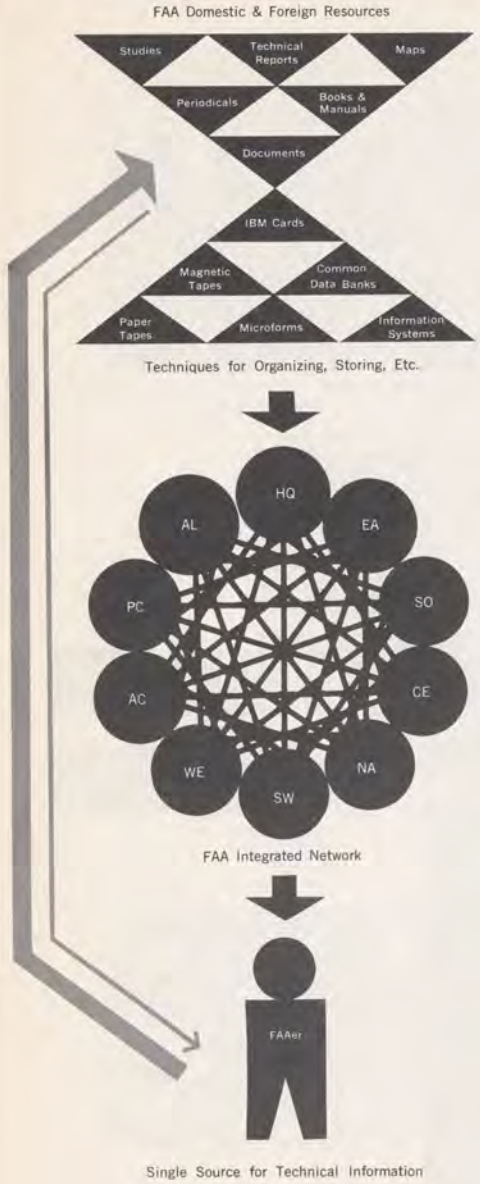
With an integrated information network, the smaller, specialized libraries will not be limited to local resources. With an information retrieval system based on advanced computer techniques, each FAAer will have access to the full range of FAA information resources. Also, through cooperative agreements and interlibrary loans with commercial institutions, universities and other Government organizations, much additional information will be available to all FAA personnel.

FAA libraries, then, will serve as switching networks to tap a broad spectrum of technical information sources for FAA people wherever they might be located.

The pattern of flow—from field sources to common data banks where it is correlated and stored and available for use by other field units—follows FAA's decentralized organization pattern.

How the Information Retrieval System Works

Thousands of documents are received annually by the major FAA libraries. Summaries must be made for the information in each and records made for control purposes. Document



processing is centralized so that they will be equally available to all interested FAA facilities. Copies of processed documents on microfilm reels are distributed to each major library facility. Each facility has an information retrieval capability. New documents are announced throughout the organization in a special bulletin. An *FAA Thesaurus of Descriptors* also helps facilitate communications among technical personnel, librarians and the information retrieval system.

A more sophisticated combination of advanced data processing equipment and on-going FAA information retrieval systems is now being studied. This will improve operating efficiency, broaden the capability of the system and make it more responsive to the individual needs of FAA technical personnel. Thus even local requirements for technical information can be served, through ADP, by FAA's information retrieval common data banks.

Managers Please Note

The concepts and tools used to control information within a library or information center are applicable to non-library problems. Many organizations are starting to move toward total information management systems concepts. Many library and documentation techniques are being tested and applied to solving other technical and administrative information problems. For example, librarians have assisted administrators in developing category listings and indexes to correspondence files, manuals, engineering test data, engineering handbooks, photographs, slides, engineering drawings, and other types of information.

Get Your Money's Worth

A first step toward understanding how your FAA library and information retrieval systems, present and future, apply to your specific information requirement is a visit to your local facility. The person responsible for these services will arrange a tour of the library to familiarize you with on-hand resources and those under development. If you are not familiar with the Agencywide bulletin that announces new technical documents, be sure to look at this and discuss the potential use of this bulletin and other locally prepared lists. Bring with you a technical problem and see how the information retrieval system works and learn how other non-FAA abstracts and index resources may provide answers to your problem. If you have an organization problem or need a tool for facilitating the retrieval of specialized information in your department, discuss with your local librarian or retrieval specialist the variety of techniques and systems available to solve it. They will be especially well equipped to serve you during National Library Week, April 16-22.

Your FAA library can help increase your proficiency. Self-education has been a major part of library programs throughout history.

Although an information retrieval system and library are the first building blocks toward a comprehensive total information system, remember that you are the most important element of the system. The system is designed to serve your technical information requirements. Unless you use it and make your needs known to your librarian and inform the system of its successes and failures, it will not serve its intended purpose.

—Burton E. Lamkin

This ashtray/coaster will grace the desk of all Southern Region employees who submit acceptable suggestions.

A challenge loomed before the Southern Region's Recognition and Awards Committee when the Employee Suggestion program began showing signs of stalling. It was bad enough that Southern might lag behind the other regions, but as much as Director James Rogers likes his region to be a front runner, he had a more compelling reason for wanting to fire up suggestions.

Like most managers, he sees the various types of suggestion programs as shortcuts through the formal communications systems. People who are close together, either because of their working relationship or physical location, can communicate quite well without programs such as the Unsatisfactory Condition Report or Employee Suggestion system. But the ideas, imagination and initiative of all employees are needed, and some of the best are often lost in the filtering influence of the intermediate echelons.

After several false starts on promotional gimmicks the group finally hit on an idea. Each person who submits an acceptable suggestion now gets an attractive ashtray/coaster designed by SO's talented artist, Stephen Felker.

More incentive is added by distributing colorful flyers to each employee. These explain what constitutes an acceptable suggestion, clarify hazy areas (such as what constitutes "normal line of duty"), and urge employees to submit *all* their ideas.

Once each month, the regional *Intercom* states a specific "Problem of the Month" to challenge the imagination of all who might care to tackle it.

Early results indicate that this new idea will have exactly the effect intended. It is paving the way for still more new ideas.

a new idea about ideas

Mary Ann Pinkston, secretary in SO regional office, receives a memento for her suggestion from recognition and awards coordinator Claude Hayes.

Central Region's recognition and awards program produced this bumper crop of certificates. From left, Joe Thompson poses with Don James, Rupert Franklin, Genevieve Sayles, Nolan Wesely and Mike Largo, all of his office.

Leland H. Hayden, **above,** and John J. Swearingen, **below,** seem to specialize in the types of ideas that immediately precede action. Hayden recently received the Meritorious Service Award from Southwest Region Director Henry Newman for his "management of air navigation facilities in promoting flight safety." Swearingen was named to the President's first National Motor Vehicle Safety Council. The appointment stemmed partly from his research toward improving safety in aircraft cockpits and in automobiles. The work was recognized last year with a $1000 award from the National Safety Council.

When the Department of Transportation asked employees for ideas for a Department seal, 1276 responded. Here Paulette Dinniny, right, can barely see over the pile of entries she is helping contest coordinator Sue Silverman process.

Louis Stepter is a man about town in the truest sense. Among those with whom he has a close working relationship is James Woodard of Arkansas' year-old Aeronautics Commission, shown with Stepter, right, on state capitol steps. Perl Welchel, **below,** serves Atlanta citizens by answering their questions about local Federal services from Atlanta's combined information center, the first of many to be established in metropolitan areas.

The PROPAGANDA of the DEED

Supervisor, counselor, orator, coordinator, expert d'affaires. These are all roles of FAA's front line team. And in approximately 150 communities in the United States the front line team leader is the local coordinator.

It is the local coordinator who unites employee efforts to project the "One FAA" image. He serves as spokesman of the FAA. He is the communications link with the non-federal community.

One such local coordinator is Louis W. Stepter, chief of the Little Rock Tower. He is a man of energy with an ear cocked for the slightest whisper of community happenings.

His earlier training in athletics gives him a tireless pace and a spirit of team play. He blends his coaching and umpiring talents into his work, complementing them with communications skills learned in 26 years of air traffic control.

Whether it is a local coordinator's meeting, professional, civic or youth work—or preaching a Sunday morning sermon at a rural church, as he regularly does—Stepter is a messenger of FAA good will.

He and other FAA local coordinators are the spokesmen who help bring into focus all of the community services carried out by all FAA people.

Community contacts by individual FAAers form the most effective community relations avenue the Agency has. Every Government agency must secure

continued, page 14

When we deal with the public, the being and doing is more important than the saying.

TWA hostess Cathy Thompson and CE public affairs officer Joe Frets join forces to present the career potentials in aviation before high school groups. Similar programs and aviation education workshops are conducted throughout the country by FAA personnel.

Channels to the public are illustrated by, **top left,** FAA publications, and, **top right,** by public information specialist Marge Goss delivering an Alaskan Region news release to managing editor William J. Tobin of Anchorage Times. **Above,** John Vaughn, Pacific Region, goes before television camera in support of Labor Day Safety Campaign.

public understanding of its programs, whether it is providing services to the public or regulating it in the interest of safety. If no one knows of these valuable services, safety may be affected. If the people to be regulated *do not know* what they are supposed to do, they *cannot* do it, and if they do not agree with what they are supposed to do, many of them *will not* do it.

Consequently, FAA, like all other administrative agencies, engages in a number of public educational activities. Some are carried out on a national scale by the Office of Information Services, whose director is Charles G. Warnick. In each region, a Public Affairs Officer with, perhaps, one assistant, conducts a regional program.

These professional information people deal with the public through newspapers, magazines, radio, TV, and other news media or through organized groups. The most important of these groups is FAA people.

Horizons and *Intercom* explain FAA plans, programs and policies to FAA people. News releases, public statements, exhibits, films, take the FAA story to the public.

How the Agency deals with its own *people*—the extent to which it *communicates* effectively with its personnel—strongly affects *public* attitudes toward FAA. An informed employee can become a channel of accurate, authoritative information to the public. Such an employee, talking to friends and neighbors on an informal basis, has the advantage of projecting greater credibility because of the face-to-face, informal nature of his dialogue with the public.

Thus the employee information program and the public information program are really just two channels of the same program.

Of all these channels of public relations, there is one device that is effective above all others. If an agency's plans are reasonable, obviously adapted to the end in view, and if its employees present them in a friendly, humble fashion—that agency will get a good deal of public acceptance.

According to most of FAA's clientele, our employees do just that.

Agency-produced materials explain FAA services and policies to both the public and to FAA personnel. Audio visual personnel, **above,** view film clips for editing. Artist Abner Cohen, **below,** checks cover art for **Horizons.**

Assistant Administrator Robert V. Reynolds, **left,** provides the link between general aviation and FAA by interpreting policy to GA groups and GA problems to the FAA staff. A link with both field operations and broad aviation interests is provided by task groups of field personnel. **At right,** a group confers on present and future problems at flight service stations. This group, one of three, includes, from left (seated) August Valentincic, SW; Owen Meredith, CE; Douglas G. Rhodes, SO; Col. Richard H. May, AT-30: (standing) Edgar B. Johnson, AT-20; Leonard Sinks, AT-110; and Dayton B. Jenkins, AT-110.

A shared interest in aviation and professional problems makes FAA field operations more than the inspector-clientele relationship. It's usually friendship. **Above left,** E. H. Pickering, left, president of Wren Aircraft, Ft. Worth, points out a modification in his STOL aircraft to Ft. Worth EMDO inspector Gene C. Berrier. **Above right,** GADO inspector Ray Beckelman, right, gets a feedback on a proposed FAR from Ed Richey. **Left,** the finer points of aircraft engine inspection are explained to a mechanic by George Boals, right. **Right,** a cooperative approach to aviation safety is symbolized as operations inspector Thomas H. Ray goes over a checklist with instructor A. S. Clevenger at one of the instructor refresher clinics sponsored jointly by FAA and the Texas Aeronautics Commission.

TALK ABOUT TALK

Tops among all the marvelous communications devices now being produced is a mobile, easily maintained information storage mechanism capable of being operated by two people. Programming takes several years, but an infinite amount of information can be stored in it with comparable ease, and replay is spontaneous.

FAA has more than 42,000 of them—male and female.

All formal communications systems occasionally break down, but people-to-people communication can always be depended upon to operate speedily. What's more, it is often said, there's nothing much you can do about it. You can't stop people from talking. The only choice you have is whether they are saying good things or bad things about you.

People who work together day in and day out become a real social group. The members usually call one another by their first names. They meet, not as officials and employees, but as whole persons with likes and dislikes, family and social problems, and so forth. Enduring friendships are often formed which extend beyond the confines of the work place into social life.

In a large organization, there are literally thousands of such groups. When they are properly interconnected, these groups become the most significant of all our communications systems.

In FAA, they are being interconnected under a variety of thoughtful personnel programs and management policies.

A

Stanley Fukuyama, left, ponders an air traffic problem posed to him by instructor Kenny Nomura during an on-the-job training project in Honolulu ARTCC.

B

The grapevine is both fast and far reaching. What Libby Mansell is hearing that makes her purse her lips during this Anchorage coffee break is really none of management's business. Off-the-cuff exchanges are inevitable, and often they are a sign that employees have more than routine interest in their jobs.

C

When Alan Dean, right, was sworn in by Secretary of Transportation Alan Boyd as Assistant Secretary for Administration, a "link" was made between DOT and the hundreds of work groups and social groups to which Dean has belonged during almost 27 years of public service. In addition to holding the top administrative post in FAA from the time he helped write the FAA Act of 1958, Dean served in the War Department and other Government agencies before his recent elevation. Interagency transfer of civil service career executives is now a government policy. DOT Act fosters the program by specifying that the position Dean now holds will be filled by a career civil servant. FAA's interagency transfers accomplish the same purpose.

D

The experience of Eastern Region in the New York airlift exercise, **Metro Support '66**, is relayed to Western Region Director Joe Tippets and his staff in the best possible way—a face-to-face briefing given by the man who conceived the exercise, Eastern Region Director Oscar Bakke.

E

New procurement procedures had to communicated throughout the Agency. The device for transmission was training. In this first class is a representative from each region and center and appropriate Headquarters offices. Other FAA training programs communicate Agency procedures, know-how, history, objectives, plans, policies and programs to both new employees and veterans.

F

The job of providing authoritative information in Pacific Region's Information Center is the responsibility of Dan Ward, International Aviation Affairs Officer. FAAers on their way to the Far East, plus other aviation officials, receive briefings tailored to their individual needs and available time.

G

Isabelle Evans, with this new console at the WNA flight service station, can see at a glance how many of the flight service specialists are busy briefing pilots. Telephones have broadened contacts between people for spreading both official and unofficial information.

H

In a long list of FAA people who have served in a wide variety of positions in several locations, the Associate Administrator for Programs Arvin O. Basnight stands out. He is shown here at his old desk as Director of Southern Region with two of his staff members who, themselves, exemplify mobility. Jefferson W. Cochran, left, like Basnight has transferred to Washington. W. B. Rucker is chief of SO's Airway Facilities Division after tours in Ft. Worth and Washington. This type of mobility has been instrumental in the development of a large number of key executives and the integration of many activities and organizations.

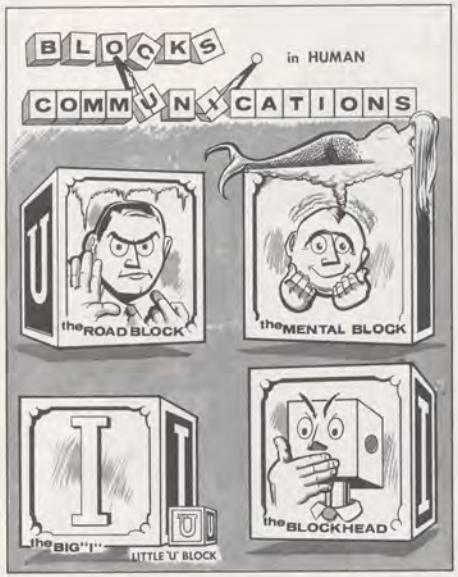
I

Executive officer Robert T. Williams, left, Alaskan Region, finds that a former engineer, Alfred B. Bruck, center, makes a very effective budget officer. Lionel K. Muddefort, Asst. Chief of PT, right, says, "Those of us who have come from a technical career to a management career find our old contacts and know-how very helpful." Cross-training is a wide-ranging agency program.

J

Riveters in Aeronautical Center shops might find it hard to converse over the noise, but like people everywhere, they will talk. The only choice management has is whether the grapevine works for the organization or against it.

COMMUNICATION BARRIERS



"Writers are too lazy!" says Edwin Harris of the Pacific Region.

Harris not only takes a strong stand against lazy writing, but also tries to do something about it. As Chief of Training in Pacific, Harris has established a Plain Letters course to upgrade written correspondence. When requested, his staff will analyze past correspondence in a division or area office then conduct the course for its personnel.

The training zeroes in on the most serious barrier to human communications—language. In an organization as specialized as FAA, there are literally dozens of different languages which cluster around the various specialties. Many words which are perfectly understandable to the skilled electrician are unintelligible to a controller, and vice versa.

The proper level of language for a specific audience can be measured scientifically. But all too often the available techniques are ignored, for the simple reason that the originator of a message has never really figured out the audience he is aiming at. These "special" languages are not the only problems with words.

Gobbledygook is a word invented during World War II to describe the tendency to lend an authoritative ring to many official communications by liberally garnishing them with a variety of "herewiths", "aforementioneds" and similar legal ornaments. These expressions may be calculated to produce awe in the recipient, but hardly understanding.

Another big reason for gobbledygook is a misdirected interest in accuracy. A procedures writer, for example, is likely to try to visualize every possible qualification, exception, and variation and incorporate them all into his instructions. Substantial accuracy that is readable may often get better results than literal accuracy that is incomprehensible.

But language is only a tool of communication. Even more serious blocks in communication can dwell in the sender and the receiver. Here are some of them.

Parochialism. Our own specialized work and the goals with which we identify help determine the frame of reference in which we interpret communications. Our differing grasps of functions distorts our perspective and shrouds the elements of a problem, often preventing us from realizing what should be communicated and why.

Status distance. The story of Haround al Raschid, the caliph who put on beggar's clothes and went out among his people to hear what they really thought, is the story of the isolation of every high status executive. For a number of reasons, pleasant matters are more apt to get communicated upwards than information about mistakes. Hence, things usually look rosier at the top than they really are, whether the top is the tower chief's office or the regional director's headquarters.

Geographical distance. The difficulties of communication at a distance, even with modern means, are several. Telephone conversations, while the closest counterpart to face-to-face conference, is by no means a perfect substitute. Missing are the important overtones of oral communications that are ordinarily conveyed by facial expression and gesture. Letters don't fill the gap either. To communicate in a letter the same material exchanged in a 30-minute conference would require an interchange of six to twelve single-spaced pages. Even then, the letter is much less likely to convey exact ideas than a conversation, where misunderstanding can be detected and corrected immediately, questions raised, and so forth. But the biggest price of geographical distance is the loss of daily personal contact that stimulates conversation.

The supervisory shield. The unwritten work code demanding loyalty to work groups often prevents communication of information that would reflect on one's friends, but often the supervisor has *other* motives. Here are some don'ts of upward communication addressed to supervisors and managers from a railroad newsletter.

Don't try to shield the boss. You lessen your effectiveness as a manager if you try to build a wall around your superior and prevent his hearing anything that will upset him.

Don't use "upward" communications to blow your own horn. Solid accomplishment is your best agent.

Don't try to overprotect yourself. When things go wrong, the wise thing is to make sure your superior has the full story, even if it means admitting mistakes.

Don't think the need to discuss a department problem might just disappear if you don't say anything. This is a matter of judgment. Sometimes it can be all right. But if you decide to postpone action, be sure your decision is based on the merits of the case and not on a wishful hope the problem will solve itself.

Don't be afraid of the results of communicating. Telling the boss about a difficulty may get you the job of eliminating it. That may mean extra work. But a supervisor with management responsibility can't safely rely on the soldier's attitude of "never volunteer."

Don't neglect to communicate because you may not be directly responsible. If you fail to communicate because the idea is "none of my business," you deprive the organization of a portion of your value. Tell your supervisor, if the idea has merit. It's up to him to put it before the right people.

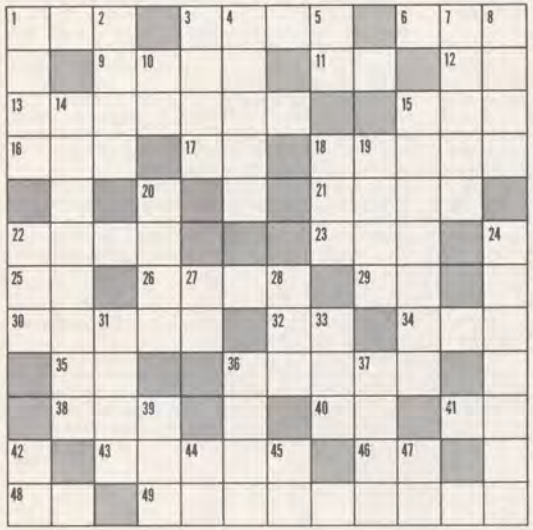
Don't rely on someone else to send the work upstairs. If you pass the buck, the boss may eventually get the information and wonder why you said nothing until it was too late to take action.

Don't think you have to have the solution before you discuss a problem. Suppressing information may not be as considerate as you think. Neither you nor the boss has all the answers, of course, but if you tell him about your problem at the right time, just talking about it may put the matter in different perspective and give both of you fresh ideas.

Edwin Harris, Pacific Region Personnel and Training Chief, supplies the missing ingredient in written communications.

Airman Antics

Designed primarily for pilots, this puzzle is part of a safety education program conducted by Flight Standards Service. How many in your work group, pilots and non-pilots, can work it? For solution, watch INTERCOM.



ACROSS

1. 80/87 Octane
3. Heart of Wing
6. Max. Degrees of Error-Omni Air Check
9. Race Track (Sectional)
11. Right (Abbr.)
12. Restricted Registration (OBS)
13. Right Seat
15. Pellet Size (Variometer)
16. Color
17. Total Time (Abbr.)
18. Special Flight Permit
21. Leave Out
22. Alphabet Letter—Phonetic (WW2)
23. Cockpit Lights—IFR/NIGHT
25. Negative
26. Compass Compensation Area
29. Trailing Edge (Abbr.)
30. FAA District Offices
32. All Right
34. A Thing
35. Restricted Zone (Abbr.)
36. MPH x 0.86898
38. Dig—Past Tense
40. Sweep Angle (Abbr.)
41. FAA Office (Abbr.)
43. Popular Low-Level Pilot
46. Cross Country
48. Drop Zone (Abbr.)
49. Pilot Chore

DOWN

1. Black Exhaust, Mixture Too ----------.
2. Fabric Cover
3. Aluminum Enemy
4. Determines Course
5. Navigational Aid (Abbr.)
7. Type Gas
8. Inspection Tool
10. Roman Numeral
14. Away From Centerline
15. Aids in Starting Engines (PI)
18. Foreign Object Damage (Abbr.)
19. Communicate
20. Rebuilt Engine Time
22. U. S. Air Arm (Abbr.)
24. Rigging Term
27. Chain of Hills
28. Division of Time
31. Fastener
33. Distance Measure (Foreign)
36. Airborne Device
37. Aircraft Movement
39. Space Between Wings (Bi-Plane)
42. Unsafe Aircraft Condition Alert (Abbr.)
44. Negative Report (Abbr.)
45. Military Force (Abbr.)
47. Important to Pilot (Abbr.)

book blips

Selected new library acquisitions for professional reading. Check your local FAA library for these aids to professional development.

Gobbledygook Has Gotta Go. John O'Hayre. The author has presented a collection of essays which illustrate the many flaws in government writing. The examples of these flaws are accompanied by humorous illustrations. (Bureau of Land Management, Washington, G.P.O., 1966. 113p.)

Management Communication on Controversial Isssues. C. J. Dover. The author proposes that management learn to communicate more effectively on controversial issues ("zone of management silence"), especially the areas of employee-management relations (unions, automation, pay, legislation, etc.). It is in these areas that managers are usually least communicative with both employees and the public. Two case histories on management communications are given. (Washington, Bureau of National Affairs, Inc., 1965. 310p.)

Practical Guide to Conference Leadership. John S. Morgan. This guide to more effective and productive conferences even tells when NOT to hold a meeting. The author emphasizes the psychology of leadership is sparking enthusiasm, team work, and creativity in participants. This book shows how to prepare a conference in advance, how to keep it on target, and how to use words that persuade and inspire rather than mislead or misinform. (N. Y., McGraw-Hill, 1966. 292p.)

Reader in Public Opinion and Communications. Bernard Berelson and Morris Janowitz, editors. The editors have assembled a collection of essays representing the major streams of interest and modes of thought now active in the field of communications. For each of the following categories three or more essays by various authors have been selected: theory of public opinion, formation of public opinion, impact of public opinion on public policy, theory of communication, communication media, communication content, communication audiences, communication effects, public opinion / communication / democratic objectives, comparative analysis, and research methods in communication. (N. Y., The Free Press, 1966. 788p.)

Written Communications for Business Administrators. Robert D. Hay. "The more effective a person's ability to communicate, the more effective his administrative ability. The recognition of this basic principle in the development of sound managment is the primary reason for the preparation of this book" (author). Part I is concerned primarily with the business letter as a form of communication; Part II offers suggestions in report writing, presentation of graphic data, organization of staff-study reports and oral presentation of data; Part III emphasizes principles of employer-employee communication. (N. Y., Holt, Rinehart and Winston, Inc., 1965. 487p.)—prepared by HQ Library Staff.

"I can't pull this little red wagon all by myself. It takes a lot of people, and I need all the help I can get."

Administrator McKee often cites the above quote from his World War II boss, General H. H. "Hap" Arnold, to illustrate his dependence on teamwork to achieve clearly stated goals. Clearly implied was the necessity of good communication. Both he and Secretary of Transportation Alan Boyd, left, are strong believers in straight talk. In a recent conference of region and center directors, McKee made improved communications the central theme.

This was his terse observation:

"Eyeball to eyeball contact, stating the facts on both sides, making an honest attempt to reach a decision or reach agreement, trying to make as much sense as we can to the 200 million 'stockholders' to whom we report, will do more to clear the air and speed things up—and do more to get the right answers—than anything I know."

Research in the field of human communications bears him out. The theory of three-way communications—up, down, and horizontal—is an oversimplification, most observers agree. It has been said that **"communication travels like a piece of driftwood on a sea of conflicting currents. The amount and direction of movement is not aimless, nor unidirectional, but in response to all the forces—winds, tides and currents—which come into play."**

The complex, personal motivational drives of individual human beings are the forces which direct the course of human communications.

The best communicators are not necessarily the people with the best media, the most complete "systems", or even those who have "a way with words." It's something more fundamental. **Psychological studies indicate that people tend to talk freely to those who can make them feel more secure and gratify their needs, and away from those who threaten them, make them feel anxious, and generally provide unrewarding experiences.** The degree of glibness, authority or expertise is beside the point. Credibility and mutual understanding are the keystones. The Administrator sums this up with—

"We should learn to put ourselves in the other man's seat and see what the problem looks like from his vantage point. Then, and only then, can we effectively communicate our ideas."

Circled area is the small avalanche that killed Norvill Fleetwood last year as he plowed an access road to Boise ARSR. The small dot is the exhaust stack of the snow cat Fleetwood was operating.

how not to be ↓↓↓↓↓↓↓↓↓

buried alive

Death and destruction are poised delicately on steep ridges edging the twisting roads to FAA mountaintop radar sites.

Potential avalanches, triggered by heavy snowstorms or quick spring thaws, can choke off access to these radar sites for days or even weeks.

Even the huge rotary snowplows, capable of stripping 2,200 tons of snow an hour, are helpless under avalanche conditions.

In Western Region, where 450 miles out of a total of 900 miles of FAA-maintained roads are avalanche threatened, something had to be done.

The expertise of the Forest Service has been tapped to train FAA employees on the special techniques for dealing with snow. Especially trained FAA people carry specific responsibility for coping with snow control problems in the threatened areas. From the Salt Lake City area, James R. Houghton carries the responsibility for Idaho, Utah and Nevada. John Heithaus, operating from Denver, covers Colorado and Wyoming.

The school and the snow removal operations program are the brainchild of Wayne Pry, Western Region civil engineer.

Those who work at the high sites have been taught to be wary of snow-covered slopes. The memory of an FAA employee, killed in 1965 when a wall of snow swept over him on an access road, gives special meaning to the training.

Now they use wind and snow gauges to analyze snow conditions. When the clues suggest an impending avalanche, they know how to make a "frontal assault." Dangerous snow accumulations are literally blasted off mountain slopes with Army howitzers.

When preventive measures fail, special rescue techniques taught at the school are brought into play.

"We buried a dummy under the snow and assigned crews to find it," Pry reported. "They dug it out within 20 minutes with the help of special light-weight snow probes and the procedures taught by Forest Service experts."

Rescue caches, which include probe poles, nylon ropes, snow shovels, electric headlamps, first aid kits and toboggans, are placed at strategic locations along access roads.

All these preparations haven't solved the avalanche threat, but now the snow-covered slopes are recognized as potential threats—and FAA people treat them accordingly.

How to stay alive on roads to mountaintop sites like this one to Francis Peak, Utah, is the main point of a school operated by Western Region. Avalanches, especially the small ones which happen suddenly, are the most feared of the many winter hazards.

After being "rescued," dummy (above left) is evacuated on toboggan by Ashton, Idaho, FAAers, from left, Dwain Baxter, George Warren, Robert R. Rue, Earl A. Batchelor and John M. Stevens. Compressed air gun (left) used to knock down avalanches is demonstrated by Ed Stillman of Forest Service. Over-snow vehicle (above) on treacherous road to Medicine Mountain radar site. Snow cat (right) buried by Avalanche at Douglas Pass, Colo.

Difficult Engines Changed Immediately

Impossible Ones Take Longer

So our C-123 could keep that extra boost, the Aircraft Services Base turned to design.

When the wingtip jet-pods of the Agency's C-123 needed replacement, the Aeronautical Center got more than a maintenance problem.

The fact that the plane was stationed in Alaska was of no concern to the Oklahoma City Aircraft Services Engineering base. That outfit is used to dealing with far-ranging planes, whether in its own shops or at a foreign base.

This C-123 had J-44 jet engines on its wingtips to supplement its normal piston-powered props during takeoff and short periods of cruise. At replacement time, the J-44s were out of production and a substitute had to be found. This meant finding a production engine which would give the C-123 about the same performance, installing it with a minimum of structural modifications, using as many existing parts as possible, and doing all this without shifting the center of gravity or increasing structural and aerodynamic loads.

When the engine choice was made in favor of the J-69 (used in the T-37 Air Force jet trainer) the design problems were handed to Richard E. Determan and Robert D. Salmons. Fifty designs and 20 blueprints later, the engineers selected and procured 128 "off the shelf" parts and accessories—and tests began.

After a prototype pod engine was completed in the shops and tested with good results, Determan turned to the paper work part of the project. Test procedures had to be written, installation schedules worked out, maintenance manuals changed, installation procedures prepared and all assemblies and equipment shipped to Alaska.

The installation was completed in Alaska with the help of M. E. Powell and Clyde Johnson with their teams in the Aircraft Services Branch and the Aircraft and Avionics Maintenance Section.

On September 3 (the design was initiated in February 1966) the Oklahoma crew was on its way home after the "123" was successfully test flown by pilot Jack T. Jefford of Alaska's Air Support Branch.

Jet-pod on C-123 (below) during run-up, and the two engineers, Determan and Salmons, (right) who worked out the problems. Sheetmetal worker Norman Nethkin (top) was one of many shop people on the project.

"Bush pilot" Jack T. Jefford, who has become famous hauling FAA equipment to Alaskan wilderness, was snapped during flight test of newly equipped C-123. Installation of the engine (below) is made by, from left, Richard C. Hall, Dustin Sloan and Kenneth Tenpenny.

MARS MAN LINKS VIETNAM SERVICEMEN WITH KIN

Palmdale, Calif. — Our man from MARS is Guy Shattuck.

Five nights a week, from 6 to 9 p.m., Guy foresakes other pastimes to sit in a green swivel chair before the radio-teletype here in his Palmdale, Calif., home.

He's one of 14,000 volunteer "ham" radio operators who have forged a vital communications link between overseas servicemen and their families through the Military Affiliated Radio System (MARS).

Last year more than 52,000 such messages were relayed by MARS men.

"MARS service is made available at no cost to families of servicemen. The only limitation is 25 words per message," Shattuck said.

Shattuck's messages go out via a home-built radio-teletype. He has built three such radio teletype units at a personal cost of some $1,500.

He has transmitted some 2,000 messages to and from Viet Nam since Sept. 1 of last year. Prior to that Shattuck relayed several hundred voice messages.

Mars Man Shattuck spends five evenings each week relaying messages between servicemen in Vietnam and their families.

tech talk

A flight test program, started last July, has brought supersonic airborne weather-detection radar a step nearer reality. Spurred by the need for an airborne radar system compatible with the speed of the supersonic transport, a project was established to measure the capability of the "X" band system against a list of predetermined characteristics.

Using a Convair 880 with a modified RDR-1C radar, inflight-radar data was recorded on film and compared with that received on a WSR-57 ground station at the National Severe Storms Laboratory, Norman, Okla. It surpassed design characteristics by detecting a 3-mile wide storm cell at 250 nautical miles. The rainfall rate was only two inches an hour. One cell with a rainfall rate of less than 0.1 inches per hour was detected at 300 nautical miles.

Comparison photographs of scopes on the airborne and the ground system show that this *first* objective of the test was achieved.

Another objective, to see whether the higher performance of the "X" band system would prevent hazardous cells being obscured by precipitation, was only partially achieved.

The basic question—whether this radar is operationally satisfactory for the SST —remains unanswered. The beam-width —100,000 feet at 300 miles—provides no height discrimination.

Without height information every storm would pose a problem even though some might be more than 20,000 feet from flight altitude. The beam-width could be sharpened with shorter wavelength, says James H. Munsey, project officer, but this would require complexity which, so far, has prevented manufacture for commercial use.

Ground Based Radar

"X" Band Airborne

it happened this month

These aerospace events happened during the month of March since 1903.

March 23, 1903—First Wright Brothers' airplane patent, based on their 1902 glider, was filed.

March 31, 1909—The first air marking on record took place when Amherst College in Amherst, Mass., put its name in 35-foot letters on its main building.

March 3, 1915—The National Advisory Committee for Aeronautics was created to supervise and direct the scientific study of flight problems and relate practical solutions.

March 15, 1915—World-famous stunt flyer Lincoln Beachey was killed when the wings of his plane separated from the fuselage as he pulled out of a dive at the San Francisco Exposition.

March 24, 1939—Jacqueline Cochran set the women's national altitude record of 30,052.43 feet over Palm Springs, Calif., in Beechcraft plane.

March 26, 1940—U. S. commercial airlines completed a year of flying with no fatal accidents or serious injuries to passengers or crewmembers.

March 8, 1946—CAA granted first commercial helicopter license—NC-1H— for Bell Model 47 two-place helicopter.

March 2, 1949—The first non-stop, round-the-world flight in history was completed by Captain James Gallagher piloting a USAF Boeing B-50. The trip took 94 hours, 1 minute and covered 23,452 miles with refueling in the air over the Azores, Arabia, the Philippines and Hawaii.

March 8, 1949—New world distance record for light planes, 4,957 miles in 36 hours, from Honolulu to Teterboro, N. J., was set by W. P. Odom in Beechcraft Bonanza.

March 7, 1954—Northwest Orient Airlines established a transpacific speed record for commercial aircraft—5,000-mile flight, between Tokyo and Seattle, in 16 hours and 18 minutes.

March 11, 1957—A Boeing 707 jet transport flew 2,335 miles from Seattle to Washington, D. C., in 3 hours and 48 minutes with 42 passengers and 10 crewmembers. This established a record for transcontinental passenger flight.

March 31, 1959—British Overseas Airways Corporation inaugurated first round-the-world jet airline service with flight from London to New York.

March 21, 1962—A bear became the first living creature to be ejected from a supersonic aircraft, landed unharmed 7 minutes and 49 seconds later.

people in focus

Controlling hair is a switch for air traffic controller Frank Prunesti, but he agrees wholeheartedly with the biblical sage who said that a woman's hair is her glory. As the only hair stylist on Wake Island, he still finds time for his best clients, his wife Ruby and five daughters.

A flying schoolbus, a Piper **Tripacer,** enables Michael Forrester, left, and Silas Shannon Jr. to attend Anchorage Community College regularly even though a three-mile stretch of water lies between the college and their duty station on Fire Island. Station administrator Forrester bought the **Tripacer** and EMT Shannon shares expenses for the 15-minute flights.

Hawaiian farewell for retiring Commander of the Pacific Air Force General Hunter Harris included a flyover at Hickam AFB for the 35-year veteran whose operations are closely supported by FAA's Pacific Region.

Red Hot Scout Joel R. Caudle, right, is recognized by Wake Area Manager George La Caille for his support of the Boy Scout Aloha Council of Honolulu. Caudle is Asst. Area Manager, Wake.

The first floating ground school, aboard the Navy destroyer U.S.S. Koiner, has been approved by the Honolulu GADO. Fifteen members of the crew attend ground school conducted by Lt. (jg) Frederick Kass. George Reece, GADO chief, says flight training will follow for most of them at Agana Naval Air Station, Guam, after extended cruises that can last as long as nine months.

Archie League, FAA Director of Air Traffic Service, visited Alaska recently where his name was made famous by his goldminer father, Archie League. He is welcomed by AL Director George Gary, left and Herbert H. Stanley, AT chief in Alaska.

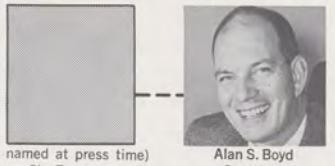
A view of Rio de Janeiro, like this one (left) from FAA's International Field Office, is only one of the many attractions of Rio duty for the Rio IFO staff, from left, Joaquim P. dos Santos, Richard S. Beckley, Marie M. Chahbazian and Ward K. Cadwalader.

Ft. Worth ARTC operations are seen first hand by the men who watch Uncle's purse strings. Henry L. Newman, Southwest Region Director, right, escorts visitors, from left, Comptroller General of the U. S. Elmer B. Staats, Chief W. V. Fox, W. H. Sheley Jr., Regional Manager of the General Audit Office in Dallas, and Newman.

Houston Center's second award for architectural excellence was presented by the Houston chapter of the American Institute of Architecture. Examining the plaque, above, which was presented to Center architects Coleman & Rolfe and George Pierce-Abel B. Pierce, are Southwest Region Director Henry L. Newman, right, and Houston Area Manager William E. Peterson.

Snow Mobiles, the current sports rage in Alaska, would seem to put sled dogs out of work, but this Husky, Toby, doesn't seem to mind that his owner, Elmer Brisbois, now "mushes" by motor. Brisbois, instructor at the Anchorage Center RAPCON, is president of the Anchorage Motor Mushers Club, a position from which he stresses safety tips.

Department of Transportation



(not named at press time)
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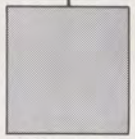

(not named at press time) Asst. Sec. for
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Alan L. Dean
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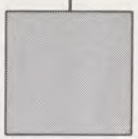

(not named at press time) Federal
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Dev. Corp.

Dr. William Haddon Jr.
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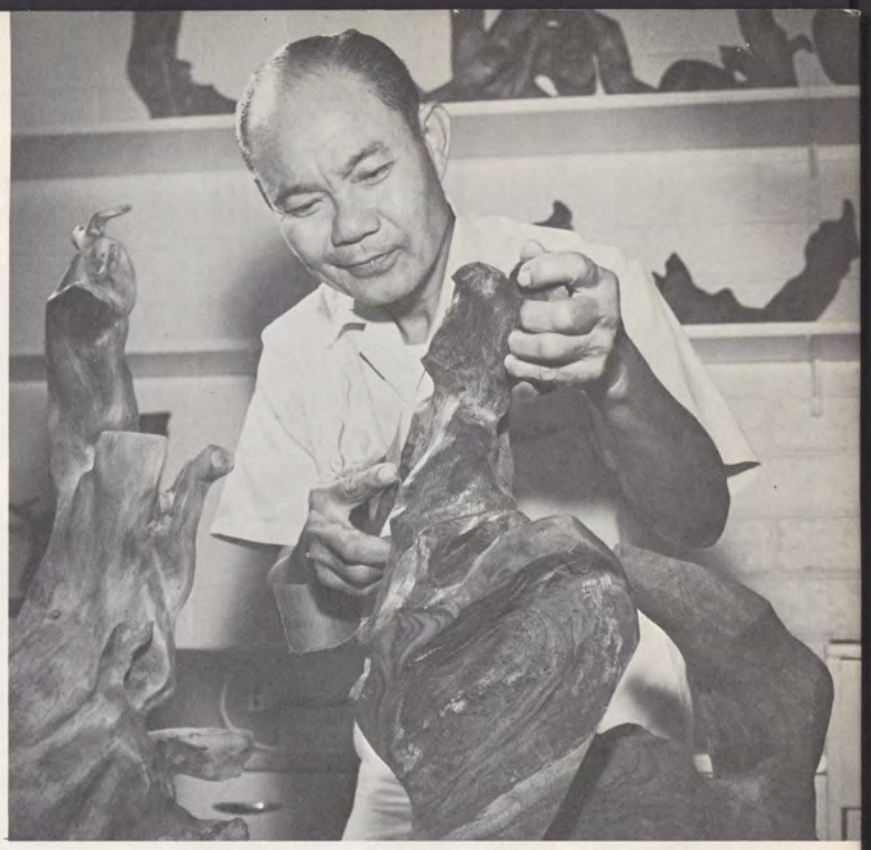
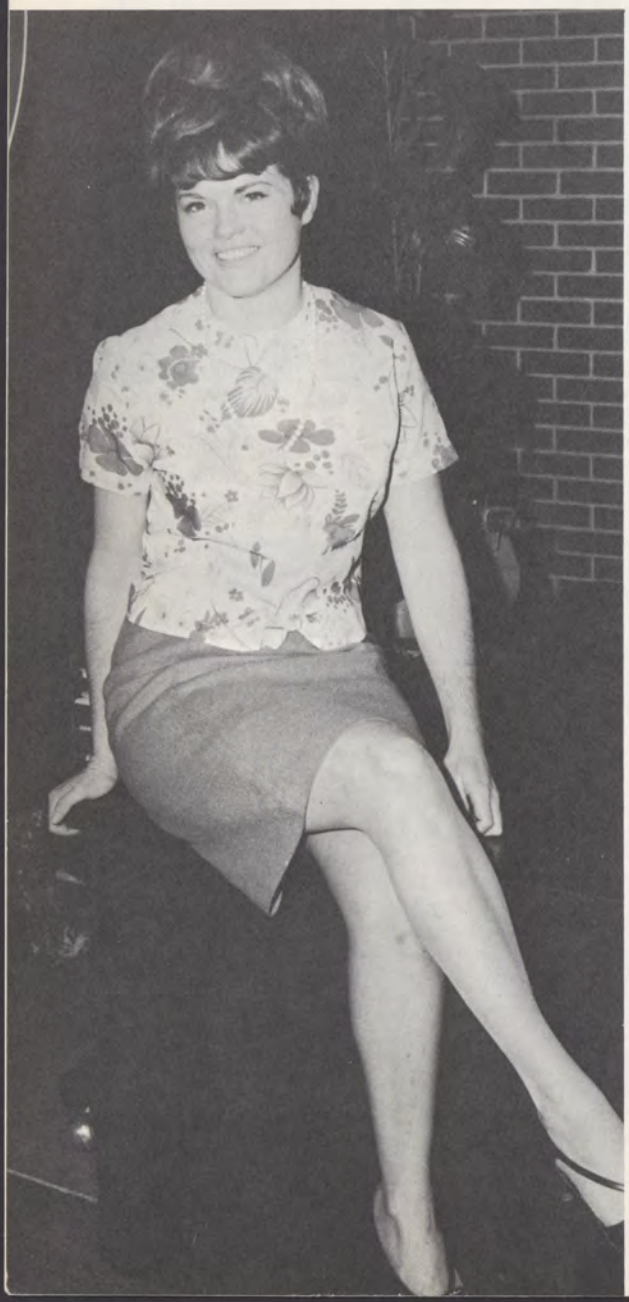


after hours

Angel Bigornia

A touch of the craftsman's magic and worthless, weatherbeaten, dry tree roots are transformed into fascinating works of art. Angel Bigornia is the craftsman. He has been with FAA's Pacific Region for more than eight years, first at Canton Island and now at Wake. Angel has found Wake bountiful in driftwood, his basic material for this unique after hours sculpting. His tools consist of an electrical hand grinder, sand paper, and ordinary brown shoe polish, which he uses to accent rich wood grains. Angel has completed over 60 carvings to date.



Diane Visick

This pretty, perky face greets visitors and personnel at the Salt Lake City Area Office. Diane Visick, 27, has been serving as the Area Office's receptionist for over 18 months. Diane has spent four years in the U. S. Air Force and is now serving as yeoman second class with the Navy Reserve. Her hobbies include horseback riding, rifle marksmanship, hunting, fishing, camping, and oil painting. She also plays the violin and lends her voice to the Salt Lake City Symphonic Choir. In her spare time, she teaches ballroom dancing.

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