FAA HORIZONS

AUGUST 1964

OFFICIAL EMPLOYEE PUBLICATION OF THE FEDERAL AVIATION AGENCY

EDITORIAL:

On The Way Up?

If there were as many rungs on the ladder of success as there are formulas for climbing it, nobody would ever get very far. Fortunately the proverbial ladder is quite accessible for members of the FAA family because the Agency needs and appreciates people who are on the way up.

Courage is to hard work and success what ladder rungs are to uprights and bolts. Without courage it's often impossible to step in the right direction. Let's consider a few "for instances."

• When the acid test of courage is applied to some of our actions they often take on a different color. The manager who takes the easy way out—like transferring his personnel problems somewhere else—is anything but courageous and certainly is not loyal to the best interests of the FAA. Conversely, are you willing to part with "good" employees when you know it would be in the Agency's best interests to do so?

• The man or woman, at whatever level, who "plays it safe" by riding the fence or making sure that the boss hears or sees only what he or she thinks the boss wants to hear or see is certainly not acting courageously. Do you match loyalty with enough courage to be honest with the boss?

• Not much can be accomplished by an employee at any level who denies the Agency the benefit of his experience because he is afraid that his ideas or opinions may not be welcome or accepted. How insistant are you in injecting the benefit of your experience when you know that it would be easier to let something just slip through?

• In any decision making process, there comes a time when all arguments have been heard and the boss must make a decision . Now you are faced with the problem of implementing the boss' decision with vigor and enthusiasm—as if the idea were your own. Do you have the courage to do this?

If we check out pretty well in the matter of courage in relation to our daily work, chances are that we are doing pretty well. But, how do we stack up when FAA's needs require a little courage to make our personal situation compatible with those needs?

• Even though most of us recognize that things generally work out rather well in the long run, how courageous are we when it seems easier to stay put? How often have we accepted or requested reassignment when it was more in FAA's interest than it was to our own immediate benefit?

• Even if once in a while we have been willing to move geographically most of us are prone to shun a change in career fields. But, it's even worse to accept a change in career fields or switch from technical to management duties without any intention or effort to really change our ways of thinking and doing. How does your willingness to change stack up with the Agency's needs? If you have made a change have you been willing to go all the way instead of dragging when you ought to be pushing?

Affirmative answers to the above questions should satisfy us that we have enough courage to climb ladders. Negative answers can only lead to one direction and it isn't up.

If you are on your way up, or hope to be, make it a habit to let courage take over whenever it might be *easier* to do other than what you think is right, or whenever it might appear *safer* to do other than what you know should be done.

Robert I. Gale, Director
Pacific Region

Robert I. Gale

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FEDERAL AVIATION AGENCY

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Symbolic of the Central Altitude Reservation Facility's mission, this graphic representation shows CARF as the key center for processing military and other altitude reservation requests. CARF provides the best possible service to the users consistent with the most efficient use of airspace.
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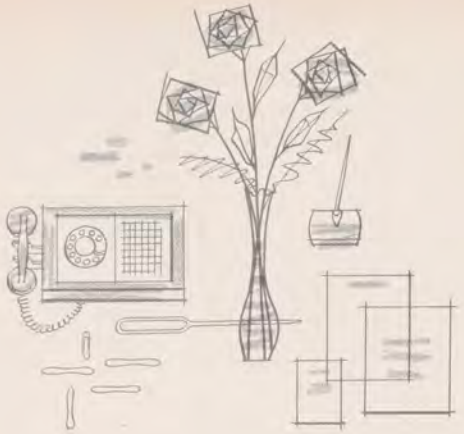


EA's Distaff Side

Skillful & Versatile

LADIES LEND GRACE AND TALENT TO THEIR JOBS

From left, Baron J. d'Adolf, Chief, Program Coordination Section, Rosalind Halpern, airways engineer and Edwin Simon, airways engineer, discuss new tower plans.

The old adage "It's a man's world" has been punctured with regularity during the past two decades by many thousands of women who unhesitatingly ventured forth to refute it. The famed adage received its *coup de grace* recently when President Johnson issued his now famous statements that "When we fail to utilize womanpower we are ignoring a major national resource," and that "Brains and skill come in all types of packages."

Today 36 per cent of all women in the U. S. are of working age. They constittue one-third of the total U. S. work force—23 million strong. Significantly, that female work force is not limited to traditional job categories; women can be found in every one of the 479 individual occupations listed in the census.

The 1960 census showed 431 female geologists geophysicists, and 18,634 female bus drivers. The largest concentration—seven million—is in the clerical field. Three other groups, service workers, factory operators, and professional and technical employees, number about three and three-quarter million each.

Recent Developments

In July 1962, Federal agencies were instructed by Presidential directive to make all selections for appointments, advancement, and training in the Federal service without regard to sex, except in unusual circumstances which could be justified by the Civil Service Commission. A few months later an even stronger directive from the President to Federal agencies further enlarged the number of jobs for which women should be considered.

The President's Commission on The Status of Women, through an exhaustive series of studies, recently completed a compilation of firm data on many phases of women's employment. As a result of its findings, now available to personnel directors throught the U. S., the Commission recommended that the U. S. Employment Service refer people for jobs on the basis of their qualifications and/or merit. The Commission also requested employers using the Service to avoid job orders specifying sex, except where genuinely warranted.

Miss Maxine Walker was recently given credit for a "flight save" at Byrd Field, Va., where she is employed as an FAA air traffic control specialist.

Visiting FAA tower personnel at John F. Kennedy International Airport, Anne Rubino, supervisory placement specialist, chats with controller Eugene Bryant Jr.

FAA Moves Ahead

FAA's tally of professional women has risen sharply in the past few years. Women hold responsible positions in budget, personnel and training, air traffic control, management analysis, biochemistry, library science, engineering, pharmacology, accounting, public information and contract procurement. Specifically, of the 5,952 employed in the Agency, over 1,000 are in responsible jobs at the GS-7 level and above; 112 are in grades 12 to 15; four are in GS-15. The Deputy Manager of the Office of Headquarters Operations is a woman. In the past year a woman attorney was appointed to a position in the Office of General Counsel; a woman was recently named Chief of the Airways Programs Division in the Budget Office; a woman has been promoted to Compliance and Security Officer, and women college graduates have become management interns.

In the Eastern Region 18 women are in grades GS-11 and above, including 10 air traffic control specialists, a mechanical engineer, a budget analyst, a management staff officer and a supervisory operations accountant. The Chief of the Placement Branch is a woman as are three position classification specialists.

Many have stated that challenge is the motivating force behind a woman's desire to work in this man's world. Others claim it is a natural form of progression that started with the industrial revolution. Still others claim that women are competitive by nature, and are merely asserting their prerogatives *and* abilities by daily crossing the now battered line that formerly separated them from man's dominion.

Of course, no small stimulus is the equal pay and opportunity for advancement now recommended by the President's Committee on The Status of Women, and the Civil Service Commission.

Miss Maxine Walker, an air traffic control specialist at Byrd Field, Richmond, Va., and a veteran pilot, sums up reasons for choosing her career in FAA: "Controlling air traffic is the next thing to flying, for much of the time I'm up there alongside the pilot as he fits into the approach or landing pattern, or finds himself a little unsure of his position. I've been at Byrd Field for five years and hope to stay a few more as this is a very rewarding as well as exacting profession."

Miss Walker was recently credited with a "flight save" that involved "talking down" a stricken pilot and having emergency equipment awaiting his safe landing.

In addition to being a traffic controller and pilot Miss Walker is a qualified flight, instrument, and ground school instructor.

EA airways engineer Rosalind Halpern can often be found among a maze of electronic gadgetry in the equipment and operations room, or checking and plotting installations on aeronautical charts. Rosalind finds wide diversity in her work, an ample amount of travel and frequent high-level conferences with representatives of municipal governments, the military services and the aviation industry.

Accountant Elizabeth C. Stier, recipient of a Benjamin Franklin University Bachelor of Commercial Science degree *cum laude* works as Chief of the General Ledger and Reports Section. She finds her work of preparing the region's financial management reports and analyzing and developing spending trends for management review absorbing and satisfying.

Alpha Biewer, veteran of 20 year's experience with CAA/

Pre-flight check of flying conditions in Washington area is given to pilot Thomas Raymond by Martha Hesse, specialist at D.C.'s Flight Service Station.

Dorothy Erb (above), a personnel and training classification Specialist, makes sure that a position description is accurate.

Flight service specialist Isabelle Evans checks teletype reports at Washington Flight Service Station with teletype coordinator Donald Schmidt.

FAA prepares the budget for 58 flight service stations in the 15 northeastern states. She also selects qualified flight service specialists to man the stations. A former watch supervisor at the New York FSS, Alpha states that the most interesting part of her job is providing the hard-pressed man in the field with the proper tools to do his job.

Vera Ganio, EA's Placement Branch Chief, supervises 27 to 30 placement specialists and supporting clerical aides. Vera's prime responsibilities are recruitment and replacement, although she also administers various employee and "special interest" programs. According to Vera, "All aspects of government work are interesting; perhaps the most interesting to me is meeting the dynamic people associated with the aviation community, from agency personnel to airline and industry executives."

Supervisory placement specialist Anne Rubino's work is generally representative of EA's placement services. She deals with the personnel needs of the Air Traffic Division, the Aviation Medical Division, the Community Affairs Office, the Defense Readiness Office, and the Legal Division. Her work frequently requires trips to the field, and interviewing tower, center, and facility chief is a part of her regular routine. A tireless and dedicated employee, Anne's greatest pleasure is the "daily personal contact with Agency personnel."

Regardless of the reasons that motivate women to seek careers in government, one fact is outstanding: women, though they come "in all types of packages" are taking giant strides in the working world. The nation's greatest employer has given them a vote of confidence through the Office of the President, and on the basis of firmly established data, now encourages their employment in most professional and technical fields.

Women, on the other hand, have taken naturally to the challenge and stimulus provided by exacting assignments in the business world. The past two decades has proved their mettle, and you can look forward to even greater inroads being made on that once placid—and exclusive—field where careers were "for men only."

General Ledger and Reports Section Chief Elizabeth Stier explains complex factors to branch accountants (from left) John Gilmartin, Harry Halm and Gerald Higgins.

Jack T. Jefford, Gerald Bishop airlifted 104 from Aniak. Right: USAF 'copter from Elmendorf AFB hovers above Aniak Station commissary, isolated by the flood.

ALASKAN RIVERS ON RAMPAGE

Writing to a friend about the survivability of the infant American Republic in 1789, Benjamin Franklin commented ". . . in this world nothing is certain but death and taxes."

Had Franklin known anything about Alaska he could have added a third to life's certainties—the annual spring flooding of the Kuskokwin, Yukon and Nenana Rivers.

When the mercury starts to climb, Alaska's rivers, choked with ice and debris, and brimming with melting snow runoff from Alaska's mountain ranges, leap their banks, flood vast areas and strew great blocks of ice in grotesque patterns across the landscape.

The 1964 edition of the breakup ran true to form. On Sunday, May 31, after a two week hot spell in the interior, the breakup came with a rush, sending water and ice floes on a rampage through towns and villages with such hard-to-pronounce names as Akiak, Koyukuk, Akiachuk and Napaiskak, and forced aerial evacuation of some residents.

Personnel at FAA stations at Aniak, Bethel, Fort Yukon, Galena, McGrath, Nenana and Tanana had planned well in advance and were ready for the onslaught this year. Gena A. West of the Systems Maintenance Division was designated emergency coordinator. His assistants were Ralph Westover, Ted R. Young, Raymond R. Rivers, Clifford F. Uzzell and Jack T. Jefford. Until the emergency was over, affected stations were required to submit daily flood reports to West through the Regional Communications Control Center.

One of the first calls for help came from Station Manager Albert Burnham at Aniak. He requested air evacuation of his personnel and families when flood water completely inundated both station and runway, except for one small dry spot around the commissary. Jack Jefford and Gerald W. Bishop were dispatched to Aniak in N-5, an Agency DC-3, and evacuated 104 persons, many from surrounding villages. One native's life—a youngster suffering convulsions—was saved in the airlift, according to doctors who treated the child at Bethel.

Marion J. Figley, Station Manager at McGrath, considered evacuation when the Kuskokwim River overran one runway and licked at the foundations of a warehouse and homes in the living area.

Fortunately, a team of Army engineers using 6,000 pounds of TNT was able to release the huge ice jams in the river below the town and the waters receded. This eased the flood conditions at the station.

From Bethel, Station Manager Darell G. Bricker reported that the station (located on high ground) was safe, but that the town itself was flooded. A bomber crew flying a Navy P2V from the Kodiak Naval Air Station dropped six 500-pound bombs on ice jams below Bethel and the river ran freely.

Wherever the rivers were seriously jammed, Army engineers targeted the barriers with colored dye for the Navy and Air Force to bomb, saving large areas from major damage.

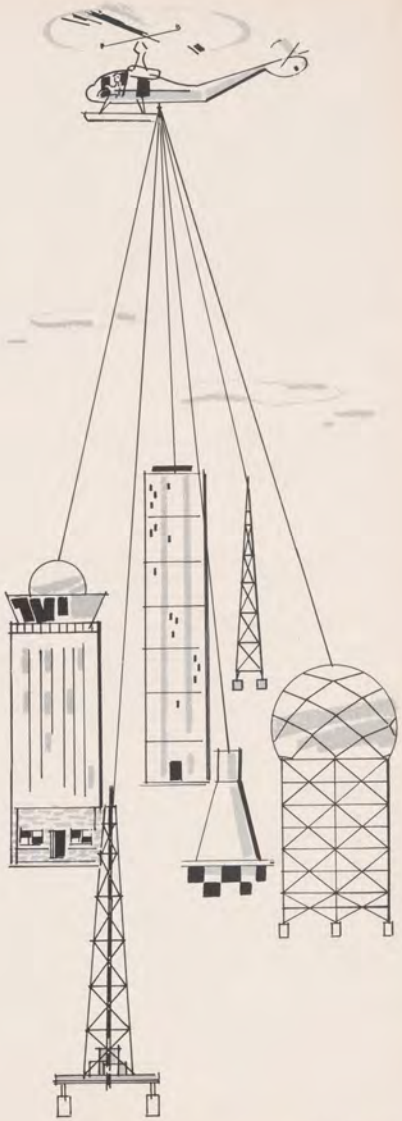
Galena reported no flooding difficulties thanks to an unusual dam constructed last year by the Air Force from 35,000 cubic yards of rock and 18,000 used oil drums filled with sand. It held back the flood waters but took a severe battering from boulder-size ice chunks.

At Fort Yukon, overflowing of the Yukon River eroded the VOR pad. The facility had to be shut down and electronic equipment evacuated to higher ground. Elsewhere, at Tanana and Nenana, the dikes held and the stations were spared their annual dunking.

By mid-June, all stations reported that river levels were nearly back to normal, and the big job of cleanup was underway. The VOR at Fort Yukon was the only FAA casualty of the big breakup of 1964.

'COPTERS

Southwest's Aerial Freighters



Passenger carrier, police patrol, rescue vehicle, ambulance, agricultural implement and industrial tool—these are some of the roles played by today's helicopter, the modern "workhorse of the air."

Examples of its versatility and all-around usefulness are to be found throughout the Southwest Region, particularly in the bayou and Gulf areas where oil exploration and development is big. Here new paths are beaten daily as the helicopter operates over swamps and Gulf waters carrying a varied cargo from seismic crews and equipment to well-drilling and oil producing machinery. Then, as a flying crane, it becomes useful in the actual construction work. When laying pipelines, the helicopter travels freely over rugged areas with men and material, cutting time to a fraction and cost to a minimum.

Part 133 Helps

A recent issuance of the Federal Aviation Regulations, Part 133, which became effective last May 7, is designed to help the commercial helicopter operator obtain maximum use of his craft. "It permits him to carry external loads (i.e. by hoist or sling) for "compensation and hire," a type of work restricted in the past to company-owned craft. To remain within the letter of the older regulation, many helicopter operators leased their equipment to business groups, a practice that is no longer necessary.

Specifically, Part 133 prescribes airworthiness standards, certification and operating rules for helicopters carrying external loads within the United States. It also covers pilot qualifications, experience and operating limitations.

"These new regulations are made to order for us," said C. L. Tysdal, vice president of operations and maintenance for Petroleum Helicopters.

Supplies are moved quickly to remote area by helicopter using external slingload. 'Copter's accurate placement (right) of sections helps build tower in 30 minutes.

Supervising inspector Olin K. Haley (right) presents Petroleum's chief pilot Stan Clay first certificate issued in SW under Part 133.

Principal operations inspector Richard F. Scholtz (above) watches one of the demonstrations which was required for Petroleum's certification. Left, Principal Maintenance Inspector Frank Nolden and C. L. Tysdal discuss Part 133.

Tysdal was referring to his company's 57 Louisiana-based "choppers" reputed to be the world's largest commercial helicopter fleet, doing contract work in various parts of the United States and several foreign countries. Petroleum exemplifies the expanded use of the helicopter since the end of WW II. Starting operations in 1949, business mushroomed as the oil industry began to realize the potentialities of this ungainly looking aircraft for off-shore explorations and subsequent heavy production. The oil industry also was quick to recognize the exception ability of helicopters to lift, lower, tow, or carry heavy loads, and began using them in a multitude of ways. The rugged swamp areas of Louisiana were good proving grounds, and the 'copter never failed a test. As one successful operation led to another the helicopter was constantly put to new uses until today work considered difficult, or impossible to perform by other means has become routine for the whirlybird.

Companies Have Fleets

Several large industrial companies in the Southwest operate their own 'copter fleets; notably, the California Company which has 12 at its New Orleans base.

Petroleum Helicopters points to its own success as testimony that 'copters can do many jobs better than fixed wing aircraft. Surveying is one. Pipeline patrol is another. A patrol pilot can cover an average of 170 miles a day flying low and slow over all types of terrain, and in marginal weather, looking for leaks and future trouble spots.

Whipping the logistics problems of pipeline construction, the helicopter ignores swamps and heavily forested areas to transport pipe joints to distant construction sites. Pipes with joints weighing 3,700 pounds each can be strung at the rate of more than 100 a day.

Isolated construction fields are almost exclusive territory for the helicopter. Here again, displaying its versatility, the 'copter takes to heavy work, lifting, transporting and finally placing machinery and structures on target with great accuracy. As an aerial crane, it transports and holds in place prepackaged sections of transmission towers while construction crews secure them. Carrying loads up to two tons, a 'copter moves units into position with such efficiency that a high line transmission tower can be erected in less than 30 minutes.

Pole-setting is still another job the 'copter can do better and more efficiently than conventional equipment and at about one-third the cost. Additionally, the 'copter skims along the construction right-of-way with its loads, eliminaing the costs of road rights-of-way and of supplementary access roads.

'Copter Specialists

FAA general aviation inspectors are the 'copter specialists in the field. Olin K. Haley, New Orleans supervising inspector, has his finger on the pulse of GADO-8, which includes the heavily helicopter-populated Gulf area. Working with him are Frank Nolden, principal maintenance inspector and Richard F. Scholtz, principal operations inspector, both highly qualified on helicopters.

When Part 133 was announced, they were ready for the important business of certifying commercial helicopter operators to carry external loads. Two weeks later, the first certificate in the SW Region was issued to Petroleum Helicopters—after PH proved itself qualified.

Certification of helicopters under Part 133 is providing additional opportunities for adapting these craft to area needs. Thus, FAA is keeping a rapidly-growing segment of general aviation not only safe, but in a position where ready advantage may be taken of its versatile characteristics.

Frank Nolden and C. L. Tysdal discuss helicopter maintenance. Top photo: A company 'copter, with a load of drill equipment suspended beneath, flies over jungle-like terrain to new construction site. Center photo shows helicopter-riding construction engineers checking pipelines in isolated area.

The Commander Is A Lady

Col. Clara Livingston discusses the CAP's vital role in the State and Regional Defense Airlift program with FAA's Puerto Rico/Virgin Island Area Manager Jaime Serra.

It isn't just everyone who can say they were taught to fly by the renowned Casey Jones at Curtis-Wright's School of Aviation. And even fewer can state that their first airplane ride was in the old pioneer aircraft THE SANTA MARIA. But not only can Clara Livingston lay claim to both of these, she's also a colonel in the Civil Air Patrol and commanding officer of the Puerto Rico Wing of the CAP.

Colonel Livingston's aviation career has been very colorful . . . spanning the years since 1927. In 1933, she checked-out on her first cross-country flight to California.

Clara Livingston has personally known many famous aviation personalities. One date that stands out in her mind is June 1, 1937.

On that day, she entertained overnight guests at her Dorado Plantation in Puerto Rico. One of these guests was a flyer whose name ranks first among women pioneers in aviation—Amelia Earhart. Another guest was Miss Earhart's well known navigator, Fred Noonan. This was Miss Earhart's first overseas stop on her ill-fated world flight from which she never returned.

Colonel Livingston's service with the Civil Air Patrol dates almost simultaneously with the Pearl Harbor bombing in December 1941.

In addition to her affiliation with the CAP, she has served as a flight instructor under the War Training Service and later joined the Women's Army Corps. Following this service, she used her "GI" benefits to qualify for a multi-engine rating and a commercial helicopter license.

From 1947 until 1953, she operated a CAA-approved flying school at San Juan and Dorado, perhaps the only school whose location made the long cross-country flight (required for a commerial pilot's certificate) necessarily an overwater flight.

Probably one of the most rewarding parts of her flying career has been her association and dedication to the Civil Air Patrol.

"The CAP," said the Colonel, "is a child of the war, born to give civilian support to the Air Force in its mission to maintain American air supremacy."

Today, in peacetime, the mission of the CAP has changed somewhat. The CAP now is officially designated as an Air Force auxiliary, which approximates 80,000 members, made up of pilots and cadets who fulfill some of the non-combat Air Force missions.

Its major program areas are air search and rescue, emergency communications, aviation education, and civil defense. In this latter category, FAA people in the Southern Region have had considerable contact with this gracious lady aviator.

Colonel Livingston, as commanding officer of the Puerto Rico Wing of the CAP, is working closely with the Agency in the State and Regional Defense Airlift (SARDA) program.

By Executive Order, the FAA has been given the responsibility for certain emergency preparedness functions, including preparing regional emergency plans and preparedness programs for the emergency management of the nation's civil general aviation aircraft fleet.

At the start of this massive defense readiness program, the CAP played a big part jointly with the FAA, the Office of Emergency Planning, state civil defense organizations, and the military. CAP's primary functions include providing people, airplanes, communications facilities, materials, and resources necessary to accomplish this mission in time of national emergency.

As a member of the SARDA advisory planning board, Colonel Livingston has assisted in preparing guidelines for a large civil defense exercise, "Survival East and South," which will be held October 3-4 of this year. This airlift exercise will test the Southern and Eastern Regions' abilities to marshall and conduct a civilian general aviation airlift under simulated emergency conditions.

In the important civil defense programs as well as other vital aviation functions, Colonel Clara Livingston is indeed an asset to Puerto Rico, the Civil Air Patrol, and the Federal Aviation Agency.

Aircraft Services Base... WHERE HANGAR DOORS NEVER CLOSE

The words have all been said before—hustling, bustling, driving, vast, sprawling, busy, busy, busy,—but they still are the best ones to describe what goes on in and about the hangars, shops and offices of the Aircraft Services Base at the FAA Aeronautical Center in Oklahoma City.

This is where the Agency's fleet of 130 planes come for major inspections, modifications and overhaul. Other government agencies and offices have their planes tuned up at the FAA's Aircraft Services Base on a reimbursable basis. Under the same financial arrangement, with the Agency for International Development acting as middleman in most cases, many foreign governments find the services and skills available at ASB matching exactly their own particular requirements.

Not so long ago, the Aircraft Services Base modified air navaid flight check planes for Mexico, Peru, Spain, Thailand and Canada. The Mexican plane, a light two-engine Beechcraft, smallest ever equipped for this kind of work, presented a challenging problem because of its size. With no plane-stretcher available ASB engineers and technicians took a more realistic approach—wherever possible they substituted lightweight, transistorized equipment to produce a product entirely capable of checking en route radio aids.

Later ASB engineers got their hands on the Mexican plane again and stuffed it with additional gear—a single glide-slope instrument, recalibrated the equipment, and modified the recording system.

Even the Air Force, magnificently equipped as it is, regularly sends its ten C-140 JetStar navaid check planes to the Oklahoma City base for their 45-day equipment calibration tests. The military planes, used mainly for high-altitude, high-speed, and very specialized work, share hangar space with the Agency's 76 navaid check planes.

Making Aircraft Services Base tick with the precision of a fine watch are approximately 1,000 professional and semi-professional personnel including engineers of all kinds, pilots and aircraft technicians whose skills range across the entire spectrum of the aviation trades. They work three shifts a day, seven days a week.

Heading this elite force is Robert L. Sicard, Chief, Aircraft Services Base. He reports to Allen M. Morrissey, Chief, Aircraft Services Division, in Washington. On top of the organization structure is George S. Moore, Director of Flight Standards Service.

Aircraft Services Base is a "tenant" of the Aeronautical Center, as are the FAA Academy, the Aeromedical Research Institute, the Installation and Materiel Depot and others. Overall management of the Center is vested in the Manager who is responsible to Associate Administrator for Administration, Alan L. Dean.

The Aircraft Services Base maintains its own fleet of aircraft which it uses in connection with test work and in support of the FAA Academy. In the inventory are one Boeing 720, five TV-2 jets, five turbo-prop Convairs, four DC-3s, two DC-6s, two Convair 340s, two C-135s, one Convair 880, one Aero Commander 560, one Lockheed Electra 188. One Beechcraft C-45 is assigned to CARI. ASB also operates five leased light twins.

While ASB is completely equipped to perform almost every kind of aircraft maintenance it sometimes makes fiscal sense to farm out certain kinds of work. Rather than "tool up" for a one-of-a-kind plane the job is offered on bid to general aviation maintenance contractors nationwide. Last month the FAA's Boeing 720 entered the shops of Fairchild Stratos Corp., in Florida, for its 4,000-hour major overhaul.

The effect of air turbulence, particularly clear air turbulence, on aircraft structures ranks high on the calendar of Aircraft Services Base. Using the Agency's Boeing 720 as the test vehicle, the FAA and the National Aeronautics and Space Administration jointly began turbulence studies last April and expect to complete their investigation this month. This is an example of deliberately seeking out trouble in order to devise instruments, aircraft, and flying techniques to avoid or nullify future trouble.

Also being investigated under Aircraft Services Base supervision, using FAA aircraft, are changes in positioning and markings of flight instruments installed in high-performance jet air carriers. The sharp take-off and climb angle of these planes gives rise to the possibility that some changes will have to be made to keep pace with aircraft development in general.

To find out what is needed now and for future aircraft ASB engineers installed special movie cameras loaded with color film in various places in the pilot's compartment. In a series of carefully controlled tests by ASB pilots the cameras "shot" the instrument panel, capturing on film what the human pilot sees when seated as he would normally be on take-off and climb-out.

The resulting films were passed on to instrument manufacturers who are studying them for possible modification of their products.

If you like a nice, quiet atmosphere where the biggest physical exertion involves a trek to the coffee bar and the toughest mental chore is figuring your vacation schedule, strike Aircraft Services Base from your list. The old words still apply—hustling, bustling, driving, vast, sprawling, busy, busy, busy.

Above: Vast is the word to describe the cavernous hangars where Aircraft Services Base engineers, mechanics and technicians work a round-the-clock schedule keeping FAA planes in top-flight condition. Left: a major project scheduled for completion this month is scientific evaluation of aircraft instrument markings and positioning in high performance jet air carriers. Below, left: mechanic tows FAA TV-2 from the hangar to ready it for early morning flight by pilots from FAA Academy. This is one of 25 planes of various types based at the Aeronautical Center maintained by Aircraft Services Base. Below, right: DC-7 undergoes a nose-to-tail major overhaul and inspection. FAA planes based in 16 cities worldwide from New York to Los Angeles, and overseas in such places as Beirut, Frankfort, and Hawaii go to Oke City for periodic inspections.

Fred Holland belts one down the middle of the fairway as (from left) Major John Loisel, USAF, William Brown, and William Lewis wait their turn.

George Weimar of the ATC Pool softball team eases the workload of Electronics team catcher by poking one inside the right field foul line during one of the league games. (Below) Finding the ball too hot to handle are (from left) Ellen Orr, Isabel Orr, Kathleen Macrie, Carole Byard and Lillian Senn.

Fun at NAFEC

The girls still win with runs walked in,
The men with singles clean.
Her curve just spared that 4-10 split,
His 9-iron missed the green.
Though strikes 'n spares 'n walks 'n par
May sometimes get confused,
That's not the point at all, my friend,
It's the muscles being used.

The FAA's Physical Fitness Program was launched at the National Aviation Facilities Experimental Center last June. But even in the scientific environment of advanced computer applications, the comparison of pledges versus progress is not yet available. It is known, however, that the filled-out FAA Forms 3468 have caused an impressive number of enthusiasts to arise 15 minutes before breakfast to chase the desired state of physical fitness.

Most of the athletic programs are run by the NAFEC Association, an employee organization in which membership is free to employees and their immediate families.

The Men's Softball League has over 100 on its roster. Three games a week are played in a 14-week schedule that ends in a championship playoff. The seven teams of the league represent each of the five SRDS Divisions located at NAFEC, with two ATC specialty teams made up of personnel from the same organizations.

There isn't enough female talent on the girl's softball scene to support a Center league as yet, but this hasn't kept them from playing in community leagues.

Golf, the Center's old-line organized athletic activity, has grown this year. Three different leagues play in once-a-week evening events and competition is strong enough to promote spare time practice rounds.

The tennis group is smaller than it was last year but local courts still see a lot of good action. What may have been lost in numbers is now made up in vigorous flailing activity.

The past bowling season saw almost 120 addicts charging the foul line in four Center leagues. Fitness may have received a brief setback during season-end banquets but it's generally understood that these "blowouts" are customary among keglers.

Most of the uninitiated don't think of hunting as being a strenuous physical pursuit. New members of the Center's Sportsman's Conservation Association who trek all night to enjoy the enchantment of a duckblind in the Jersey marshes at 4:00 A.M. are fast reversing this opinion.

These activities, plus the added attractions of fishing, boating, swimming, surfing, water skiing, ice skating, bicycling, riding and hiking, all boost the spirit of physical fitness.

Physical fitness and fun go hand in hand at NAFEC.

Better than new after expenditure of 1,000 hours of work and only $516.

Out of the garage and to the field for final assembly and flight testing.

NEW LIFE FOR OLD BIRD

"Restoring" is a nice inoffensive word used by airplane buffs as a catch-all term that translates out into endless hours of patient research, scorched and blistered fingers, aching backs, chronic financial cramps, group therapy (hangar flying) to restore faith and morale—and a whole lot of fun for those lucky enough to be bitten by the bug.

Such a man is LaMarce W. Vaughan, an airport tower controller at Baer Field, Fort Wayne, Ind. His wife Alice, a paragon of patience and understanding during the estimated 1,000 hours it took him to restore a somewhat rickety 1946 Taylorcraft, now flies regularly with him.

Vaughan, a member of a local flying club when he was working the Rockford, Ill., Tower, laid down $350 for the Taylorcraft in the fall of 1962. The tired bird, its 2,500-plus hours of club flying plainly showing, was disassembled and for all purposes, retired. Vaughan thought otherwise and when he was later transferred to Fort Wayne, restoration was already well under way.

The stripped plane, every rib, spar and longeron bared for detailed examination, was installed in the garage. There it was to become Mrs. Vaughan's constant companion until the spring of this year when it was towed, sans propeller, wings and tail surfaces, to Baer Field for final assembly and flight test.

In the interim Mark Vaughan, with FAA Manual 18 (Maintenance, Preventive Maintenance, Rebuilding and Alteration of Aircraft), never far from his fingertips, learned the art of aircraft restoration the hard way. Where the manual was obscure Bill Sheets, a certificated aircraft and engine mechanic, and FAA authorized inspector, contributed his considerable technical advice and assistance.

Sheets, of Fort Wayne, apparently made a strong impression on Vaughan who said: "This is the first time I ever tried anything like this and I can't tell you how much help Bill was. This has been a liberal education and Mr. Sheets is a very apt teacher."

When Vaughan, who is 32 and a member of the FAA family since July 1959, bought the plane he was still a student pilot with a modest ten hours of stick time. While rebuilding his Taylorcraft he managed to log additional time to qualify for his private pilot ticket but not enough, in his opinion, to test hop his plane.

This honor fell to his friend Herb Lantz, a flight service station employee, who had been itching to get his hands on the stick. He got his chance April 30. The plane passed all tests with banners flying and now appears in the record books as N96470. The plane, resplendent in new fabric and glistening with several coats of red and white dope, will fool even the most critical viewer who would never guess that Vaughan managed to carry out the restoration job for only $516.

Vaughan's formula for success is a simple mixture of common sense that starts with: "Find a good basic airplane." It also includes locating an understanding A & P or aircraft inspector who will watch your progress and make the necessary inspections and ". . . doing things right from the first time."

Right now Mark Vaughan is enjoying his resurrected plane—and keeping an eye peeled for another to rejuvenate. His FAA Manual 18 is still a reliable book but by the time this account appears Manual 18 will have been replaced by FAR Part 43, a very up-to-date manual that should help Vaughan in his next project.

Above: Venezuelan pilots head back to South America ferrying their newly acquired C-123's secure in their air space reservation provided by CARF. Below: Air traffic confliction is quickly resolved by CARF's Air Traffic Control Specialists (from left) Carl W. Stanley, Benjamin F. Thornton and Howard R. Goodson.

CARF Watchdog of Air Space

Try to visualize a hundred Army tanks, several dozen 8-wheeled trucks and a sprinkling of motorcycles, all roaring down 42d Street bent on crossing Times Square at 5:00 P.M.

Confusion? You can say that again.

Similar traffic problems—though certainly not as bad as that exaggerated above—could occur in the skies of the United States and foreign areas were it not for the skilled and professional teamwork of a highly important organization located in the heart of FAA's headquarters building in Washington, D. C.

What is this organization? It's CARF, short for Central Altitude Reservation Facility—the only facility of its kind in the air traffic system. The mission of CARF personnel is to control, coordinate and approve largely military requests for altitude reservations in the entire U. S. and certain oversea areas.

Prior to July 1956, aircraft altitude reservations were handled by individual air traffic control centers. Most of the reservations were used by piston engine aircraft and over relatively small areas which involved few centers.

Later, long range B-52 and supersonic B-58 bombers found their way into the Air Force's Strategic Air Command's operational inventory. Naturally this resulted in increased mission ranges and complexities. Also, the larger number of complicated routes with associated details caused more altitude reservation requests.

Centers found it increasingly difficult to process and coordinate the "snowballing" military aerial activity. This, coupled with the prospect of expanded missions, clearly showed the need for a new altitude reservation system.

CARF's spacious new operations room in the FAA headquarters building in downtown D. C. From left, Controllers Benjamin F. Thornton, Carl W. Stanley, Robert R. Wheeler Jr., and Roy E. Nelson Jr.; John P. Biddle, Watch Supervisor, and Ralph R. Klein, Controller.

The answer was to consolidate the authority to approve altitude reservations in a single office to accommodate the entire country and foreign areas. The CAA in conjunction with the Air Force established CARF on July 24, 1956, which began to process and coordinate altitude reservation requests at their original office in Kansas City, Mo. In October, 1963, CARF moved to Bailey's Crossroads, Falls Church, Va., where they remained until April, 1964, when they checked-in to their present more spacious location.

Where does CARF gets its personnel? CARF coordinators transferred from numerous air traffic control facilities representing a cross-section of the U. S., incluing Alaska, Hawaii, Guam and San Juan. This pool of center and RAPCON experience, plus varied location background, enabled CARF to appreciate the problems found in most air route traffic control center areas.

Also, this knowledge permits CARF personnel to act effectively as the coordinating link between centers and users of airspace reservations.

Addison D. Scott, chief controller, heads a staff consisting of an acting deputy chief, Edward D. Eisele, two watch supervisors, 27 controllers and one secretary.

Service is provided by CARF to Strategic Air Command (the major user), Tactical Air Command, Air Defense Command, U. S. Navy, Presidential and Vice Presidential flights and, on some occasions, to many of the NATO Air Forces. At the present time SAC altitude reservations constitute approximately 70 per cent of the CARF workload.

CARF is responsible for analyzing all altitude reservation mission requests to determine if conflictions will exist between other proposed missions. It must make sure that flight paths proceed through critical or congested areas without creating serious air traffic control problems and that flight paths don't cause undue restrictions to the movement of normal air traffic.

The physical appearance of the control room on the sixth floor of the headquarters building is not much different from that of the adjacent offices except for the many plotting boards along the walls. For security measures it has but one entrance which may be opened only by playing the right "tune" on an electronic lock.

Inside there are 31 plotting boards approximately 5 by 8 feet in size. Twenty-nine boards hold maps of the U. S. and ocean areas which are used to plot day-by-day operations. Each map represents a 24-hour operation which allows them a two-week plotting capability. The other two maps used for Canadian and foreign areas, determine the foreign air traffic control centers from whom additional approval is required for mission routes extending beyond the U. S. There are many missions in this category due to the far-reaching range of military aircraft.

In a typical day's activity, it's not uncommon for a CARF specialist to talk directly with military project or planning offices in Hawaii, Alaska, England, Spain, or North Africa to resolve possible mission conflicts. These actions are in addition to intra-agency coordination on FAA land-line circuits and commercial telephone. Large scale exercises often require coordination with different military services, commands, units within commands, foreign air attachés, FAA air route traffic control centers, regional offices and foreign air traffic control facilities.

To give an idea of the enormity of CARF's operations, there were 2,735 missions in 1957 which represented 38,003 aircraft, compared with an estimated 14,615 missions involving 41,767 aircraft for 1963.

An example of one of the many CARF responsibilities is hurricane evacuation of military aircraft. Certain military commands have hurricane evacuation procedures set up with CARF. During the hurricane seasons a number of evacuation plans are held in readiness and, with a minimum time notice (one to two hours), CARF can transmit a reservation approval for routes and altitudes which have been previously coordinated with centers and military units. In this manner CARF provides a procedure which allows the military to move large numbers of aircraft on short notice and with minimum problems to centers.

CARF has become an integral part of the air traffic control system as a governing factor in the efficient use of airspace in the intermediate and high altitude route structures. By applying its authority in coordinating and approving mission traffic, CARF has provided the necessary airspace for USAF's tactical aircraft to safely maintain the highest possible standards of combat readiness, with minimum inconvenience to other airspace users. In providing technical assistance to the USAF, in numerous proficiency exercises, CARF has contributed to the establishment of an effective and ready airborne deterrent force, SAC, an essential component of this nation's defense.

From left, Controllers Clarence R. Rainer, Ralph R. Klein, and Robert R. Wheeler Jr. make a change in current traffic which will be sent out by teleptype as a Central Altitude Reservation Facility advisory to affected air traffic control centers.

AWARD FOR EXCELLENCE TO WORCESTER SMS CREW

Kenneth Schofield's smile reflects feelings of SMS 484

When your tower and communications equipment bat 100 per cent with no outages for an entire year and the index of your ILS exceeds the regional average, your maintenance is tops and recognition is in order. Section A, SMS 484, Worcester, Mass., established this record in 1963.

Recognition took the form of a plaque bearing the names of Section A's personnel and reading:

"Federal Aviation Agency, Worcester, Mass. Achievement Award for Excellence in Electronic Maintenance."

Kenneth Schofield, Section Chief, accepted the plaque from Fred Salloom, Chief SMS 484, on behalf of technicians Thomas Gaskill, Leo Jones, and Bradley Smith.

Starlifter Makes Flying Freight Car A Reality

Here's a new method of transportation for this 40-foot-long freight container. Normally, such type vans are placed on a railroad flat car and moved from city-to-city, and then transferred to a trailer truck for "off-line" delivery. This picture graphically proves that the same container, 8' x 8' x 40', will fit easily into the USAF's new fanjet C-141 "Star-Lifter," with its straight-in rear loading, and have room to spare. This fast, intercontinental jet aircraft can also easily airlift eight truck-size van containers in its 70-foot-long cargo section. The "Star-Lifter," most powerful aircraft in the free world, is the first to be developed as a joint Military-Federal Government-Industry venture for dual military and civil use. These new cargo jets are being built at Marietta, Ga.

Kadi to Washington In New Post After Second Tour In Pacific

Frank S. Kadi, Assistant Chief in PC's Systems Maintenance Division since 1962, returned to FAA Headquarters in Washington, D. C., last month. His new assignment is with the Systems Research and Development Service. Kadi first came to PC in 1948. He later served in the Central Region followed by a five-year stint in Washington. During his first tour in Hawaii he worked at various field offices with Systems Maintenance, and also served in the Avionics Section of Flight Standards. While with Systems Maintenance he assisted in the installation and subsequent supervision of the first FAA radar in the Pacific Region, at Honolulu International Airport.

AGENCY PLANS PROGRAMS TO DEVELOP MUCH NEEDED GENERAL MANAGERS

What the FAA needs most in the manpower field are General Managers. This was pointed out recently by Alan L. Dean, Associate Administrator for Administration when speaking to a training officers conference. Dean said this deficiency was almost an emergency at the time of decentralization and that even now, as the Administrator and the Executive Personnel Board try to fill the Agency's top jobs, they find an alarming lack of qualified general managers.

Mr. Dean was emphatic in stating that a general manager had to do more than manage men, money and materials or know the processes of administration and how to use them. In addition to all that, he said, a general manager must have a general manager's point of view. This was defined as the ability to see the Agency as a whole and work for its total goals, not just advance one segment or program; the ability to rise above one's own field of technology or professional area; to be simultaneously stubborn and forceful, while being flexible and conciliatory, and finally, to have the capacity for continued growth.

FAA has taken positive action in the past two years to correct the situation that exists in the managerial field. Jobs were introduced in which general managerial skills are highly essential—Regional Directors and their Deputies; Area Coordinators, Center Managers, Comprehensive Subregional Managers (Project FOCUS). Too, the stress placed by the Administrator on management practices and cost consciousness has helped create a climate in which general managers can be developed.

While recognizing that two-week programs cannot make managers, they have been instituted on a wide scale to stimulate the imagination and develop insights into management techniques. Also, the Agency is taking increasing advantage of short term programs offered by the Civil Service Commission, Brookings Institution and the Department of Agriculture Graduate Schools, and longer term programs available from military war colleges and the Princeton Mid-Career Program.

The Administrative Development Program described in this issue of HORIZONS (pg. 25) is the latest and most important step yet taken to provide general managers for the FAA. It is a radical new venture for this Agency and is almost unprecedented on the civil side of the U. S. Government. It is a costly program but the dividends are expected to be high. It will be demanding on the participants, but those who make the grade will have every chance to rise to the top.

FEDERAL EXECUTIVE BOARDS FOSTER COOPERATION

The FAA is taking increasingly active leadership in the work of Federal Executive Boards. These are Boards made up of high-level Government officials stationed in every part of the country. At this time, when every Federal agency is under instruction from President Johnson to improve its management practices, and economize on expenditures, the Boards offer an effective approach toward implementing his orders on a national scale. Also, while conditions vary in different communities, the FEBs are proving successful in establishing a framework within which solutions to these common problems can be sought.

Associate Administrator Alan L. Dean is the FEB Washington contact. In the field the Agency is represented by the Regional Directors.

Arvin O. Basnight, (SO) is Chairman of the Atlanta Board—a first for the Agency; Oscar Bakke, (EA) Chairman of the Management Improvement Committee of the New York Board, recently organized and conducted an outstanding seminar on increased productivity through better use of manpower resources; Archie W. League (SW) plays a key role in Fort Worth-Dallas, and in Los Angeles, Joseph H. Tippets (WE) Vice Chairman of the FEB, organized and directed a cost reduction conference.

Federal Executive Boards were created by Presidential Order. Their essential purpose was to foster cooperation among Federal agencies in the interests of economy and efficiency, and to provide a network that would speed Presidential programs into action.

Following this, the Chairman of the Civil Service Commission was directed to arrange for the establishment of such a Board in each of the Commission's administrative regions. This was done early in 1962, in the 10 CSC regional headquarters cities of Boston, New York, Philadelphia, Atlanta, Chicago, Dallas, St. Louis, Denver, Seattle and San Francisco. Since that time, and largely through FAA efforts, two more have come into being, one in Los Angeles and the other in Kansas City.

Although every Federal agency has a separate mission all have areas of common interest. Among them are management and budgetary procedures, personnel policies, recruitment, office space, procurement activities and public information. The FEBs provide opportunities to pool Government experience and resources and accomplish savings.

In substantive programs the Boards provide definite channels for action. For instance, they are an excellent mechanism for getting the Civil Rights Program started as that will involve all agencies and require a substantial educational program at regional and local levels.

In the comparatively short time they have been in existence, Federal Executive Boards have proved a unifying force among Government agencies by providing opportunities for constructive interaction. Also, heightened consideration of Presidential programs enables the members to function better in their roles as Federal managers.

Regional Directors at Headquarters

All Regional Directors, the Assistant Administrator, EU, Managers of NAFEC and Aeronautical Center met in the conference room with Administrator Halaby (fourth from right) and Headquarters officials in Washington June 15-19.

Penn State Coed Nancy McKinley Chosen "Miss NAFEC" for 1964

NAFEC Manager Harrison presents trophy to Nancy McKinley as last year's beauty queen, Donna Lillard, looks on.

Close to the home of the Miss America Pageant, Atlantic City, there are perhaps, more local beauty contests in the smaller adjacent communities than any other comparable area in the country. Twelve miles inland, at NAFEC, a queen has been crowned annually for the last five years.

Miss NAFEC for 1964 is green-eyed blonde Nancy McKinley, a 19-year-old coed from Penn State. She is the niece of Helene B. Shields of Technical Services Division and resides in Longport, in suburban Atlantic City.

The annual Miss NAFEC Pageant is sponsored by the NAFEC Association, the recreational association of employees at the Center. The pageant was produced by Milton D. Smith, a management analyst, who acted as emcee, and Mrs. Mary A. Wise, a procurement assistant, both at the Center.

FT. WORTH GROUP HAILS FAAers

Three FAA employees were among 21 federal workers who received "Oscars" at the annual recognition awards ceremony of the Fort Worth Federal Business Association in June.

Receiving Certificate of Achievement Awards were Mrs. Evelyn H. Chandler, medical administrative officer (acting), Aviation Medical Division; Mrs. Ruth Spilker, Chief, Control Branch, Personnel & Training Division; and Charles B. Mallonee, Property and Supply Officer, Materiel Branch, I&M Division.

Others honored named by the Association included the "Civil Servant of the Year," "Career Girl of the Year" and the Special Service awards.

Since the awards program was initiated several years ago, it has greatly contributed to better community understanding and appreciation of the caliber and achievements of government workers.

SPRING FLOODS SWAMP 3 CENTRAL REGION AREAS

Flood waters have touched FAA employees in three locations recently with varying damage and extra work details. After two days of continual rains in northwestern Montana, where some locations reported up to eight inches of rainfall, the Swift Reservoir dam in the mountains west of Cut Bank broke, sending a 20-foot crest of water through Birch Creek and down into the Marias River.

Soon after, another dam broke in an area close by and more water, added to the deeply packed snow in the mountains, touched off widespread flooding.

By 6:00 P.M. on Monday, June 8, it was apparent that Cut Bank Airport would become the center of air search and rescue operations. The men of the Cut Bank FSS rallied to the call for help and dual watch coverage began.

Great Falls, Mont., was hit on June 9. At the request of the Air Rescue Coordinator and in accord with established procedures, the center at Great Falls issued flying restrictions at levels below 2,000 feet within the disaster area.

FAAers, both on and off duty, pitched in to help. Flight Service Specialist Bill C. Roper, Cut Bank, Mont., spent 14 hours directing helicopter rescue operations with pinpoint accuracy. William Davidson, center controller at Great Falls, Mont., flew his own plane on search missions and delivered medicine and serum. Coordinator Grover Austed and Edward Darko, electro mechanic, both from Great Falls, used their boats in rescue work under Civil Defense direction. One of the Red Cross units got a hand when William Hirchert, center controller at Great Falls, distributed food to workers and those families who were evacuated. Many other Agency personnel also contributed much of their time to helping out during the flood.

FAA employees who participated in the rescue efforts were commended by Central Region Director J. M. Beardslee for their unselfishness in responding to the emergency as they did.

For a time telephone lines to Cut Bank, the Search and Rescue headquarters, were out of commission apparently because of the flood conditions. Aeronautics SAR Coordinators at Cut Bank, Mont., coordinated rescue work throughout the days and nights until the situation was under control. Helicopters, C-47 and C-123 type aircraft were all used in the airlift evacuating persons from Glacier National Park and surrounding territory to safety in Great Falls or Spokane.

In a separate incident June 16, an air traffic control specialist in Omaha suffered the loss of his home and car and other belongings in a flash flood that inundated the Offutt ILS building putting the facility out of commission. No other Agency personnel were affected.

Al Young Hopped, Skipped, and Jumped to Alaska

Alfred K. Young, flight operations specialist in the Flight Standards Division of the Alaskan Region, takes a close-up look at his newly acquired float plane as it bobs on Lake Hood. He ferried the plane from Oklahoma.

Alfred K. Young, a Flight Operations Specialist in the Alaskan Region's Flight Standards Division claims a "first" by ferrying a Piper Super Cub on floats from Ponca City, Okla., to Anchorage Alaska. He flew the "inland" route to Alaska and landed on rivers, lakes and ponds while en route.

Al's flight path took him over the Prairie States and the Canadian Provinces of Saskatchewan, Alberta, British Columbia and the Yukon Territory—a distance of 4,900 miles and 33 hours of flying time. To negotiate long distances, Young had received authorization to install a 30 gallon auxiliary tank behind the pilot's seat. The additional tank stretched the Super Cub's cruising range to seven hours.

Good planning on each leg of the flight made it almost uneventful. Young doesn't believe that such a flight relying only on floats for landing over this route has ever been attempted before. Any takers?

Presto! A Flick of the Switch Chases the Darkness at Oakland

Edward C. Marsh, Deputy Director, Western Region, turns on Oakland's new runway lights, making Oakland one of the five U. S. airports to be equipped with the new-type "flush-set" lights. Present at the turning-on ceremony were Nils Eklund and George Vukasin (at left), of the Airport Commission and Tom Dowling, (far right) Bay Area Coordinator.

First Aid Teacher's Certificate Earned by Baker from Red Cross

Willie Baker, left, gets certificate from E. K. Taylor

Willie Baker, who is an Electronics Maintenance Technician with the Chicago Midway Systems Maintenance Sector (802) receives a Red Cross Instructor's Certificate from E. K. Taylor, industrial First Aid Chairman with the Chicago Chapter of the American Red Cross. Baker was one of 50 men from Chicago area firms and organizations who met one full day a week for five weeks to qualify as an instructor in first aid and lifesaving techniques.

Baker will use his newly acquired skills to instruct classes in first aid for other Sector personnel.

INDIANAPOLIS RACE DAY FLY-INS HIT NEW HIGH

Good flying weather and the promise of an exciting event made Race Day 1964 one of the biggest fly-ins at Indianapolis in the history of the Memorial Day Classic.

Although marred by a tragic accident during the race itself, the day was a success so far as the flying was concerned with no known incidents or decrease in normal services.

Records set for Race Day included inbound flights handled by the Flight Service Station exceeding any previous year's activity. A breakdown of traffic for the day shows the following: Total number of aircraft parked was 1,315 including 596 at Weir-Cook Municipal (324 multi-engine); 569 at Shank Airport (35 multi-engine); 100 at Sky Harbor Airport (20 multi-engine) and 50 at Metropolitan Airport.

Total operations at Weir-Cook Airport recorded by tower personnel was 1,271. Some 348 inbound aircraft were handled between 7:00 A.M. and 10:00 A.M. on Race Day. Between 8:00 A.M. and 10:30 A.M. 612 aircraft contacted Indianapolis VFR Arrival Control for landing information.

The Flight Service Station reported similar record figures for the day. Aircraft contacted—542; flight plans originated—176; inbound flight plans received —281; pilot briefings 728.

A great deal of credit goes to the controllers and flight service specialists who devised the special procedures used during this period of high density traffic, and who worked long and difficult hours in handling the traffic without a single mishap.

It should also be noted that the 569 aircraft which utilized the Shank Airport were operating into a small, uncontrolled grass field, a scant 3,000 feet in length. Even though all types of aircraft, from Piper Cubs to light twins, used the airport, with sometimes 12-15 aircraft on the approach at one time, not a mishap occurred.

This speaks highly of the competence of the general aviation pilot and close cooperation of the general aviation personnel in the FAA. GADO personnel maintained surveillance over all fields during Race Day with particular emphasis on Shank, the uncontrolled airport and Weir-Cook, the busiest.

40-Year Service Award Recalls Early-Day Crash

On June 2, Western Region Director Joseph H. Tippets presented a 40-year service pin to Emory C. Bronner, an employe of the Seattle Structures and Grounds Area.

When Allen D. Hulen, Deputy EU, noted the item in the Western Region Intercom, he recalled an incident he "shared" with Bronner in the early 30's.

Hulen wrote Bronner recalling that the two were passengers of a United Airliner which crashed on a mountaintop near Knight, Wyo.

"As I recall, this was one of the first sleeper passenger services, and I think it occurred between 1932 and 1934," Hulen wrote. "One thing I do very vividly recall is that we had one can of sardines to pull us through the night and that we drank the oil, which, of course was a mistake. Since that time I have spent a few miserable nights siwashing in the wilds of Alaska, but I do not believe I have ever spent one more uncomfortable."

Heads-Up Thinking Nets $425 Cash Award for Wisey

"Joe" Wisey, Flight Standards aircraft mechanic lead foreman in EA's Hangar 11, was the recipient of a $425 award for a suggestion that improved maintenance on Agency aircraft.

The award was the highest ever given an employee in EA's Flight Standards Division. Wisey's suggestion makes him eligible for possible additional money if the idea is adopted Agency-wide. The FAA is a participating agency in the employee suggestion program.

Christian B. Walk, Chief of the Division (right) presented the award.

J. F. K. Memorial Library Fund Gets $29,410.50 Boost From FAA

Postmaster General John A. Gronouski accepts check from Deputy Administrator, General Harold W. Grant.

At the close of the John F. Kennedy Memorial Library Campaign on June 15, FAA employees had contributed $29,410.50—with donations still coming in.

According to the tally, the Pacific Region topped the list with 90 per cent participation.

Central Region claimed high-dollar honors with $4,885.52 contributed by 2,927 donors.

Deputy Administrator Harold W. Grant, FAA chairman for the campaign, presented the Agency's check to Postmaster General John A. Gronouski in a brief ceremony in the Postmaster's main conference room. At that time it was revealed that Federal workers had contributed $1 million as of June 15.

RICHMOND GADO AT IT AGAIN

Personnel at the GADO in Richmond, Va., are not strangers to sustained superior performance awards. Supervising Inspector Hamilton B. Gowin is shown presenting a sixth consecutive SSP to Mrs. Dorothy N. Dyer (right) aviation clerk and a second to Mrs. Shirley M. DeMarco clerk-stenographer (center).

TEAMWORK IS BASIC IN AIR TRAFFIC CONTROL

On the ground, watching things aloft are, from left, Glen F. Daniels, interphone controller; John A. Cochran, radar controller; and Ronald V. Whitehead, coordinator.

Modern air traffic control is a shoulder-to shoulder job demanding efficiency and teamwork, instant decision making and the knack of keeping cool under pressure.

Such an efficient team operates side-by-side in the New Orleans Center's high altitude east radar sector. This sector controls the airspace over Brookley AFB, and the complex of bases around the Pensacola Naval Air Station and Eglin AFB.

It is potentially the New Orleans Center's busiest, controlling the heavy traffic plying the airways between New Orleans, Atlanta, Washington, and New York.

Air passengers and military users couldn't be in safer hands, however.

On the ground, keeping track of things aloft, are Glen F. Daniels, interphone controller; John A. Cochran, radar controller; and Ronald V. Whitehead, coordinator.

Daniels is a sturdily built no-nonsense man who came to the FAA via Utah, his home state since his grandfather treked west with Brigham Young. He was transferred to New Orleans in 1957 and lives with his wife and three children on what he calls his "estate," a five-acre spring, the pilot of a Super Twin-Beech, he had a hitch in the Coast Guard, and a tour of duty with the CAA in Alaska.

Cochran, a native New Orleanian, brings a dash of Irish wit and humor to the job. He acquired his aviation background in the Navy and after a stint with the Post Office joined the Agency in 1958. Sports occupy his off-duty time; he coaches a team in the "Dixie Youth" league, and last year his "Biddy" basketball team wound up in the national championships. He lives with his wife and three children in Metarie, La.

The third man in the team, Ronald V. Whitehead, grew up on a farm near Baton Rouge. He came to the FAA in 1954 after a four-year enlistment in the Air Force where he served as a tower operator. Memories of his youth in the bayou country and its hunting and fishing made it easy for him to accept a job in the New Orleans Center. His wife and two daughters live with him in Lacombe, La.

While each man has a distinctly different private life their professional lives blend to make an efficient air traffic control team, one of the many making the airways safe.

Hercules Is Type Certified

Lockheed-Georgia's "Hercules" C-130 cargo aircraft was granted the Southern Region's first type certification, a Class One Provisional Type Certificate and Airworthiness Authorization. It was issued by Robert H. Stanton, Chief of SO's E&M. Lockheed vice-president T. R. May (3d from right) is shown receiving the Type Certificate from Stanton. Also attending were (from left) Lockheed-Georgia president W. A. Pulver, FAA EMDO supervisors J. B. McLaughlin, H. E. Waterman, and Jim Murdock, FAA Manufacturing Representative.

Quick Thinking by Controller Pinpoints Missing GA Aircraft

On a cold, dreary Saturday in early spring, the pilot of a Super Twin-Beech, carrying five passengers, called Knoxville Tower for taxi instructions.

After take-off, the pilot again called Knoxville Departure Control and asked for radar traffic advisories. He was identified on the scope and tracked until he disappeared about 18 miles south of the airport. This loss of target is routine for aircraft flying at low altitudes through the Little Tennessee River Gorge, the usual route through the mountains for pilots familiar with the terrain.

Ted Fipps, the departure controller gave no more thought to the Beech until the next day when Miami sent an information request message to all facilities checking on the aircraft. Ted immediately recalled the flight and the circumstances surrounding the departure.

Harold Byerly, a native Tennesseean and a veteran pilot who knows the mountains like the back of his hand, was also on duty in the tower. He asked if Ted could vector him to the point where radar contact was lost. Ted said he could.

Byerly took off and was vectored to the point where radar contact with the Beechcraft ended the day before.

Harold put the plane into a steep climb and two miles to the south, spotted the wreckage of the Beech. The search for the lost aircraft had not even begun when he reported the discovery. A Tennessee Highway helicopter was dispatched to the scene immediately and found no survivors.

The speed with which Byerly, using his experience and know-how, located the wreckage, prevented a wide spread search of the rugged area by the Civil Air Patrol and Sea/Air Rescue Service.

D.C. ARTCC IS ONE YEAR OLD

A little more than a year ago, Washington ARTCC commenced operations in its spacious new building on the outskirts of Leesburg, in Loudoun County, Va. Present for opening day were Administrator Halaby, county and city officials, EA officials, radio-TV star Arthur Godfrey, and more than a thousand local residents.

Today, of the 434 FAA personnel at the Center, 180 live in the county, with 90 residents of Leesburg proper, and 35 more have plans to buy or build in the area. Significant, too, is the fact that FAAers have joined many local organizations.

NEW EA AIR TRAFFIC CHIEF REPORTS FOR DUTY

Robert W. Martin

Eastern Region's new Air Traffic Chief, Robert W. Martin, reported for duty at EA headquarters on June 1. He replaced W. Thomas Deason, who transferred as FAA Liaison Officer to the Naval Aviation Safety Center at Norfolk, Va.

Martin brings to Eastern Region 16-years of background in air traffic control. His experience ranges from his initial assignment as a controller in the Bedford, Mass. tower in 1948, to project officer on Operation Pathfinder; Program Manager of the Area Positive Control expansion program; the Birdenfeld Project. (This was the introduction of U. S. techniques to control high-altitude traffic in West German airspace.) As Chief of the Plans Branch in Washington, Martin was responsible for the development of national plans and programs for modernizing the air traffic control system.

Martin is a member of the Air Traffic Control Association (ATCA) and formerly served on ATCA's publications committee. During WW II he was a Flight Radio Operator in the European, North African and Middle East Theatre, and also in South America.

Manager Transfer Is Part of Development Program

As a first step in the Agency's systematic efforts to promote station manager career development, four managers in the Alaskan Region are being assigned to new areas.

Joel R. Caudle, Station Manager at Nome for the past year, is being reassigned to Juneau. Carl L. Melton, Station Manager for the King Salmon facility since 1949, will go to Nome. Carl E. Fundeen, Station Manager at Annette for the past 17 years, and an FAA employee since 1942, will take over the duties of the King Salmon station. William J. Johnson, Station Manager at Juneau for the past five-and-one-half years, will take over at Annette.

Purpose of the moves is to broaden individual experience and to allow these men an opportunity to expand and deepen their managerial knowledge by meeting the challenges involved at different locations.

Mr. Caudle, an FAA employee for the past 11 years, nine of which were spent in Alaska, has served at Cold Bay, Anchorage and Fairbanks stations. Melton, a resident of Alaska for the past 22 years, had served at Juneau, Aniak and Bethel. Johnson previously worked for the Agency at King Salmon, Bethel, Anchorage and Naknek.

M. Samuel White, M.D., Now on the Pilot Roster

The Federal Air Surgeon returned June 15 from three weeks at the U. S. Army Aviation Center at Fort Rucker, Ala., with a private pilot's license, a helicopter rating, diploma from the Army Aviation School and a certificate from the Commanding General declaring him to be an Honorary Army Aviator. Dr. White learned to fly in an H-13 helicopter and successfully completed the General Officers Rotary Wing Flight Training Course (Special), with 60 hours logged. Supervising Inspector Harley W. Clapsaddle, GADO-2, Birmingham, checked Dr. White out in the H-13 and issued the temporary certificate.

Dr. White and instructor in H-13

Stimson Appointed to Post Of Administrative Officer on Guam

James L. Stimson

James L. Stimson, Captain, USNR (Retired), recently became the Agency's first Administrative Officer on Guam. The new position was established to assist the Area Manager in coordinating FAA activities on the Island.

Mr. Stimson retired last year with more than 20 years active duty as a Naval Reserve Officer and naval aviator.

A graduate of North Dakota State Teachers College, Valley City, N. D., he taught school for three years in South Dakota before entering flight training at Pensacola, Fla. After serving two years as a flight instructor at the Naval Air Station, Jacksonville, Fla., he was assigned to the USS WASP as Senior Landing Signal Officer. He spent his last seven years of active duty in Washington, D. C., serving in the Office of the Chief of Naval Operations and the Chief of Naval Personnel. Prior to his assignment with the FAA he was president of the naval discharge review board.

SPECIAL AWARD TO RICCIARDI

Benjamin Ricciardi of NAFEC's fire-crash section, was recently presented with an FAA Special Act Award for voluntarily performing an outstanding task under hazardous conditions.

Last winter, Ricciardi, who is a scuba diver as well as a fireman, volunteered to search the wreckage of a military fighter plane buried 25-feet deep in a New Jersey swamp near Atlantic City.

Disregarding his own personal safety, Ricciardi exposed himself to below-freezing temperatures during four days of diving. Despite this, and the added discomfort of burns caused by airplane fuel leaking into his diving suit, he kept at it until he had unearthed the evidence required by the investigators.

Retires After 2d Hitch

Pacific Region's Edwin Griffith retired after two tours of more than 30 years as an architectural engineer. Griffith was with the PC since 1957.

Board Pegs "Preflight"

From left, FS-503's Francis J. Taylor and Chester A. Bush discuss Project Preflight control board. Idea for the board was borrowed from Deputy Administrator Gordon M. Bain, SS-1. The board keeps track of 150 independent action items pertaining to the consolidation of the FAA maintenance bases.

NEW AIRPORT DEDICATED

A crowd estimated at between 25,000 and 50,000 persons attended the dedication ceremonies of the new Kent County Airport, in Grand Rapids, Mich., on June 6, 1964. Administrator Halaby addressed the group saluting Thomas E. Walsh, who was airport manager from 1929 to 1957, as "grandfather of this airport."

Flights included the Blue Angels, Navy's aerobatic team, the Navy's 'Chuting Stars parachute team and Bob Hoover flying a North American F-51. Static displays featured the Air Force's Thor-Able missile, a B-57, aircraft from major light plane manufacturers and the Regional FAA display.

A-OK CONTROLLER VECTORS LOST NASA AIRCRAFT

Proof that even the best pilots in the flying game can get lost when stranded aloft without navigational capabilities was proved recently by a flight assist report from the Minneapolis ARTCC.

The story began when Kansas City Center notified the Minneapolis Center that NASA 721 was lost in the vicinity of Waterloo, Iowa. The pilot had advised Waterloo CS/T that he had lost all navigational capability and was on a heading of 330 degrees at an altitude of 5,000 feet.

After contacting the aircraft on the Minneapolis Center frequency controller Charles A. Conner identified the target on his radar scope through a series of turns and transponder changes. The point of identification was approximately 35 miles southeast of Rochester, Minn.

The aircraft was then vectored to Minneapolis where a safe landing was accomplished. The pilot was Astronaut Virgil (Gus) Grissom.

Grateful Pilot Pens Thanks to Ukiah FSS Personnel

The official report on a "save" by the Ukiah, Calif., FSS contained this notation: "The contributing factor was the calmness of the specialist when it was learned the pilot had no IFR experience and could not maintain any heading suggested. By use of VOR and ADF, Specialist George Atlas worked the aircraft over a break in the overcast at Ukiah and a safe landing was made."

David C. Burns, chief of the Ukiah FSS, later received this message from T. R. Harris, the pilot involved in the incident:

"You won't remember—and I won't forget—my flight yesterday. As a 'baby' student, 30-hour' pilot, I was most impressed with courteous responses to my many searching questions about the weather."

Controller Ham Operator Was Big Voice On Guam

Air traffic controller Joseph C. Price in the Guam Center Radar Approach Control was awarded the FAA's silver medal for meritorious service in recognition of his dedication to duty, skill and ingenuity in establishing and maintaining communications during and following Typhoon Karen which struck the Island of Guam, Nov. 11, 1962.

Price, a ham radio operator, was the first "big voice" out of Guam after Karen struck the island, causing damage amounting to more than $200 million.

As the big storm approached, Price packed his ham gear in waterproof plastic and carried his beam and mast to a newly completed FAA receiver control site with its own emergency power plant. This foresight enabled Price to be on the air almost immediately.

Kent County Airport

This view of a portion of the ramp and taxiway at the new Kent County Airport at Grand Rapids, Mich., shows some of the many aircraft that were on display.

FAA's Portias Convene

Whereas the FAA's only three women attorneys have pooled their research efforts, now, therefore, solutions to legal entanglements shall be assured. From left: Mrs. Elizabeth Bowers, GC-50, Mrs. Maryann B. Lloyd, GC-50, and Miss Cynthia Straker, GC-12. Mrs. Bowers and Mrs. Lloyd act as advisors to contracting officers in Washington headquarters. Miss Straker receives and answers legal questions posed by the various offices and services of the Agency.

CHICAGO CONVENTION IS TO BE COMMEMORATED

Plans to celebrate the formal beginning of post-war international cooperation in civil aviation two decades ago were recently announced by the Agency.

Chester C. Spurgeon, OA-7, will head a committee on arrangements representing five U. S. Government agencies making up the Interagency Group on International Aviation (IGIA) to develop national programs for the December 1964 observances.

Creation of the IGIA committee under FAA chairmanship follows action taken last December by the Council of the International Civil Aviation Organization (ICAO) calling for "official celebration of the 20th anniversary of the signing of the Chicago Convention . . . " and requesting participation by all member nations.

Nearly 20 years have passed since the U. S. convened the conference that drafted the Convention of International Civil Aviation, informally known as the Chicago Convention, signed on December 7, 1944, by the 52 nations attending.

El Paso Airport's New Look Includes FAA Building

A sparkling multi-million dollar look has been added to the El Paso International Airport, including an impressive two-story FAA building. Built by the City of El Paso and leased to the FAA, the building houses the flight service station, general aviation and system maintenance sector offices and the Weather Bureau offices.

William J. Schulte, Assistant Administrator for General Aviation Affairs, was one of the principal guests during the recent dedication of the new facilities.

New also are 60 additional T-hangars, a transient terminal for military pilots and an airport industrial park. Two motels and a restaurant are also included in the airport complex.

Since 1955 the itinerant operations at El Paso have increased by 115 per cent.

Fahlgren Retires from Navy, Sets Course for Fort Worth Area

Cmdr. Jewell S. Fahlgren, who served as Regional Airspace Officer in the Southwest, Central and Eastern Regions, retired Aug. 1, after 23 years of Navy Service.

Prior to his assignment in 1962 to the Fort Worth office, he served for three years in the Eastern Region.

Commander Fahlgren entered the Navy in 1941 and received flight training at Corpus Christi. He flew anti-submarine and reconnaissance patrols during World War II and later served in staff assignments.

He plans to retire in the Fort Worth area.

Prolific Avation Writer Earns Recognition for Top Performance

A. D'Arcy Harvey, AT-100, recently was awarded his second FAA silver medal for meritorious service. He is an FAA careerist of 21 years service and was cited for his work ". . . in the development of basic relationships between economic factors and aeronautical activity and the application of these concepts to planning purposes and programs."

Harvey conducted more than 15 years of research studying air traffic requirements. He is author of 60 publications in the field of aviation.

Incentive Pays Off Anywhere

Ernesto S. Pornobi, Electronic Technician attached to FAA's CAAG in Afghanistan, Kabul, receives $200 incentive award from Delmas H. Nucker, Director USAID. It was given to him for outstanding work in planning and installing airport aids.

ON THE HORIZON

• **Gyroplane Solo Flights**—The FARs have been amended to permit a student pilot to solo in a single-place gyroplane under the observation of a rated flight instructor. The new rule replaces Special Regulation SR-145 which expired June 12, 1964. (Section 61.63 Federal Aviation Regulations, amended.)

• **Field Material Specialists.** This is a new organizational title, (OA 3500.2 June 24, 1964). The actual position description may be General Supply Specialist, Assistant, Clerk, or any other prescribed by Civil Service. These specialists will serve, not just one, but all Agency elements in the facility or geographical area to which they are assigned.

• **New Movie Available**—A new 16-mm sound motion picture on President Kennedy's presenting the 1963 Presidential Awards to Federal career employees is now available. "Accent on Excellence," a 12-minute, color movie on the White House ceremony, may be borrowed from the nearest Civil Service Commission regional office.

• **SRDS Speeches and Papers**—SRDS encourages its personnel to deliver speeches and prepare technical papers for publication on SRDS programs, accomplishments and facilities. Such activity is considered to be in the public interest and a contribution to the SRDS mission. The SRDS Coordination Staff will provide certain assistance to speakers and writers. Policies and procedures are spelled out in Order RD 1200.8. (June 15, 1964.)

• **Maintenance Personnel Realignment**—The basic policy for reassigning personnel affected by the consolidation of aircraft maintenance bases is contained in OA 3330.4. (June 4, 1964.)

• **Only One Semester Left**—Korean Conflict veterans who, after continuous military service have been discharged to civilian life within the last three years, have one semester left for education and training under the Korean GI Bill.

Congress has established January 31, 1965, as the termination date for the readjustment program of education and training for Korean Conflict veterans.

This deadline applies both to those Korean Conflict veterans already embarked on their courses of study and to those who are about to start classes now for summer school work or in September for the fall semester.

The veterans may, of course, continue in school after that date but they will no longer receive an allowance from the VA each month to meet part of their training and living expenses.

Those veterans who have failed to begin their Korean GI Bill education or training within three years after their discharge or separation from the service have already exhausted their eligibility. Eligible veterans may obtain the necessary application forms at the nearest VA regional office.

• **Electronics To Trace Lost Bags**—An electronic baggage tracing system will soon be inaugurated by the domestic airlines. Known as ARCH (Airline Baggage Recovery Clearing House), the system is designed to speed the recovery of mis-directed bags which cannot be located by the routine tracing efforts within 24 hours after the loss is reported. Each year the U. S. airlines handle some 100 million pieces of luggage and, inevitably, a few are misdirected. At present, about 90 per cent of them are located within 24 hours. The new system is designed to expedite the locating of the remaining 10 per cent—the one that causes the greatest inconvenience to passengers. The new system will take advantage of the latest electronic sorting and communications equipment and will be operated for the airlines by Aeronautical Radio, Inc. Since almost all of the major airlines will be tied into a nationwide teletype hookup, ARCH will provide rapid exchange of information about lost luggage even when more than one airline is involved in a passenger's trip. The operation is basically a matching-up process using punch cards and electronic sorters. Daily, each airline will transmit to the clearing house a list of unclaimed bags on hand. Each airline also will transmit a list of missing bags. The use of a coding system will allow for an accurate description of the color, type, and even the contents of each bag. The two lists will be matched, the appropriate offices notified by teletype and the bag returned to its owner.

• **Pay and Retirement**—With the passing of the new Government pay raise, employees also will be provided with higher retirement benefits. Because annuities are determined by the high-five-year average salary factor, the increased salaries will automatically result in higher future retirement annuities.

Management Program Selectees

From a list of the Executive Personnel Board's recommendations, Administrator Halaby selected 20 employees to attend the year-long Administrative-Management Development Program which started June 22. They are, from left, (top row) Quentin S. Taylor, Hq.; Ernest P. Fernsten, EA; Robert G. Cardin, SW; John Munds, WE; Melville King, PC; Bernard C. Groseclose, SO; Robert E. Kirby, WE; (middle row) James Bispo, WE; James R. Vrooman, AL; Edmund P. Kennedy, EA; Cyril H. Femrite, CE; David D. Beyer, AL; Robert M. O'Brien, EA; (bottom row) Robert L. Gingles, SO; Albert E. Houck, SO; Arthur R. Fillebrown, FAA Academy; George H. Carr, Hq.; Paul K. Bohr, CE; Clyde T. Humphreys, CE; and William R. Ramsey, CE.

PERSONNEL PIPELINE

GOOD IDEAS PAY OFF

"I had the same idea a year ago." Ever catch yourself saying that when some new plan or procedure was put into effect?

Chances are you have, because for every good idea used, you can find other people who had the same idea. But they only thought of it. They didn't sell it.

And the man who sells the idea not only gets the credit for it but also gets the personal satisfaction of seeing it in use. He gains recognition—and usually a cash award—for his ability to think constructively.

Last year the incentive awards program showed savings worth $100 million through adopted work suggestions and superior job performance of nearly 190,000 Federal workers. In the FAA during the first half of FY 1964, 198 employees were responsible for saving the Agency $57,000.

How much are the cash awards?

For benefits measurable in dollars—savings in production time, manhours, supplies, equipment, space—employees receive an award of $15 for measurable benefits of $50 to $300; $100 for benefits of $2,000; and $500 for benefits of $10,000. Awards can be as high as $25,000 for a single contribution.

Supervisors have all too frequently emphasized only the possibilities of the area offered by an employee's immediate job. But it isn't necessary to limit yourself and ideas to your job alone or to confine yourself to the area of your work.

Turn loose your imagination Agency-wide. Concentrate on what you know best. Pick a situation that needs improvement. Then sell your suggestion.

A well organized, clear and complete presentation of your idea and its expected benefits is the best insurance for turning your suggestion into cash.

But how do I start? you may ask. Here are a few important Agency problems where your acceptable ideas could pay off handsomely: aircraft noise abatement; near mid-air collision reporting and avoidance; low cost instrument approach aids for small airports; adequate effective and economical monitoring of remote navigational aids; encouragement of young people to enter aviation; proper techniques of instrument flight to and from small airports without excessive cost or burden on other aircraft operations; and reduction of cost of flight inspection while maintaining reliability, improving manpower utilization through better scheduling of personnel.

These will give you an idea of some of the areas in aviation that need improvement. However, keep in mind that the key objective of the Government Employees' Incentive Awards Program is to improve the effectiveness of Federal Government operations by encouraging full use of employee skills and ideas.

To mark the 10th Anniversary of the Federal Incentive Awards Act, special inter-Agency awards will be granted by the Civil Service Commission. CSC will review FAA nominations for these awards along with those of other agencies.

Nominations must be forwarded to CSC by September 1, 1964. The honorary (non-cash) awards will be presented in Washington, D. C., on November 30.

Eligible for awards are workers whose achievements were placed in effect in fiscal 1964 or early fiscal 1965, or which produced additional benefits in this period because of broader application.

Three categories of awards will be given—(1) to employees for significant suggestions or achievements, (2) to first- and second-level supervisors for notable accomplishment in encouraging employees to contribute to improving Government operations, and (3) to management or program officials for notable achievement in cost reduction or increased productivity, or related fields.

Award winners will be selected from among those nominated by their agencies for achievement in cost reduction, increased productivity, methods improvement, man-hour savings, and advancement of agency mission.

EMPLOYMENT HANDBOOK OFF PRESS

May FAA advertise on radio and TV to fill job vacancies? What provisions does FAA make to effectively employ and utilize physically and mentally handicapped persons? Does the Agency pay travel and transportation expenses to the first post of duty?

The answer to these and other questions regarding agency employment policies can be found in the new Employment Handbook PT P 3300.7. The publication has been distributed to all regions.

It was written to help supervisors and personnel officers fill positions and provides guidance and support for the operating directives issued by Regional Directors, Office and Service heads.

This handbook cancels some provisions in the former CAA Standard Practices, encompasses several separate directives, and presents Agency guidance in several areas not currently covered, such as recruitment, employment of the handicapped and placement followup.

If you, as a supervisor, have any comments to improve the handbook, send them to: Personnel Programs Division, PT-20, Washington, D. C.

MANAGEMENT PROGRAM UNDER WAY

The year-long management and development program designed to provide special training for 20 selected Agency employees is now fully underway.

The selectees already have participated in fiscal and administrative service training at Washington headquarters.

During July, a concentration of courses in various aspects of personnel management were conducted. This followed a June headquarters familiarization program and brief orientations at NAFEC and the Aeronautical Center.

On August 31, the students will return to their home duty station for a two-week on-the-job research project. Following this, they will go to the Maxwell School, Syracuse University, for a semester of study. This will be followed by more class work at the FAA Academy and a variety of project and research work.

The program ends with a final week of review and analysis—June 14-18, 1965 in the Washington office.

The program provides students with a comprehensive selection of administrative-management development activities found in no other educational program.

The course has been tailored to specific Agency needs and will enable the graduates to understand and handle the variety of functions required in key posts throughout the Agency's programs.

Specifically, it will provide them with a background to carry out recruitment and training of employees; analysis and presentation of budget requirements; development and implementation of national policies, operational standards, rules, regulations and guidelines; as well as managing operating programs.

This is the Agency's most comprehensive administrative-management development effort to date. If successful, it will undoubtedly lead to greater emphasis and sophistication of the Agency's total administrative-management programs.

TECH TALK

AUTOMATIC SWITCHING OF WEATHER/NOTAM DATA

An important part of the Agency's mission is the dissemination of aviation weather information and Notice to Airmen (NOTAM) over its vast teletypewriter network. During the past several years, however, it has become increasingly obvious that the methods for transmitting aviation weather information have been overtaken by the technological advancement of aircraft and the growing aviation community.

The Agency now finds itself in a position where the teletypewriter network is becoming obsolete. As the number and speed of aircraft increase, additional strains are placed upon FAA's weather data acquisition and dissemination facilities.

This gap is being closed by an improvement program now being planned to increase the speed of all the teletypewriter communications services responsible for collecting and disseminating of weather and NOTAM data. The program is based on a consolidated automatic, solid state, computer-oriented complex capable of modular expansion able to serve the national aviation community for a minimum of 10 years. The program provides for combining the present individual weather communications services into a single system or network.

In addition to satisfying the need for increased operating speed, the new system will offer overall economy and flexibility through automatic data procedures, plus circuit assurance features not available in the Agency's existing teletypewriter network.

MANOPs ERASED IN TECH MANUAL REWRITE

The Systems Maintenance Service technical handbook program to update its entire series of technical publications reached mid-point this month with the publication of the 33d volume in the series. The program calls for rewriting 40 out-of-date MANOP's applicable to equipment currently used in the common system and the preparation of 47 handbooks for new equipment incorporated into the National Airspace System. The new publications are known as *Maintenance Technical Handbooks*—the term MANOP has vanished from the scene—to comply with the FAA directives system.

Technical handbooks contain time-tested maintenance procedures, techniques, standards and tolerances based on field experience with entire systems operating under widely different conditions. Handbooks complement and often supersede the preliminary preventive and corrective maintenance data provided in the manufacturers' instruction book. The instruction book maintenance data is of limited scope since it is based largely on data collected during the design and initial fabrication stages.

Technical handbooks are not "written" in the sense that other publications are prepared. They are "compiled" after careful review of information from many sources. These include Washington records of equipment performance in the field, records of modifications incorporated and operating experiences of field maintenance personnel, installation engineers and factory inspectors. When the handbook program was being planned in July 1960, it was given high priority. It was agreed that the basic information for the 87 handbooks would come from field maintenance technicians who had accumulated grass-roots experience in actual operation of the equipment being described. To get this kind of expertise, a call from headquarters produced 450 volunteers willing to cooperate in preparing draft manuscripts.

With an assist from the regions, qualified candidates were given writing assignments with complete specifications on how the text and illustrations were to be prepared. Two different men in two different regions each prepared a manuscript on the same subject. The over-all product was accurate and comprehensive, and representative of the policies of more than one region. Within a few months the first draft manuscripts were ready.

As soon as two manuscripts on the same subject were received, an editing panel of regional experts convened in Washington under SMS leadership. The laborious process of compiling, correcting, researching and editing then started. These sessions involved frequent discussions with Washington engineers and personnel of the five operating services to select the best material for the final manuscript.

Each manuscript was then cleared within SMS and, when necessary, the other services. After last minute corrections suggested during the clearance process, the manuscript went to the printer, and finally, to the end users according to established policies.

At present, new handbooks are coming off the presses at the rate of one a month.

INERTIAL NAVIGATION SYSTEM FAVORED FOR SST

Long before the first supersonic transport takes to the air, a staggering number of technical and environmental problems will have been solved. One of these now under study is what kind of airborne navigation equipment will be aboard.

In a recent speech at the annual Institute of Navigation meeting, Alexander B. Winick of the SRDS System Design Team outlined current FAA views of SST navigation system requirements. Although many aspects of the aircraft itself still remain to be decided, certain general concepts have been accepted which provide sufficient guidance for making basic decisions.

A variety of basic navigation systems have been considered, among them astro-trackers, pure inertial, Doppler inertial, Loran-C, and central digital computers. Several of these techniques still offer little promise because of weight, size, complexity or other shortcomings, but the most promising appears to be the self-contained inertial system.

It possesses a number of advantages, notably a high degree of accuracy in heading and vertical references. It also meets size requirements, ease of operation and power consumption. Furthermore, recent tests show that inertial developments have progressed satisfactorily during the long period of military sponsorship to a point where they are now approaching the stage of commercial utility.

Additional reliability is still necessary, and manufacturing methods must be refined to cut costs. But these problems are expected to be solved in time to meet the SST development timetable without great difficulty.

To guarantee unfailing performance, at least dual inertial systems will be required, with perhaps a third standby platform. This creates the problem of comparison monitoring of the two systems for track-keeping accuracy. Another problem is found in updating the system—how often, which systems to use, and how much the interrelationship is to be automated.

YOUR HEALTH

Tetanus, or lockjaw as it is more commonly called, might better be named the "unnecessary disease." It is unnecessary because it is one of the few diseases which can be prevented with almost 100 per cent certainty. Most people think of tetanus as the disease which follows stepping on a rusty nail. While this can be true, it also can follow almost any small scratch or abrasion. In fact, a recent survey of tetanus cases over the last few years revealed that most happened after a scratch so small that the sufferer did not remember the original injury. The same survey showed that with all the drugs and medicine available to physicians today, 40 per cent of the people who develop tetanus will die. This, however, is quite an improvement over the pre-antibiotic era when 80 to 90 per cent of the victims succumbed.

The real tragedy is that tetanus is so easily prevented. During World War I, literally thousands upon thousands of soldiers died, not of their wounds, but of tetanus infections. During World War II there were only a handful of deaths from tetanus although the number of soldiers exposed was many times that of the first. Furthermore, these were individuals who, through administrative error, had not received the three necessary tetanus shots. That's all it takes. Just three small shots which can be easily obtained from the family doctor. The first can be given any time during the season. The second follows about a month later, and the last, about six months after the first. A small booster is needed about every five years after the initial series. But the important thing is to get the first three as soon as possible.

Small children get the so-called "baby shots" which contain, among other things, tetanus protection. However, they too should be given booster inoculations about every five years. Unfortunately, many adults feel that they, themselves do not need further immunization. If you could guarantee that you would never scratch, cut or bruise yourself the rest of your life this would probably be correct.

One argument which is frequently raised is the problem of allergic-reaction to these shots. While there may be a localized swelling around the injection area, this lasts only a day or so and does not result from an allergic reaction to the shots. In the event of injury, and if you have neglected your immunization, you may need temporary protection (antitoxin). This is not as effective as the permanent inoculation, nor is it longlasting. Some people *are* allergic to *these* injections.

To avoid having to take less than the best, see your family physician today.

...AND SAFETY

That Aching Back. One of the most serious safety problems is the strained back. Every year scores of employees hurt their backs because they lift something too heavy, or go about lifting things the wrong way. These injuries, often permanent, and always painful are reported daily and are not limited to any one job category, as the following examples will show.

A supervisory aviation clerk moved a box of supplies with the idea that she was helping the professional movers. Result: strained back, off the job a month . . . A facility supply specialist got a hernia from lifting heavy boxes of electronic equipment and faces surgery. This means an automatic 50-day loss time from work . . . A mail clerk picked up a very heavy bag, twisted his back and lost seven days work . . . An electronic technician tried to lift a 55-lb EPUT meter. He did, about 12 inches, and was laid up three days with a hurt back . . . Similarly, a truck driver unloaded a 170-lb box without help, wrenched his back and was off the job three days.

Here are a few helpful tips on how to prevent some of these accidents from happening to you.

- Where professional movers are available, don't try to "help" them or do their work for them.
- Know your own strength and lifting capacity, and stay within it by a comfortable margin. If there is any doubt, make it a two-man job (and this goes for the ladies, too).
- If you must pick up that package: Squat low over the load with your knees bent and spread apart; keep your back as straight as possible.
- Grasp the object at the bottom, one hand forward, one at the rear. Be sure your hands are placed so they won't be mashed at pinch points.
- When you have a good firm grip, slowly straighten your legs, still keeping your back as straight as you can.
- Before attempting to carry the object, be sure you can see over and around it.
- To set the load down, simply reverse the lifting procedure. Squat slowly, bending your knees and trying to keep your back straight.
- Whether lifting a load or setting it down, be careful not to twist or jerk your body.
- Heavy or awkward loads should be moved only by trained personnel.

Remember, "the back you save will be your own."

The Careless Gremlin. The price of carelessness is frequently high and not nearly worth the days spent in a hospital bed or hobbled by a cast. Some of the following, for instance, will give you an idea of how the Careless Gremlin works. Not long ago a secretary was seriously injured when her chair "threw" her. It wasn't where she thought it was when she went to sit down. A controller riding in the back of an airport truck was holding onto a hand rail with one hand and carrying a piece of equipment in the other; the driver made an abrupt turn and away the controller went onto the asphalt ramp, sustaining one fracture and many abrasions. Mr. "X" fell down the steps in a radar tower, twisted an ankle and hurt his back, because he wasn't used to his new bifocals.

These are but three of the hundreds of accidents reported which needn't have happened. The secretary could have taken a second to look; the controller could have put the equipment down and held on with both hands, and Mr. X could have exercised normal caution until his eyes became adjusted to his new glasses. Only you can help to rid the Agency of the Careless Gremlin.

SINCE YOU ASKED

FAA HORIZONS welcomes any and all comments from employees regarding any aspect of the Agency. No anonymous letters will be used. Names will be withheld or initials used on request.

• Fish Story

On page 19 of your FAA HORIZONS for June is a picture of a silver marlin. Only one thing wrong, this silver marlin is a *Pacific sailfish*. I've caught 74 of them in the waters of Panama and I have broken seven official world records (International Game Fish Assn.). I presently hold the world records on sawfish for the all-tackle class; the 80; the 50, and the 30-pound line classes. My largest catch was 890 pounds.

Jack Wagner
Canal Zone

A tip of the HORIZONS' bonnet to Jack Wagner who knows a fish story when he sees one. However, a check of the records books gives us a leg up on Jack who modestly understated the size of his largest catch—it was 890 lbs., 8 ounces.—Ed.

• Wants A Flying Career

I hold a private pilot license and have over 300 hours in light, single engine aircraft. I am 20 years old and would like to make flying my career. My father is employed by the FAA and he suggested that I write HORIZONS and ask if you know of any flying program that I could get in which would eventually lead to a flying job? I don't want to get into military flying. I heard somewhere that one of the airlines had something going like this.

J.S.

United Air Lines recently announced a unique employment and training program for private pilot license holders. They are seeking flight officers in the 20-29 year age group to become flight crew members to man their expanding fleet. The new program will help offset vacancies created by retiring flight personnel.

Private pilot license holders may now apply for student flight officer positions prior to getting the required commercial pilot license. Applicants must be U. S. or Canadian citizens, and hold a private license. Height requirements are 5 feet 7 inches to 6 feet 4 inches. Excellent physical condition is a prerequisite. Vision must rate 20/50 correctable to 20/20 with glasses. A minimum of two years college is required.

Once selected, candidates will be assured employment with UAL subject to obtaining a commercial license. United will allow the applicant up to one year to meet this qualification. On obtaining his commercial license the applicant will be employed by United as a student flight officer at a starting salary of $350 per month, increased to $500 upon successful completion of the first four weeks of training. The 21-week program will be carried out at the company's flight training center in Denver, Colo.

The first four weeks of training are to qualify the student flight officer for an instrument rating. The next 13 weeks enable him to acquire a certificate required for second officer responsibilities and the final four weeks are devoted to pilot proficiency training. Second officer salary will approximate $735 per month for the second year of service increasing to $925 per month for the third year and $1,100 per month for the fifth year. For more information write to any United Air Line employment office.—Ed.

• Colonel Has Eagle Eye

Reference page 7, June 1964 issue of FAA HORIZONS. Text states Boeing-Wichita produced most of this country's *B-57* and B-52 jet bombers. I feel certain that text was intended to read "B-47" and B-52 jet bombers.

The B-57 is a Martin Aircraft product.

Judge C. Potts, Lt. Col., USAF
Air Force Representative
Central Region.

Chalk one up for the colonel. He scores an "A" in aircraft recognition and copy reading.—Ed.

• Flying In The Canal Zone

I read somewhere recently that the airspace restrictions over the Panama Canal Zone were modified by the FAA and Department of Defense. I may be flying in that area this fall and would appreciate knowing more about this.

J.S.M.

You are right. The restrictions were modified in order to improve the flow of civil air traffic in the Panama Canal Zone. First, an Air Defense Identification Zone (ADIZ) extending upward from 2,500 Mean Sea Level was established July 1 above the Zone and its territorial waters. Existence of the ADIZ will permit civil flights now routed around the Zone to transit the area, provided pilots file flight plans and make position reports as required by the Balboa Air Route Traffic Control Center.

In addition, some of the previously designated danger areas over the Canal, including those within the three-mile boundary, were rescinded, and others redesignated as restricted areas. Airspace below 2,500 feet will remain a military reservation where transient aircraft are prohibited except by permission of the military.—Ed.

• The Tax Man Cometh

At lunch the other day we got to talking about the wisdom of "dropping" exemptions on our income tax withholding statement. One man, with a wife and three children, said that he is claiming zero—not even himself. He said he did it because of the recent tax cut. A lot of the men agreed with him. It got me to thinking. I'm a bachelor with a small outside income. How can I make sure I'll be square with the tax people and not in the hole next April?

F.J.C.

The Internal Revenue Service is encouraging workers to take a close look at their salary and the amount now being deducted. It is advising, as a general rule, dropping one or more dependents because the tax rate was not cut as much as the withholding rate.

If you broke even last year you could come out $100 to $200 short next April if your income is in the $6,000 to $12,000 range. To play it safe, get a copy of the new tax rate schedule, Form 1040 ES (Supplement), from your Internal Revenue Office and estimate your 1964 tax. Compare it with the withholding now being taken out of your pay check. Each exemption you drop will increase your withholdings by about $95 per year.

Should the dropping of exemptions for withholding still not cover the gap between the amount of tax owed and the amount of tax withheld, you may go one step further. You may submit a memorandum to your payroll officer asking that an additional amount be withheld from your pay check to cover the gap, or even to assure you a tax refund. See your personnel office for details concerning your specific case.—Ed.

HIGH TALK AT PAGO PAGO

The completion of a new International Flight Service Station at American Samoa marked another forward step in aviation safety. The facility is the only IFSS south of the equator and the only FAA IFSS in another nation's Flight Information Region (The FIR referred to is administered by the Government of New Zealand). The dedication ceremony on May 25, at Pago Pago, placed side by side in sharp contrast the still almost primitive Samoan culture and the sophisticated technical aviation advances of the present day. Starting at top left and reading clockwise, Mrs. Robert I. Gale cuts a hibicus ribbon to officially open the station. Regional Director Gale and Island Governor and Mrs. Lee look on. • The new IFSS receiver control station at American Samoa decked in flowers for the dedication ceremony. • Boys and girls from the Poyer Junior High School dressed in traditional costumes and provided Samoan entertainment. • High Talking Chief Pele, S., listens as Air Traffic Specialist Emil C. Lohrke describes the facility operation. • On Samoa it was "FAA Day" and they came to help celebrate. • Jim Haines, Acting Area Manager at Samoa (right) officially receives keys to the new IFSS from Contractor Don Kincaid.

FAAers ON THE JOB

Karol Hommon

While this portrait doesn't show it, Karol is a secretary stenographer in the Program Control Section of the I&M Division in Alaska Region headquarters. She will, as "Miss Alaska," represent that state in the coming "Miss America" contest in Atlantic City in September. Miss Hommon, a 5-foot 5½-inch 120-pounder was earlier elected "Miss Anchorage." Karol added new luster to her crown during the Alaskan earthquake by working continuously at a local radio station for 36 hours answering telephones and broadcasting bulletins and other announcements and only took time out to serve at the Civil Defense Office on Easter Sunday.

Godfrey L. Dunmore

This studious looking gentleman spends his workweek in the eye of a paper hurricane and enjoys every minute of it. Mr. Dunmore, as headquarters Publications Officer, directs a crew of 21 whose primary job is keeping Agency employees and the public informed. In an average week his shop handles 237 jobs; some involving as many as 284,000 pieces of paper. To get the word out his section uses some 450,000 envelopes a month. A WW II veteran, he served throughout the European campaigns as a master sergeant in a combat engineer outfit. A fourth-generation Washingtonian, he and his daughter live in northeast Washington.