



### Flower Power

Nantucket Memorial Airport, on that picturesque island off the Massachusetts coast, is the latest to receive a certificate in the agency's Airport Beautification Program. Members of the Nantucket Garden Club, chiefly responsible for making it one of the nation's most beautiful airports, are congratulated by William E. Crosby, Assistant Manager, Boston Area Office.

## Controller Saves Man Aflame in Auto Crash

By Thom Hook

WEST SAYVILLE, N.Y.—For his quick response in rescuing a man from a burning automobile Oct. 10, ATC specialist John Lapine, Jr., of the New York ARTC Center at MacArthur Airport, has been awarded a Certificate of Commendation for meritorious service.

The collision of a small foreign compact car and a truck at a busy highway intersection caused the smaller vehicle to burst into flames. The driver was knocked unconscious and his clothing and hair were afire, with flames gutting the interior of the car.

Volunteer fireman Lapine forced his way into the blazing car and pulled the stunned driver out onto the road, where he used his coat to smother flames enveloping the victim.

While another fireman extinguished the fire with chemicals, Lapine administered first aid to the driver. Then he radioed for a fire department medical officer, police and an ambulance.

The accident victim is now recovering from second degree burns of the body and lacerations, thanks to Lapine's prompt, heroic action.

An FAA employee for 15 years, Lapine is active during off-duty hours in the West Sayville Fire Department.

For the second consecutive year, he has received the local fire department's Point Achievement Award. This means he is top man in attending the most alarms, county fire school classes, fire department drills, parades, meetings, fund raising activities and all other departmental functions.

As top fireman, it would seem FAA employee Lapine would not have much time left for other civic affairs, but he also is active in the Community Ambulance Company and is assistant director of the West Sayville Golden Eagles Drum and Bugle Corps.

Topping it all off, Lapine still finds time to enjoy his West Sayville home with wife, Marilyn, and their eight children.



### Top Fireman

For two consecutive years, John R. Lapine, Jr. (right), air route traffic control specialist at the New York ARTC Center, has received the Point Achievement Award as the volunteer fireman most active with the West Sayville Fire Department in his leisure time. Here he is congratulated by Herbert Bower, Chief Engineer.

## Astronauts Get 'Space' From ATCs

By Don Byers

MIAMI—When space triplets Schirra, Eisele and Cunningham thundered back into the earth's atmosphere at the conclusion of America's first three-man orbital flight, FAA air traffic specialists around the world helped give them a little extra elbow room, contributing to the astronauts' successful mission.

## Strange 'Living Clouds' Clutter Radar Screens

SAN ANTONIO—At first, controllers were puzzled by the strange blips sweeping across their radar screens. Some speculated the phenomena were caused by temperature inversion.

Then, judicious time and location correlation revealed that controllers were seeing huge "living clouds" of bats containing several million in one concentration.

Harry Crouse, operations officer for San Antonio Approach Control, said the bats swirl out of their caves in ascending funnel-shaped clusters and can be tracked on radar until they disperse. San Antonio controllers have tracked the nocturnal creatures on radar to as high as 13,000 feet.

They show up on the screens for approximately 30 minutes to an hour in the evening and morning—when leaving and when returning to their caves.

Major James F. Kinney, Ran-

dolph AFB flying safety officer, said Randolph has become so concerned that they asked Dr. Timothy Williams of the Wood's Hole, Mass., Oceanographic Laboratory to solve the problem. Dr. Williams said the major source of bats is Bracken Cave, located about 10 miles northwest of Randolph, a site unfortunately aligned with the approach for Runway 14L.

Though no crashes have been attributed to bats, a Twin Beechcraft had a bat strike, with one of the creatures lodging in the air intake filter. Two T-38s lost engines after ingesting bats. It is reported a

(Continued on page 7)



### Problem

Multiply the above bat by 40 million, and place that many in the air near the approach to a major airport and you have the dimensions of the problem now facing air traffic controllers at Randolph AFB.

(Photo courtesy Bureau of Sport Fisheries and Wildlife.)

## Tippetts Family Seeks Items For 'Joe T.' History

WASHINGTON—The family of Joseph H. Tippetts wishes, through *FAA Horizons*, to express its gratitude and appreciation for the many expressions of condolence received from throughout the nation following his recent passing.

They wish to express their appreciation also to all who have participated in the Joe T. Memorial.

The family has asked the agency to assist in gathering together narrative material, anecdotes and any other items that anyone may have for use in a family history and possible biography of Joe T.

All fellow workers of the former Associate Administrator for Personnel and Training throughout FAA who may recall a humorous or poignant moment with him are invited to participate in this project. When collected under one cover, these accounts of day-to-day associations with Joe T. will serve to inspire many others for years to come.

Some of the items may be humorous, while others may vividly illustrate Joe T.'s deep love for his fellow man, his devotion to God or his great pride in his service to the FAA and to aviation.

Any such recollections should be sent to Charles Warnick, Director of Information Services, Federal Aviation Administration, 800 Independence Ave., S.W., Washington, D.C. 20590.

Controllers at the Miami, New York and San Juan Centers, the Miami International Flight Service Station and other facilities around the globe took special pains to make sure commercial and private terrestrial traffic was out of the splashdown zone.

Active control of space flights and support aircraft is supervised by the Air Force Eastern Test Range at Cape Kennedy (better known as the Cape), the NASA Manned Spaceflight Center in Houston and the recovery team aboard the U.S.S. ESSEX. But it's the job of the FAA to notify U.S. air traffic facilities worldwide where launch and recovery zones are located and when they are closed to all traffic except NASA vehicles—including a conical, wingless capsule.

"NASA has numerous aircraft flying in the recovery area, and they have enough to do without looking for unexpected traffic," said Miami Center Supervisor William Leverett.

"Coordination on every space shot starts here and I've been at the center since the beginning. We work closely with NASA so we don't get aircraft mixed up with missiles, whether they're capsules, returning booster stages or simulated warheads."

### Get Set for Recovery Word

"The normal recovery area for the Apollo 7 mission began about 100 miles southeast of Bermuda," Leverett said, "and we had to have everything ready to put into motion when the Cape gave us the word."

The signal for clearing normal air traffic out of the manned capsule drop zone comes into the Mi-

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## Tower Man Calms Down Irate, 'Buzzed' Taxpayer

CONCORD, Calif.—When a very irate person calls with a complaint, the manner in which FAA handles the problem can build goodwill for the agency, as one irate citizen has testified.

All "put out" because he felt helicopters were flying below FAA-prescribed minimums when crossing his neighborhood, G. B. Olsen of Walnut Creek, Calif., called the nearest tower—the one at Buchanan Field here. Lloyd Falls, the supervisory controller on duty, answered.

"I was indignant," Olsen stated in a letter to Hervey Aldridge, San Francisco Area Manager. "In an irate tone of voice, I explained my problem to Mr. Falls. He was most diplomatic in fielding my complaint. He asked me to reserve judgment on the subject until he could look into the matter. And he

promised to let me know the results. I was pacified."

Falls investigated immediately, then called Olsen at his home to explain that a misunderstanding existed on the part of the firm operating the helicopters. He assured Olsen that the matter appeared to be resolved.

The businesslike, friendly manner in which the complaint had been handled left an indelible impression on the caller.

"My experience in registering a complaint with FAA is unquestionably the most satisfactory experience I have had in dealing with public agencies," Olsen stated. "In my opinion, Mr. Falls enhanced the image of the Federal Aviation Administration. The manner in which he dealt with my complaint is unusual in either a private or public organization."

## A Lifesaving Game of ...

# Hide and Seek

By Gene Kropf

Hide and seek may be a popular children's game, but to the FAA it's serious business.

When the FAA decided to play the game recently, it was done to demonstrate life-and-time-saving capabilities of emergency locator beacons designed to assist search planes in quickly locating downed pilots in our rugged western states.

For some time, the agency and other interested parties have been saying that having such a device aboard an aircraft could mean the difference between life and death. Assuming victims of an air crash survive the impact, it is important that they be located quickly. Time is of the essence. Weather conditions, wild animals and other dangers must be considered.

In the recent FAA test, conducted in the Aspen, Colo., area, an emergency beacon transmitting from a simulated lost aircraft was located in less than an hour. Veteran pilots participating in the test said the same "find" could have taken days or even weeks without the locator beacon.

Emergency locator beacons automatically broadcast chirping sounds on the aircraft emergency radio frequency. Transmission can be started manually by a switch, or automatically on crash impact. Signals can be received on standard aircraft radio receivers.

### Test Site Near Real Crash

J. Chester Shimp, in charge of FAA's "hide and seek" game, led the expedition ground party which planted the locator beacon in a box canyon 30 miles southeast of Aspen. It was placed in the same general area where Dr. and Mrs. Randolph Lovelace and their pilot died in a plane crash in December, 1965. Bodies of the trio were found two days later after an intensive air and ground search. Officials said at least two of the victims might have been saved had help arrived within a few hours.

This test was conducted to demonstrate the effectiveness of emergency position-indicating radio beacons and search techniques. Participating pilots were told only that a simulated lost aircraft was on flight plan from Denver to Aspen and that it had an emergency locator beacon. FCC approval to broadcast on emergency frequencies for a three-hour period had been arranged.

### Simulated Message Sent

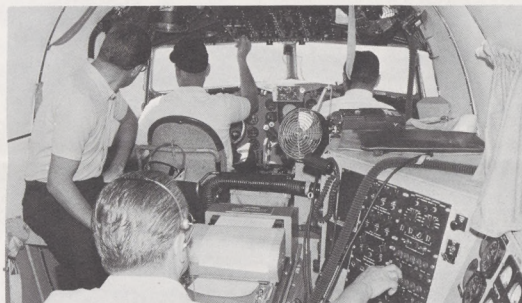
FAA pilots Earl Brooks and Bill Manus of the Denver FIDO office, assisted by Les Williams, flight inspector technician, were in the air west of Denver in a DC-3 when they received the simulated message that a light plane was missing in the Aspen area. They immediately changed course southwest toward Aspen and turned monitors of emergency radio frequencies to high volume.

About 25 miles west of Aspen and 45 miles from the crash site, the first faint chirpings of the locator beacon were picked up.

FAA pilots immediately instituted standard search

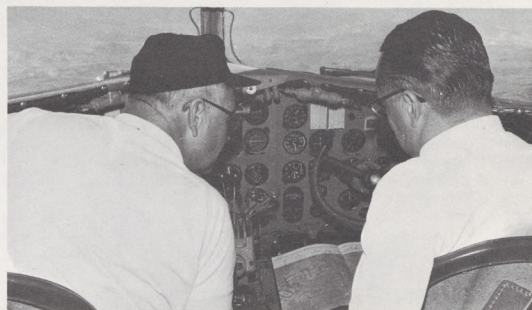


Chet Shimp (right) and officials of the company that manufactured the locator beacon hauled simulated tail assembly containing the beacon up the canyon and camouflaged it in the trees to make observation from the air difficult.



The "seek" part of the game gets underway as personnel from the Denver FIDO receive word that a plane is down. Pilots Earl Brooks and Bill Manus head for the area as technician Lester Williams readies his gear. On the jump seat is Bob O'Connell, from KWGN, Channel 2, in Denver, who was an observer.

As identifying signal from the locator beacon builds to maximum volume, Pilots Brooks and Manus check their charts to pinpoint the spot. The "hide and seek" game is over—and the FAA searchers have won it.



procedures developed for FAA Airways System inspection pilots to locate radio signals with flight inspection aircraft. The "hide and seek" game was underway.

The aircraft criss-crossed high mountain country east of Aspen executing search procedures and gauging the volume and tone of emergency signals. Finally, Brooks and Manus were satisfied they were "right on the button." Williams, at the observer's console, confirmed that instruments showed this was the area of the strongest signal.

### Tail Section Sighted

Fifty minutes after the search began, the crew sighted a simulated airplane tail section on the ground. They checked by radio with Chet Shimp and his party on the ground, who were watching silently at this point and verified they "had" the target.

A light plane piloted by Frank Swain, Denver Wing Civil Air Patrol Pilot, also located the beacon fifty minutes after receiving the first signal. His total time from take-off at Denver to identifying the lost

aircraft site was two hours.

In addition to FAA and CAP aircraft involved, another plane, aware that the test had been scheduled, joined the "hide and seek" project. It was piloted by Colorado Senator Peter H. Dominick, an experienced pilot and long an advocate of a regulation requiring aircraft to carry locator beacons. Senator Dominick, flying through the area on a business trip, had a receiver tuned to the emergency frequency. He, too, heard the distress beacon call and reported to FAA that he was over the beacon signal area 18 minutes after his search started. He, too, could have located the crash site and directed searchers to the spot.

In commenting on the successful test, Shimp said beacons tested were types that would broadcast "homing" signals continuously for about 48 hours in moderate temperatures.

He pointed out that the test was conducted in some of the most hostile terrain and believes almost any downed aircraft in the Colorado mountains could be located in that time if it had an emergency beacon operating.

## Three Honored for Duty in Vietnam

ATLANTA—The agency's new Vietnam Medal, awarded employees who served a year or more in Southeast Asia, has been presented to three Southern Region employees who have returned to domestic duty.

They are: Donald Givens, ATC Specialist, ARTCC, Miami; Henry Ibbetson, Chief, FSS-IFSS, Miami; and Kenneth Wood, electronics technician, AFS, Atlanta.

Givens, who has been with the agency 11 years, started as a trainee at the New Orleans Center. He served several tours of duty at the Miami Center, interspersed with duty at the Aeronautical Center in Oklahoma City as an instructor.

Prior to coming with the FAA, Givens had four years in uniform as a radar operator for the Air

Force. He was assigned to Saigon with the Technical Assistance Division of CAAG in May, 1966 and returned to the Miami Center as a controller on March 24, 1968.

Ibbetson served four years with the Marines before joining CAA-FAA in May 1939 at Vero Beach, Fla. In nearly 30 years with the agency, he served in the South, except for two international tours—to Saigon in 1961, where he spent more than two years and to Panama in 1965 as a communications specialist. In 1967, he returned as Chief of the Miami IFSS.

### Recollects Action in Saigon

Ibbetson remembers vividly the bombing of the president's palace in Saigon, only eight blocks from his own residence. He was shaving

at the time and the blast almost caused him to enlarge his "smile" from ear to ear.

When traveling by auto to various receiver sites, he recalls, it was standard procedure to close windows so Viet Cong could not lob in hand grenades. Most flights with the military, Ibbetson noted, were made offshore to avoid ever-present inshore small arms and anti-aircraft fire.

"Miami now seems tame, without the howitzer fire around the city perimeter which I was used to," he said.

Wood spent more than two years at various points around Vietnam after arriving there from his post as a systems analyst on ARTS equipment at the Atlanta AFS Airway Facility Sector. In Saigon, Da Nang and Bin Hoa, Wood assisted in installing and upgrading the ARTC Center's radar and other electronic equipment.

### Block Nearby Levelled

Being where the action is, Wood didn't escape the fireworks, either. During the Tet offensive, the city block adjacent to his location was leveled completely by enemy rocket fire. When seven Viet Cong attempted to destroy the Bachelor Officer Quarters in which he and other U.S. personnel were billeted, civilians and MPs stood off the enemy with rifle fire, killing three V.C. without loss to U.S. personnel. Wood returned to the Atlanta Sector May 25.

The Vietnam Medal is the agency's tangible way of thanking all employees who served for a year or more in that country since Jan. 1, 1962 for their work in a combat zone.



### Vietnam Medal

Chester Wells (left), Atlanta Area Manager, admires the medal he has just pinned on Kenneth Wood for service in Vietnam from March 1966 to May 1968. Wood now works in Atlanta as an ARTS Systems Analyst.

## Big 'Tee Party' Pulls in Throng From Wide Area

CHICOPEE FALLS, Mass.—The 10th annual golf tournament sponsored by the Boston Area drew 172 golfers from the Eastern Region and Canada.

Hosted by the U.S. 8th Air Force at Westover AFB here, the one-day tourney attracted golfers from Centers at Boston, New York, Cleveland and Washington, as well as the towers and stations at Westchester County, Boston, LaGuardia, Syracuse, Quonset Point, Otis, Rochester and Binghamton.

Also present was a contingent from the Montreal Centre (that's the correct spelling) and three Area Managers—Bill Cullinan, Boston; Chris Walk, New York; and Clay Hedges, Cleveland—all of whom found the par 72 course an unmanageable area.

Not so Fred Britton, however. Representing the New York Center, Britton finished his round with a one under par 71, low for the day. His sterling performance earned him the area trophy sponsored by the Eastern Region's four area managers. Britton also was awarded a putter for coming closest to the pin on the eighth hole.

Team competition saw the New York Center end a nine-year Boston Center reign with a convincing eight-stroke victory. The Boston Center team of Stan Masgay, Pat Filippelli, Paul Goodridge and Bob Bannister prevailed in the battle for the Boston Area championship, copping the crown for two years in a row. Another trophy went to Ron



### Business Goes On

During a recent emergency evacuation from the Fort Wayne Tower, Bob Bradow (left), set up temporary traffic control operations in a Piper "Cherokee" as Ralph Wagner assists with portable Gonset equipment.

Colletti and his Westchester Tower cohorts, who triumphed over Bob Lane's New York Center quartet.

As usual, the best golf of the day was played after dark at the 19th hole, where dinner talk made masters of duffers. Among those joining players at banquet tables were Wayne Hendershot, Deputy Director, Eastern Region; Ferris Howland, AT-2; Sid Poe, BOS-500; Walt Buechler, NYC-500; and Don Willis, CLE-501.

A highlight of the dinner was presentation of a special award to Leo Nangle of the Boston Center and Chuck Reich, 8th Air Force SACLO, who were chiefly responsible for arrangements. Nangle and Reich were ably assisted by Pete Doherty, Boston Center; Norm Tyler, Westover ATREP; Jim Rabe, AFCS Liaison Officer; and Irene Veneski, SACLO secretary.



### Friendly Enemies

While their respective teams battle it out for top honors on Westover AFB golf course, Boston Center Chief Clary Kynock (left) and New York Center Chief Jim Boyle play palsy-walsy for the camera.



### Honored

Acting Administrator David D. Thomas (right), congratulates James T. Murphy, Acting Deputy Director of the Bureau of National Capital Airports, upon his receipt of the agency's Meritorious Service Award in ceremonies held recently at Headquarters in Washington.

## Bomb Scare Evacuation Tests Emergency Plans

By Dave Myers

FT. WAYNE, Ind.—What had been a quiet, routine day at the Municipal Airport here came to an abrupt end recently when the airport manager's secretary was stunned by the words from an anonymous caller: "There's a bomb out there. When it goes off, it will cover a 40-50 mile radius."

She immediately notified airport police and the fire department who dispatched men into action. Tower and FSS personnel, along with other occupants of airport buildings, were ordered evacuated immediately.

Before shutting down equipment, the tower notified the Chicago Center that facilities were being abandoned temporarily. On the way out, Neal Rupert picked up Gonset equipment, a portable transceiver unit set to operate on the frequency which would enable them to maintain communications with local traffic.

Temporary equipment was first set up on the ramp in front of the tower. A short time later, a local fixed base operator offered use of the company's aircraft for communications and operations were moved to planes positioned in front of the operations hangar.

John Rogers hopped into a Piper "Cherokee," where he set up on Chicago Center frequency 124.1. Working out of a "Commanche"

was Bob Bradow, who took care of arrivals on 125.5 while the Gonset equipment was being used by Ed Dick on local control 119.1. Nearby, Roger Langdon used the communication equipment in a jeep to lend whatever assistance was needed.

The temporary, but efficient, operation was assisted by the Indiana Air National Guard which provided a mobile control truck to monitor VHF military frequencies.

The Captain of a United flight on the ramp advised he would stand by to provide any help necessary and a "Jet Commander" was also available for communications if a "backup" was needed.

With the communications capability of the temporary system, there was no confusion as a result of the tower evacuation. Although traffic control was not being exercised during the shutdown, use of the temporary system made it possible to keep pilots advised.

After nearly an hour of searching without results, police gave FAA personnel the green light to resume operations.

The incident served one useful purpose: it enabled controllers to try out emergency procedures under actual conditions. However, it is not an experience they are looking forward to repeating in the near future.



## HORIZONS

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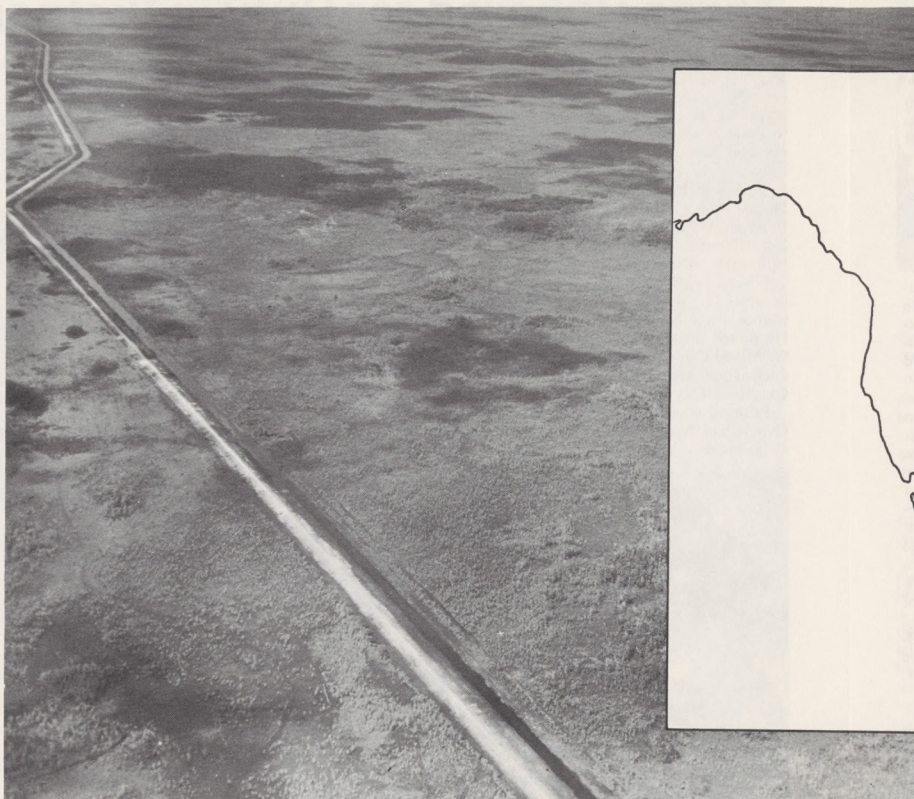
CLIFFORD CERNICK

GERNOT RASMUSSEN



Secretary of Transportation Alan Boyd, wearing Miccosukee Indian jacket, telephones a signal to a remote site in South Florida's Everglades to trigger charges of dynamite which "broke swamp" for a giant jetport being built by the Dade County Port Authority. Boyd is a former resident of Miami. The airport site is in territory that has been home to the Miccosukee and Seminole Indians for centuries.

(Photo courtesy Miami-Metro Dept. of Publicity & Tourism)



A green, lonely, alligator-infested "River of Grass" stretches flat as a table-top to the horizon from South Florida's "21st Century" site. Inset shows site's geographical alignment in Florida.

# From Swamp to 21st Century

By Gerrie Cook

In the heart of South Florida's marshy 'River of Grass,' draglines rip up eight-cubic-yard mouthfuls of swamp-mud as construction pushes forward on an airport designed for the 21st Century.

Work on the new airport started officially with a "swamp-blasting" triggered on signal from Secretary of Transportation Alan S. Boyd in his Washington office.

Now, the site for the huge new airport in the Everglades is a vast, forbidding swamp, inhabited only by alligators and birds of rich plumage. By October of next year, the first of two 10,500-foot runways will have emerged from the desolation.

A second runway is scheduled for completion before the end of 1970. An FAA tower and air navigation aids also are planned for the airport.

Initially, the jetport will be used strictly for airline training flights, diverting some 200,000 operations annually from busy Miami International. Ultimately, it will transition into South Florida's next-century passenger airport.

The new airport site is the world's largest—39 square miles. This is four square miles larger than the city of Miami, half again as large as Manhattan and one-half the size of the District of Columbia. All the runways at Washington National, Kennedy, Los Angeles International and San Francisco International could be laid down on the Everglades project with plenty of room to spare.

Why so vast a setting for an airport? The answer lies in modern long-range airport planning concepts and the deep and growing concern with airport area noise problems. The fact that 24,960 acres were available at less than \$150 an acre also helped.

Alan Stewart, Director of the Dade County Port Authority, sponsor of the new airport and other county and city officials see it developing into one of a network of super jetports in strategic world locations.

Stewart foresees the time when air travelers will reach their destination via orbital rocket flights.

"When that time comes, he said, "we'll have plenty of room to spare for launch pads."

James Rogers, Southern Region Director, believes the airport might one day become "an intercontinental hub for the Southeastern United States with regular schedules to major world capitals."

The problem of noise, of such compelling concern to airport planners, seems to have found its ideal solution here. The airport site lies in a vast, virtually uninhabited section of South Florida, and one which probably will remain undeveloped for the foreseeable future. Everglades National Park lies to the south. Four miles to the north is the Big Cypress Seminole Indian Reservation. To the east lies a 15-mile-wide flood control water storage area. To further insure insulation against future noise complaints, a "buffer zone" at least one mile wide will embrace the airport's periphery. A two-mile-long clear zone will abut runway approaches. Tracts lying within three miles of approaches will be rezoned to prohibit residential use.

Miami Area Manager Paul Boatman feels air traffic congestion will not be encountered.

"Because of the remote site and precautionary buffer zones, the location is ideal. Nobody will be close enough with reason to complain—except possibly alligators," he said.

Besides reducing congestion at busy Miami International, the new airport will solve crew-training problems plaguing airlines there. Because of noise considerations, no jet training is allowed at Miami International between 10 p.m. and 6 a.m. At the new airport, training will be allowed around the clock and very close to 365 days a year.

Although still in the long-range planning phase, rapid access to the airport when it becomes a major passenger hub is envisioned in terms of a futuristic "transportation corridor" slicing across South Florida from the Atlantic to the Gulf of Mexico with the new airport as its axis. Concepts being considered include monorail arteries to whisk passengers to population centers, lanes for hovercraft, electronic roadways to

move surface craft at very high speed, and vacuum-propelled, capsulized freightways. Extension of runways to as much as six miles also would be possible should future developments require.

All this 21st century planning is a far cry from the lonely, swamp site today—and yesterday when the area was inhabited by scattered bands of Miccosukees, Seminoles and earlier Indian tribes.

In a touching presentation at the groundbreaking, Buffalo Tiger, chief of the Miccosukee Tribe, welcomed the jetport as an economic boom to his people, though it erases ancient hunting grounds.

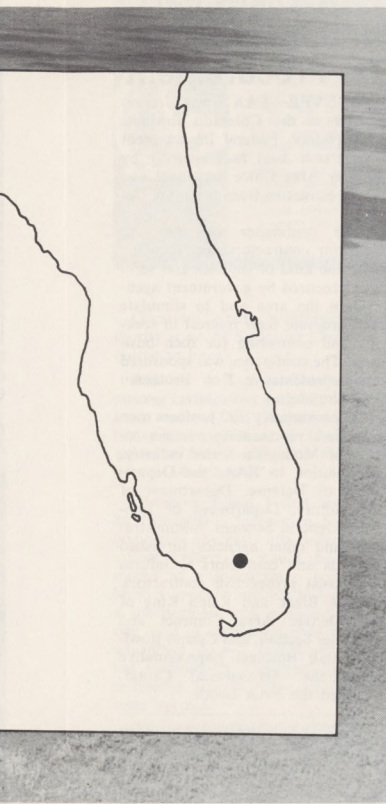
He was assured that nearby tribal ceremonial grounds, including the site for the annual "Green Corn Dance," would not be disturbed.

Other Indians present at the ceremony included Betty Mae Jumper and Joe Osceola of the Seminole Indian Nation.

Representing the FAA, which authorized a Federal Aid to Airports grant of \$500,000 in matching funds for the airport, were Southern Region Director James Rogers, Miami Area Manager Paul Boatman, Airports Division Chief Bill McGill and Miami Area Airports Branch Chief James Howes. Present from Airports Service in Washington were Max Bard, Chief of the Standards Division and George Borsari, Chief of the Development Programs Division. City, county and state officials and representatives of the airlines and airline industry also attended.

At present, draglines and dump trucks are being worked two 10-hour shifts daily to rush the first phase of the project to completion before the October, 1969 deadline. Construction crews are using converted swamp buggies, airboats and helicopters to get around.

Because a deposit of solid limestone lies a few inches below the swamp surface, very little excavation is required and a firm foundation is assured, allowing construction to go ahead at bargain cost on what can well be called the nation's, and very probably the world's, most remarkable airport project.



Florida's "21st Century" airport-to-be, now being built on



Craig Timmerman, Air Transport Association of America, speaks at groundbreaking for South Florida's futuristic jetport. FAA officials seated (from left) are: Max Bard, Chief, Standards Division, Airports Service; George Borsari, Chief, Development and Programs Division, Airports Service; and William McGill, Chief, Airports Division, Southern Region.



Airport engineers require unusual equipment to get around while building new supersonic airport. Their "swamp buggy" is a converted "Model A" modified to ride high off the ground and above ever-present swamp water. Oversize tires enable the buggy to plow through sticky mud, mire and thick grass covering airport site.



Sporting Miccosukee Indian ceremonial jackets, presented by Chief Buffalo Tiger during groundbreaking are (left to right): "Chief" Paul Boatman (Miami Area Manager); "Chief" James Rogers (Director, Southern Region); "Chief" George Borsari (AS-600, Washington); "Chief" William McGill (Airports Division Chief, Southern Region). Almost hidden behind Boatman is Miccosukee Chief Buffalo Tiger. Also almost hidden behind Borsari is "Chief" Max Bard (AS-500, Washington). Seated in shade at right is Betty Mae Jumper, Chairman, Seminole Indian Tribe.



Zippering along in his speedy airboat, an airport engineer surveys a portion of the 24,960 acres of Everglades swamp now being converted into Miami's Airport of the Future, about 36 miles west of Miami International.

## Documentation Facility Is Central 'Data Bank'

By James F. Williams  
NAFEC Librarian

ATLANTIC CITY—The National Airspace System (NAS) Documentation Facility was established at NAFEC in June 1967 as a part of the NAFEC Library to satisfy a need for a central source for NAS Documents. Under monitoring of the National Airspace System Program Office, the facility acquires catalogues and makes accessible documents concerning the ATC subsystem of the NAS.

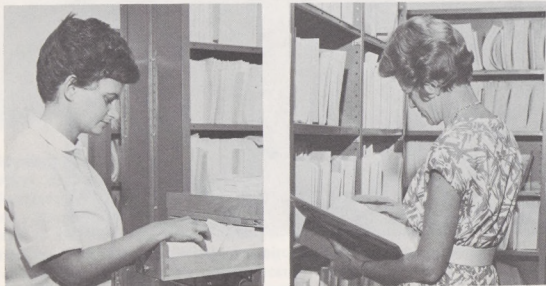
Documents processed include FAA and contractor-prepared technical reports, specifications, test plans, instruction books, handbooks and manuals. Each is analyzed and catalogued by subject, title, report number and equipment nomencla-

ture and is assigned a control number. Utilizing NAFEC computers, the facility publishes monthly catalogues of document holdings.

The facility already has on file more than 100,000 catalogued documents. Each month an additional 4,000 are received and 3,000 are dispatched to requestors. Requests come from scientists, engineers and technicians associated with NAS at all levels of the administration.

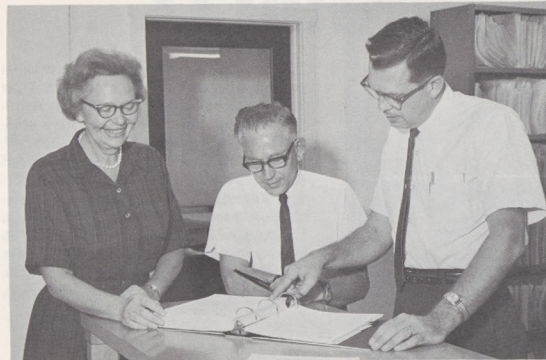
The facility is operated by a staff of four: Norene Copeland, Clarence Abbott and Elaine Shaw, under the direction of Eleanor Rogers.

Anyone requiring documents or the monthly catalogues should direct requests to: NAS Documentation Facility, FAA/NAFEC, Atlantic City, N. J., 08405.



### Researchers

Library technicians Elaine Shaw (left), and Norene Copeland research respectively the extensive card catalogue file and one of more than 100,000 catalogued documents maintained by NAFEC's NAS Documentation Facility.



### Located

Mrs. Eleanor K. Rogers (left), of the NAS Documentation Facility in the NAFEC Library, assists Rollo Beebe (center), and Gordon MacDonald in locating a document to be used in a research project.

## Flying Time Pinpointed

WASHINGTON—A study sponsored by the FAA Aircraft Development Service indicates that about half the private pilots (51 per cent) fly less than 50 hours a year and only 21 per cent fly more than 100 hours a year.

The study also indicates that almost half the private pilots (45 per cent) have less than 250 hours total flight time. Moreover, only 32 per cent have more than 500 hours and just 16 per cent have more than 1,000 hours.

These and other findings about the general flying habits of the nation's quarter-of-a-million private pilots are contained in a new FAA report, "Study to Determine the Flight Profile and Mission of the Certificated Private Pilot." The re-

port, prepared by Ohio State University under an FAA contract, is based on information obtained from a sample survey of non-instrument rated private pilots.

The study was undertaken to learn more about how private pilots use their aircraft and how complex an operation they perform. The ultimate objective of this and similar efforts is to assist FAA in developing an improved certification program.

The report, No. AD 675 818, is available from the Clearinghouse for Federal Scientific and Technical Information (CFSTI), Springfield, Va. 22151, at \$3.00. Orders should include title and "AD" number and a check or money order payable to CFSTI.



### System Observers

Two watch supervisors at San Angelo, Tex. CS/T get a lift from the Air Force to see what the other end of their work looks like from a jet aircraft. Merlin Hurt (second from left), and Wiley Burrus (third from left), are given familiarization rides in the supersonic T-38 "Talon" trainer by two pilots at Webb AFB, Big Spring, Tex.

## Frisky Horseless Carriage Shakes, Rattles Like New

INGLEWOOD, Calif.—It rattled and shimmed, coughed and snorted, but the 1914 Model T covered the parade route in good fashion, without once breaking down.

At the wheel of one of the most eye-catching "floats" in a recent "Centennial Days" parade here was Robert Bloom, a Western Region airport engineer. Beside him, dressed in the billowing, frilly costume worn by women around the turn of the century was Bloom's wife, Nancy. In the back seat were two other young ladies, similarly costumed.

The car was decorated to represent the original vehicle driven by the wife of the mayor of Inglewood back in 1908 when the city was incorporated. One of the young ladies in the car was the granddaughter of the city's first mayor. Mrs. Bloom, an employee of the

Airway Facilities Division in the Regional Office, located the ancient car in a farm building in Orange County, Calif. She and Bloom did most of the restoration work on the vehicle, but did receive some help on mechanical aspects of the job.

The float was entered in the parade by an Inglewood club composed of business women.



### Ancient—but It Goes

Bob and Nancy Bloom, both Western Region employees, occupy front seat of meticulously restored 1914 Model T, one of the more eye-catching floats in recent Inglewood, Calif. parade. The antique relic runs—and looks—"like new."

## Pilot Guided In To Safe Landing With Aid of DF

HURON, S. Dak.—During recent heavy thunderstorms, the flight service station here received a call from a VFR pilot in a Beechcraft "Bonanza" who reported he was in solid instrument conditions at 2,500 feet and that his last known position was 15 miles southeast of here.

Irwin Olson, Chief of the FSS, and Winfield Henry, FS specialist, noted station passage on the Direction Finder (DF) with the pilot affirming he was still in solid instrument conditions.

With the aid of the DF, the FSS proceeded to guide the pilot through the emergency DF approach to the runway. Although not IFR-rated, the pilot had enough instrument training to enable him to maintain control of his "Bonanza" throughout the ordeal.

When directed to turn in making his approach, the pilot stated, "It's hard to believe you, but I'll do it." The plane had to be guided to within a half mile of the runway before the pilot was able to see the runway lights.

Approximately 30 minutes after the first transmission, the grateful pilot made a safe landing, thanks to the use of the DF.



"This one 'save' alone more than paid for the cost of our DF," said Olson. "The pilot also liked the purchase."



### Brings 'em In

Irwin Olson (left), Chief of the Huron, S. Dak. FSS and Specialist Winfield Henry check the UHF-VHF Direction Finder which they used recently to guide a pilot lost in a heavy thunderstorm to a safe landing.

## DIRECT LINE

This is your direct line to the top! Your questions will get answers! Employees are encouraged to discuss questions with supervisors or their local personnel office, but for those who do not have ready access to a personnel office, this column will provide an opportunity to get questions answered. Send your letter to Acting P-1, Federal Aviation Administration, 800 Independence Avenue, S.W., Washington, D. C., 20590. Ground Rules: • All questions must be signed. • This column should not be used to supplant formal grievance and appeals procedures. • Questions should concern personnel and training policies, programs and procedures, not operational or technical matters. What's your question?

**Question:** What certification authority is an AFS Section Chief required to have?

**Answer:** A Section Chief must possess certification authority on at least one of the major systems under his jurisdiction. He is not required to have certification authority for all systems.

**Question:** When I first started, an Electronics Technician had to complete at least one advanced school before he could be promoted to a journeyman position. Now it appears possible to become a journeyman with experience on one kind of equipment only. What advantage does a technician who has successfully completed several advanced schools have over one who has not?

**Answer:** The grade of a position is determined by duties assigned to it. In order to fill a position, an individual must meet certain minimum qualification requirements. To possess qualifications over and above the minimum does not mean that the position should be upgraded; rather, it enhances the individual's opportunities for promotion to positions requiring performance of higher grade duties.

**Question:** In the June 10 issue of "Direct Line," I don't believe you fully explained criteria for establishing a leader or foreman position for Electro-Mechanical Technicians at the Airways Facilities Sector. Could you please give me further information?

**Answer:** Glad to. Each position is established and classified on its own merits. Its duties and responsibilities must be documented in the Position Description. Few Plants and Structures Units could generate a requirement for a wage board foreman (WS) at the Sector level because a foreman normally supervises crews that have their own leaders. A leader position (WL) might be justified when more than two skilled journeyman Wage Board positions are required by the workload. The duties of a wage leader position include performance of a share of the regular duties as well as the supervisory functions of directing the crew.

**Question:** When it can be determined in advance that a shortage of change-of-station travel funds may restrict selection of employees from other locations, is there a requirement on the part of the agency to include such information in the promotion announcement?

**Answer:** No. The area of consideration is established to assure that a sufficient number of qualified bidders are available to meet the needs of the agency.

**Question:** When travel cost is a limiting factor, does not management have the right, and would it not be more prudent, to reassign or promote an employee without competition rather than to destroy

confidence in the merit promotion system?

**Answer:** Management has the right to fill the position by reassignment, in which case, the vacancy need not be announced. Management does not have the right to promote a particular individual as an exception to merit promotion plan procedure simply because of a shortage of travel funds. In fact, it would be contrary to civil service regulations to do so.

**Question:** If an Electronics Technician does not hold the necessary certification authority, can his performance be rated satisfactory while, at the same time, Part V of the EAR shows that he is not working at an acceptable level of competence?

**Answer:** An employee may be given a Satisfactory rating even though he is not working at an acceptable level of competence. Acceptable level of competence determinations are based on performance standards for the position and the employee's performance in relation to the standards during the rating period. To be at an "acceptable level," an employee's work must clearly meet performance standards and be of a sufficiently high level to merit a pay increase. A Satisfactory rating, under the Performance Rating Act of 1950, covers a range of performance from almost outstanding to that which is just barely adequate to justify retention in the job. Therefore, a Satisfactory rating, in itself, does not mean that an employee's performance meets all of the standards to the point where a pay increase is warranted.

An employee filling a position requiring certification credentials is given a specified time in which to acquire the necessary credentials (see Certification Handbook 3400.3). If he does not acquire them within the specified time, he could not fulfill the primary duties of his job and would not, therefore, be performing at an acceptable level of competence.



### Female First

Louise Larsen, of Air Cruisers Company, Belmar, N. J., has been appointed an FAA Designated Manufacturing Inspection Representative (DMIR), the first woman to hold this position. As such, she acts for FAA in conducting airworthiness inspection of life rafts, life preservers and emergency evacuation slides manufactured by her employer.

## Robert Hacker, Top FSS Chief, Dies at Age 52

DENVER—Robert M. Hacker, Chief of the Denver FSS, passed away Sept. 27 at the age of 52. His service with FAA and predecessor agencies dated back to 1938, including duty at 13 Airway Communications Stations in the old Sixth Region.

During World War II, Hacker was a bombardier with the 15th Air Force and participated in missions over Italy, Germany, France, Yugoslavia, Rumania and Hungary. In 1945, he became Chief of the Yuma Communications Station, transferring later to Cedar City, Utah. In 1952, he became a Property Inspector in the Regional Office and in 1954 moved to Denver as Assistant Chief of the FSS.

Hacker served one term as president of the National Association of Air Traffic Specialists. He also was active in civic organizations.

He was Chief of the Denver FSS in 1967 when that facility received the National Air Traffic Facility Award. While Chief of the Denver FSS, he developed a color-coded weather board which cut pilot briefing time. He originated the Rocky Mountain Reporting Service which keeps radio contact with general aviation pilots traversing the area's high mountains.



Robert M. Hacker

## Strange Clouds

(Continued from page 1)

bat can rip out two or three rows of turbine blades in a T-38. A Randolph spokesman said a conservative estimate would be that 15 to 20 bat strikes occur during the heavy season.

Bats are at their worst during July and August, diminishing or beginning to show up again in spring.

They have their own built-in "radar" system, are sensitive to danger, but apparently have difficulty eluding fast-moving aircraft. Put in another way, bat navigation is not compatible with that used for air traffic control.

Getting rid of the bats might cause protests, especially from farmers whose fields they keep free of insects. One possible course of action is an Airmen Information Manual advisory, warning pilots in the San Antonio area to be on the lookout.

The problem is sure to become worse. The estimated 40 million bats in the San Antonio area are growing at the rate of two little bats per female per year.



### 'Hams'

W. O. (Bill) Todd, (seated), explains "ham" clubs' transmitting and receiving equipment to Lawrence Martin, Chief, Aeronautical Center Communications Section, (far left); Dale Rea, Superintendent, FAA Academy; and Doris Nichols, Assistant Public Affairs Officer.

## 'Hams' Move To New Home

OKLAHOMA CITY—The Center's Amateur Radio Club recently moved into new quarters in Building M and held open house.

The new home for FAA radio hams here allows more effective utilization of emergency and amateur radio equipment, according to the club's president, W. O. (Bill) Todd of the Planning and Control Branch, Aircraft Services Base.

The club's amateur radio station, W5PAA is a part of the Southwest Region's emergency communications network and supports the Center's Defense Readiness communications plan.

Organized in 1946, the club is self-supporting through membership dues and the Center book store, which the club operates.

In 1967, when Fairbanks, Alaska was flooded, the station was able to provide a link between flood victims and their relatives here. An example was the assistance given four Fairbanks students at the Academy who were anxious to find out whether their families had been flooded out. Commercial calls could not be put through so the Center's emergency communications team chief, C. C. Drumeller, was asked to assist. Station W5PAA was fired up, contact was made with Fairbanks "hams" and in a few minutes the students could be assured that their families were safe.

In February, the club conducted code and theory classes for FAA employee members and others preparing for the FCC amateur radio operator license examinations.

No charge was made for the instruction, which was provided by club volunteers Ed Mahoney, National Flight Inspection Division; Howard Ridgeway and Bob Jensen, Engineering and Production Branch, FAA Depot; and Ellard

Foster, Quality Control and Scheduling Branch at the Depot. Other Center employees assisted on a part-time basis.

Officers of the club and call letters are: W. O. Todd, president, W5UZX; Ellard Foster, vice president, W5VRV; and C. C. Drumeller, secretary-treasurer, W5EHC. George Lagaly, W5NTL, is station manager and Robert Ashby, W5-HXL, is technical chairman.

## Space

(Continued from Page 1)

ami Center via hot line from the Director of Range Operations at Cape Kennedy. He confirms pre-planned recovery area restrictions, or notifies the center of changes. Miami Center usually has about 24 hours advance notice. The Center then notifies the Miami IFSS, which puts a Notice to Airmen (NOTAM) on the international flight information circuit.

John Davis, acting Procedures and Planning Officer for the Miami Center directly coordinated the Apollo 7 mission, and phoned New York and San Juan Centers. The New York Center's Oceanic Control facility handled all air traffic in the part of the Atlantic where the primary Apollo 7 recovery zone was located.

"We started working on this shot about Sept. 23," Davis said, "and we've always got to be ready for the unexpected. If there are last minute changes, it's up to the Watch Supervisor on duty to make the decisions. He's the only one who has the full picture."

Manned space flights, of course, aren't the only traffic out of the Cape. Missile men of NASA and the Air Force keep Miami area ATC specialists on their toes with launches about once a week. When they involve unmanned missiles only, NASA personnel at the Cape contact the Melbourne, Fla. Flight Service Station, which issues a Notice to Airmen over the domestic U. S. flight information circuits. The Notice to Airmen is, in turn, picked up by the Miami International Flight Service Station for international relay.

Important as the FAA's job in America's space program may be, however, air traffic specialists directly involved rarely have a chance to watch a launch.

"We're about 180 miles away from the Cape," Leverett said. "Sometimes, late in the afternoon when the sun is close to the horizon, we get a glimpse of the missiles."

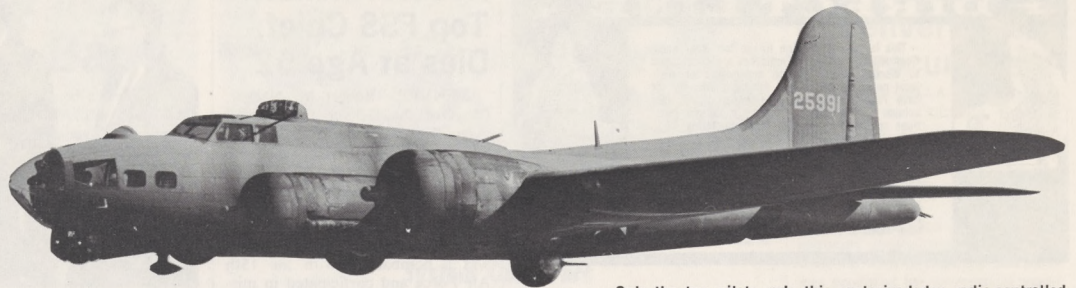


### Buy Seals

Marvella Bayh, wife of Sen. Birch Bayh of Indiana, introduces the 1968 Christmas Seals. Contributions to the Christmas Seal Fund finance voluntary Tuberculosis and Respiratory Disease Associations in their work.



Charles Shinault, now an ATC Specialist at Houston ARTC Center, still weighs about the same as he did back in World War II as a B-17 pilot with the U.S. Army Air Corps.



Another in our series of exciting true adventures of present-day FAAers . . .

Only the two pilots rode this explosive-laden radio-controlled "Flying Fortress." To Lts. Shinault and Haller, the plane seemed like a ghost ship, without any navigator, bombardier, flight engineer, waist gunners, ball-turret gunners, tail gunner or radio man.

(Photo courtesy National Air and Space Museum, Smithsonian Institution).

## Held as a Spy!

By Wes Kauffroth

Crew Chief, Houston ARTC Center

With 11 missions over Nazi Germany behind him, 22-year-old Lt. Charles L. Shinault began a fateful 12th, flying a deliberately-doomed B-17.

As he piloted the "Flying Fortress" toward its objective—Germany's all-but-impregnable submarine pens—he felt curiously alone. The other regular crew members usually assigned to B-17 missions were conspicuously absent. Only two persons were aboard, himself and another pilot he remembers only as a Lt. Haller who was also an electronics expert.

This plane contained a deadly built-in hazard: it carried more than 10 tons of a super-powerful, super-secret explosive. It was literally a flying bomb.

As he set cruising speed at about 160 m.p.h., he thought of flight crew friends he had lost through enemy fighter attacks, close formation collisions, deadly flak, bad weather, training accidents or combinations of all these.

Like all operational B-17s, this ship was patched up with parts from less fortunate planes and new replacement parts—when available. It was equipped differently from most of her 12,731 sister ships produced in the decade around World War II. The plane was rigged to be radio-controlled by a "mother" ship flying high overhead. Its bomb load was radio-fused. Accidental keying of the "explode" frequency would blow it to smithereens.

### Mission Highly Classified

The mission was classified, and he and Haller trained in their mysterious unit several months. The hush-hush organization was composed of a hand-picked complement of pilots and electronics technicians from the Navy and the Army Air Corps. (One was a dashing young Navy pilot known as "the Ambassador's son"—Joseph Kennedy, Jr.)

Their spine-tingling mission was to get the B-17s, straining with their 21,000 pounds of explosive, off the ground and on course for Europe. The "mother" plane then would take over and fly the pilotless B-17 to the target by remote control.

Shinault's job was to get the plane off the runway and onto its heading. Haller was to complete the electronic tie-up. Shinault would parachute out only after getting the aircraft firmly on course. After making the tie-up and when certain the "mother" plane was controlling their drone, Haller would jump. The interval between the two jumps would separate the two American Kamikaze-like pilots' landing spots by some 15 miles. (Shinault learned later that Haller jumped without incident and made his way back to his base. Because of the security-cloaked nature of the flight, he didn't inquire further and never saw Haller again.)

When the drone B-17 reached the area of England marked on their chart where Shinault was to jump and radio control had to be positive, he turned the plane over to Haller. A newly-invented TV-like camera was hooked up in the drone's nose, while the "mother" plane had a TV monitor on which crew members could follow and direct the drone from above, observing clouds, flak and whatever occurred in the drone's visual path.

Haller now had the plane, so Shinault jumped as

planned from 2,500 feet. It was the first (and last) time he hit the silk—and it didn't go quite as planned.

Shinault was slammed against the fuselage as he jumped and knocked senseless. He drifted downward, unconscious. Luckily, a static line from the plane triggered his chute. He regained consciousness at tree-top level.

While carefully rolling up the parachute and preparing to dispose of it and the extra parachute he carried, a problem of another sort confronted him. Allied soldiers had seen him jump and arrived to take him into custody. His two 'chutes (bomber crews customarily wore only one) and his paratrooper boots made him a perfect German spy suspect.

A knife he carried to cut away fouled shroud lines was another non-standard item which further incriminated him.

### Captured by Own Troops

The soldiers immediately took him into custody and brought him before a critique officer at a nearby base.

The intelligence interrogator asked Shinault such questions as: "Did your plane crash?" "How many persons were aboard?" "Did any more persons bail out?" "What caused the crash?"

As instructed, Shinault refused to answer, giving only name, rank and serial number.

The critique officer refused to believe the jump had been accidental.

Shinault pleaded with the officer to call the commanding officer at 3rd Division Headquarters, 8th Air Force. After what seemed an interminable delay, the fact that he was indeed an American pilot on a classified mission and not a spy, was confirmed. Shinault was promptly returned to his unit.

### Secrecy Ordered

Now he can reveal that the missions were so secret that the men flying them knew little about the outcome. Their job was to do as instructed, and keep their lips buttoned to prevent others and eventually the enemy from learning about the radio-controlled, expendable bombers.

They knew only that some bad accidents had occurred. They heard of the pilot-less planes getting within a few miles of their target only to be shot down by flak or fighters.

Trying to hit top-priority targets by crashing a drone on the bull's eye under direction of a "mother" plane flying at 17,000 feet was such hazardous duty that pilots taking part were credited with three missions for one.

After several tragic, unsuccessful missions, the organization was disbanded. Shinault returned to his former unit, the 96th Bomb Group, 3rd Div., 8th Air Force, and completed 35 more rough runs over war-battered Germany. He earned two Distinguished Flying Crosses.

Today, he is a popular and capable controller at Houston ARTC Center. Since completing his World War II service of four-and-a-half years, he has enjoyed a number of interesting hobbies . . . but skydiving is definitely not one of them.

"That one bail-out, and what happened afterward, was enough," he said emphatically.



Busy in "the green house" of the Flying Fortress, Lt. Shinault's job was to pilot the B-17 toward Germany's submarine pens, while Lt. Haller completed an electronic tie-up with a "mother ship" flying high overhead.

(Official U. S. Air Force Photo)



Shinault's B-17, once on course for Europe and the enemy submarine pens at 2,500 feet, was radio-controlled.



Lt. Charles L. Shinault is seen with his flight crew about two months after his harrowing classified mission. Shinault stands in the middle. (One crew member from his B-17 was not present for the photograph).