HORIZONS

Read About Storm-Torn Wake Island Page 4

Vol. 1, No. 9 | Published biweekly for the people of the Department of Transportation/Federal Aviation Administration | October 2, 1967

Over the Top

Administrator McKee expresses his personal thanks to every FAAer in Headquarters and the Washington field facilities for hitting 101 per cent of this year's Combined Federal Campaign goal by contributing $139,034. He is being congratulated by CSC Vice Chairman Ludwig Andolsek, Federal Drive Co-Chairman, as Associate Administrator Joseph Tippets, FAA drive vice-chairman, beams his approval.

APC Ceiling Lowered Over Busy Airspace

WASHINGTON — The agency has announced that it is lowering the floor of area positive control (APC) from 24,000 to 18,000 feet over the northeastern and north central United States, in order to assure safe separation of aircraft in this heavily traveled airspace.

The change takes effect at 12:01 a.m., E.S.T., on November 9, 1967. The geographic area involved covers approximately 24 per cent of the U. S. (see map) bounded roughly by a line from Presque Isle, Maine; south to Danville, Va.; west to Salina, Kan.; north to Minneapolis, Minn.; and back east to Presque Isle.

All aircraft operating in APC airspace are under the control of FAA air traffic control facilities. These facilities provide separation service so that each aircraft, in effect, flies in its own reserved block of airspace.

To operate in APC airspace, an aircraft must:

- Be flown under instrument flight rules (IFR) by a pilot with an instrument rating.
- Be flown in accordance with an air traffic control clearance at an assigned altitude.
- Have specified navigation equipment required for IFR operation.
- Have voice radio communicating equipment for direct pilot-to-controller contact on frequencies specified by air traffic control.
- Be equipped with a radar beacon transponder for augmenting ground radar detection and monitoring.

The agency began implementing APC above 24,000 feet on a nationwide basis in 1962, when the mixing of IFR and VFR traffic became inadvisable.

Flight Level 180

Here is the area that will receive Area Positive Control down to 18,000 feet beginning November 9. A proposal that would permit 'controlled' VFR flights in the new APC area is still under consideration.

ATC Job Study Is Continuing

CHICAGO—As a part of the effort to assure that classification standards properly reflect the work of air traffic controllers, the Civil Service Commission standards writer spent a week at the Chicago O'Hare tower talking' with controllers, observing their work and gathering facts.

The CSC representative also plans to visit the Los Angeles tower, Van Nuys tower, Moline C/ST, and the Cleveland Center and tower.

As part of the over-all study, regional/center directors have been asked to submit comments on air traffic control as an occupation. These comments include thoughts from area offices, air traffic facility chiefs and controllers themselves.

To Improve Passenger Chances

Agency Issues New Rules For Passenger Evacuation

WASHINGTON—New rules to improve substantially a passenger's chances of surviving an airplane crash have been announced by the agency.

The new crashworthiness and passenger evacuation standards for transport category airplanes will require extensive safety improvements in both airline equipment now in service and in designs of new planes not yet type certificated.

In general, the new rules take effect October 24, 1967. Large capacity jets, smaller, shorter range planes and other 'T' category aircraft not yet type certificated will have to meet most of the new requirements to qualify for type certificates, regardless of when original application for type certification was made.

Aircraft now in service, or already type certificated, will have to meet most of the retrofit changes required under the new rules by October 1, 1969. This lead time will give airlines enough time to make the required modifications. There are some required modifications which must be made within twelve to eighteen months. Several requirements must be met by October 24, 1967.

Stretched versions of current jet transports are likewise subject to the new rules.

For the first time, airplane manufacturers will have to demonstrate a 90-second emergency evacuation, using a full and representative passenger load, before they will be issued type certificates. Present FAA rules require the airlines to demonstrate passenger evacuation allowing two minutes for complete evacuation.

Under the new rules, carriers will have to conduct 90-second evacuation demonstrations whenever they introduce new or significantly modified equipment into service, or when passenger seating capacity is increased by five per cent or more.

Some of the improvements required to be made in passenger transports now in service are:

By October 24, 1967

- Ready accessibility of all emergency exits for passenger evacuation, regardless of the number of occupants present on any particular flight.
- All passenger seatbacks in upright position, for takeoffs and landings.
- Passenger briefing instruction cards on emergency evacuation procedures (located in pocket of seatback facing passenger) will de-

(Continued on pg. 8)

Serious Business

In timed tests to simulate how quickly passengers might escape after a crash, United Airlines employees leave a smoke-filled DC-8 Jet Mainliner and scoot down an emergency slide in record time. The aircraft was actually in a darkened hangar. New regulations cut complete evacuation time for such evacuations from two minutes to 90 seconds.

Texas C/ST Specialist Helps Disabled Plane Land After Accident

LONGVIEW, Tex.—What could sound better than a knowledgeable voice over the radio on a pitch-black night, when you're trying to pacify a bucking *Bonanza* which objects to your having clipped off two feet of its left wing?

To James H. Denman, his wife and 17-year old son shortly after midnight recently, the cool tones of controller T. M. Hollis coming through loud and clear sounded like a voice from heaven.

The drama in this east Texas sky was developing fast, with Denman pitting all his experience and skill against his almost uncontrollable single-engine aircraft.

Denman, a Nevada, Mo., banker, shortly after take off on a flight from Shreveport, La., to Dallas clipped the wing on what he thought was an antenna guy wire. In fighting to regain control of the plane, he made several turns and became disoriented.

Unable to operate the controls because of the physical force necessary to keep the aircraft airborne, he had his son radio the Fort Worth Center. Hollis, on duty at the Longview combined station and tower, was notified there was a *Bonanza* 'lost' in the vicinity.

By landmarks and omni bearings, Hollis pinpointed the plane over Marshall, 30 miles away. He assumed the pilot was inexperienced, because the pilot's son was operating the radio from the back seat. Also, he was not aware of the plane's structural damage.

Hollis 'talked' Denman to the airport, but he missed on his first approach because he couldn't turn loose the controls of the crippled plane to reduce power. Mother and son changed seats, and on the next approach father and son, working the controls together, made a safe landing.

Old time pilots joined FAA inspectors and controllers in praising the landing as miraculous.

Basnight Writes Aviation Column

LOS ANGELES—A new column on aviation affairs, written by Arvin O. Basnight, FAA Western Region director, has been launched by *General Aviation News* here.

The column in the regional bimonthly newspaper will cover subjects such as safety, technical developments, and FAA programs.

In his initial column, Basnight discussed the importance of airports to cities and the need for a unified approach in obtaining them.

The second in the series urged pilots flying over remote areas of the west to give FAA position reports in order to facilitate search and rescue efforts.

From Their Cabin High In The Sky They Trace Lost Clubs to History

By Clifford Cernick

SEATTLE—Their hobby is history—would you believe 50 million years of it?

The family of John A. Rogers, controller at International Airport here, vies to outdo one another when they join Dad in his spare-time quest, scouring the wild green Cascade Mountain area for fossil rocks from their own rustic weekend cabin. Clues they have uncovered give mute evidence of a dim bygone age, pre-dating human life on earth.

These clues told him that the Pacific Northwest was once a land of dense, lush and well-nigh impenetrable sub-tropical jungle.

For more than a dozen years, the family has been looking under rocks to see what's there. A good number of them bear outlines of strange leaves, and other plant life clearly imprinted.

Using a shovel, a pick, and a small knife for splitting open layers of rock, the Rogers family has uncovered fascinating geological and archeological finds.

They have turned up rocks on which palm tree segments and bamboo leaves are indelibly imprinted—remnants of trees no longer found in the Northwest.

"To find these ancient fossils, you have to climb up the slopes," he said. "Some of our best finds come from the rocky terrain of the 3,000 foot level."

In his many years of combing the Cascade slopes, Rogers has carted home several hundred pounds of unusual fossil. rocks.

"I seldom use these for anything," he said. "I just enjoy finding them."

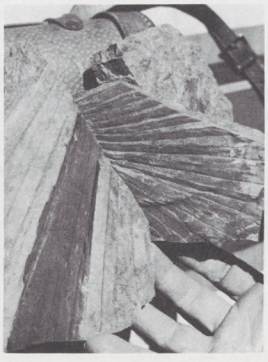
Another of the Rogers' hobbies is gold-panning and hunting mushrooms at their central Washington cabin. However, the most satisfaction, they agree, comes from figuring out the secrets the stones have to tell.

You Gotta Climb!

Rogers, Mrs. Rogers and a guest climb a rugged slope in search of fossilized relics of prehistoric times. Their best finds come from the 3,000 foot level.

Controller Relaxes

John Rogers, Mrs. Rogers and daughter, Sandra also pan for gold at their Cascade Mountain cabin site. They occasionally find small nuggets.



Explorer's Reward

Fossilized ancient palm leaves imprinted in stone tell of the dense sub-tropical jungle that was the Pacific Northwest. Controller John Rogers and his family learn history from rocks uncovered near their weekend cabin in central Washington State.

Up in the Air

John Rogers, controller at Seattle-Takoma International Airport, his wife Betty, daughter Sandra, and guest Sigrid Newman relax at the Rogers' weekend cabin before setting out to uncover fossils.

Man Says FAA Career "Tough But Rewarding"

SAN FRANCISCO—Fighting a blizzard to plow out a deeply-drifted road, sweltering in a road construction camp on the high California desert, transferring buildings from one place to another by truck at an agonizingly slow pace . . .

These are but a few vivid recollections of William G. Emett, motor grader operator here in San Francisco.

In March 1966, he was hospitalized with pneumonia. Later he developed a serious heart problem and was ordered on sick leave. He plans to retire next June.

However, he declares he's 'still on the job'—in memory, of course. Emett enjoyed his work so much he spent his spare time recently writing a lengthy, detailed chronicle of his 22 years with FAA.

He sent his recollections to Harvey E. Aldridge, area manager here. Aldridge considers Emett's story a vivid depiction of the work of a group (Structures and Grounds) little known in FAA.

In his 22-year tour of duty with the agency, Emett worked on roads and other construction projects in Arizona, Wyoming, Idaho, Nevada, Utah, and California.

"This may not seem like so large an area when you're covering it in a jet plane, but it's awfully big when you travel it moving heavy road equipment and working on numerous access roads as you go along."

Those early years, he feels, were tough going.

"On one of my first jobs, my supervisor was transferred and I was left alone on top of a mountain 65 miles east of Salt Lake City where we were building a road," he remembers. "It was freezing and snowing. The office said I could hire someone to help me but there was no one to be had. So I enlisted my wife to help me move some equipment."

The tapestry of Emett's work history is woven with the hundreds of miles of FAA roads he worked on.

"We built them, rebuilt them and repaired them," he recalls. "We cleared snow off them, and moved buildings over them. Once I hauled a plane by truck from Hill Field, Utah, to Santa Monica, Calif. We took the wing tips off but even so, the span was 18 feet. It took us three days."

On another occasion, Emett moved a building about 20 feet square from Death Valley to Reno over the highway.

"It was quite a chore," he said. "Traffic on the road and low overhead wires really gave us a bad time."

One project Emett will never forget is pushing a road through to a low-frequency range site on the salt flats near Wendover, Utah, in the dead of winter.

"It snowed heavily day after day—it was the winter of the heavy snows in Utah," he recalled. "We started the road in November 1948 and finished it in January 1949. The weather was so miserable, we lost track of the time. We just went out and worked whenever we had a chance."

Thankful that over the years he had prudently conserved his sick leave as valuable protection, Emett looks forward to the future with the pragmatic outlook that has characterized his life.

"I know I'll never get back to moving dirt again," he muses. "Now all I hanker to do is sit on a river bank where it's cool. Even when the fish aren't biting, man, that's nice."

Road Builder

Until William G. Emett developed a heart problem and had to go on sick leave, the veteran heavy-equipment operator had some bizzare experiences and many challenges while road building and doing other construction projects in the Western Region for over 22 years.

Stolen Aircraft Recovered By FAA's Mumford

SPOKANE—When the Fremont, Calif. Aero Club's plane was stolen one recent evening, the club president hastily notified the police and Ron Bernstein, GADO inspector at Oakland.

Bernstein quickly sent out a dispatch to other West Coast FAA offices, asking them to be on the lookout for the stolen plane.

The next day, the Spokane flight service station on Felts Field received word that a plane answering the description of the one stolen was being gassed up at a fixed base operator's station on the airport.

The FSS notified the sheriff's office and the Spokane GADO.

Dale Mumford, principal GADO inspector at Spokane, contacted the gas boy and urged him to keep the pilot in conversation until he could get there.

Mumford arrived at the fixed base operator's hangar simultaneously with the sheriff's deputies.

The 19-year-old suspect was arrested and turned over to the FBI, which has jurisdiction over cases involving the transport of stolen aircraft over state lines.

The club's thanks were extended to FAA offices which had made recovery of the plane possible.

N.H. State Officials Are Briefed By Bakke

NASHUA, N.H.—The impact air transportation has on community economics was brought to sharp focus when the State Aeronautics Commissions of Maine and New Hampshire, headed by Governor Kenneth M. Curtis of Maine and Richard Weston, representing New Hampshire Governor John W. King, conferred recently on state aviation growth at Boston Air Route Traffic Control Center.

Boston Area Manager William Cullinan, whose invitation prompted the interstate discussions, said this was the first time a meeting of two Commissions was hosted by and conducted on FAA premises. He added that growth trends in air transportation warrant a close and continuing exchange of views among aviation officials.

Representing Maine were: E. Grosvenor Plowman, chairman, Maine Aeronautics Commission; Scott Higgins, Commission Director; James Erwin, Attorney General; William Altenberg, Councilor to the Commission, and Dr. John H. Frederick, Director of Research for the state's Transportation Committee.

New Hampshire representatives included Captain Roger J. Crowley, Jr., Commission Director, as well as the New Hampshire Commission members.

The FAA contingent was led by former Eastern Region Director Oscar Bakke.

Bakke complimented state officials on their interest in air transportation matters, stressing the need for an awareness at all levels of government for a continued focusing of attention on aeronautical matters pertaining to airport development and traffic growth to meet aeronautical needs of the future.

Referring to traffic surges throughout the nation, Bakke noted that traffic increases in the northeast were approximately 25 per cent above the previous year—nearly double the national average growth rate.

Touring Down-easters

Governor Curtis of Maine (wearing headphones) and Scott Higgins, Maine Aeronautics Commission director (right) get a close-up view of en route air traffic control at Boston Center. Escorting them on their tour were Oscar Bakke, former Eastern Region director and William Cullinan, Boston Area manager.

Pressure Up!

Pert and wide-eyed Christine Leo listens as Herbert Aiwohi, flight engineer, points to levers he must adjust in order to keep the aircraft engines of the agency's KC-135 aircraft running efficiently on CAP flight.

Hawaii CAP Cadets Are Taken for Plane Ride

HONOLULU — Twenty-five cadets of the Hawaii Civil Air Patrol were literally 'taken for a ride' by the FAA.

The flight was given in support of Hawaii Wing's annual CAP summer encampment program. The aviation-oriented youngsters spent four hours in flight aboard the Pacific Region's *KC-135* N-98, while it was on a routine flight check mission up and down the Hawaiian Island chain.

"The flight," said Sherman Daugherty, chief of the Honolulu flight inspection group, "presented the cadets a wonderful opportunity to know the complexity and the thoroughness of our operation in assuring the accuracy of air navigation aids."

Later, 140 cadets were treated to an all-day field trip through six FAA installations, all located within the city limits of Honolulu.

The large group broke into smaller manageable groups for a round-robin tour of the center and FSS facilities in Diamond Head, the world-famed extinct volcano. They visited the tower cab, TRACON, and FSS facilities at bustling Honolulu International Airport, and went on to the Regional Headquarters building, overlooking the Ala Wai Canal.

Major Abel Huihui, CAP deputy camp commander, was highly pleased with the success of FAA's participation in their program. "After the tour," said Huihui, "the cadets were up all night, talking about the trip."

Those FAAers assisting in the orientation were: William Buckingham, Richard Davis, Robert Figueroa, James Holmes, George Hahn, Richard Kawasaki, George Kam, Kenneth Fisher, Joseph Chambless, Albert Loo, Joseph Hao, William Ranger, Dr. Casimer Jacinski, Gilbert Kawamae, Joseph Morin, Deanna Miller, Sherman Daugherty, Marion Davis, Kenneth Hatton, Herbert Aiwohi, Walter Wasierski, and George Hiatt.

PC's Public Affairs officer, George Miyachi, coordinated the arrangements.

Little Surplus Remains After Alaska Search

ANCHORAGE, ALASKA — Remember Grandma's attic, filled with hoop skirts, humpback trunks and old racoon coats? During the recent Operation Shape-Up, a drive to dispose of excess property, none of those turned up. But a few strange items *did* emerge.

Among nostalgic memorabilia unearthed were: a hand-powered vacuum cleaner, a gasoline driven washing machine with a wooden tub, several steel barrels of still useable cement, abandoned by the contractor who built the airstrip in 1941; and a home made crystal radio set of uncertain vintage.

The Region disposed of $1,320,000 in excess property in fiscal 1967. The cleanup and disposal project was christened by Brig. Gen. John R. Kullman, USAF, deputy director here.

Last Call

Carol Yamashiro, Alaskan Region clerk-steno, makes a final ring on one of ten old wall phones found during a recent drive to dispose of excess property. These and other obsolete items were among surplus products unearthed, bringing excess property saved in fiscal 1967 to $1,320,000.

Points With Pleasure

James Cancro, FAA supervisory electronics consultant, points out more advanced FAA communications control systems contained in the new prefab control tower at U-Tapao Air Base, Thailand, to Col. Robert Kuehn, Bangkok, Thailand. Cancro recently supervised communications control system installations at Vietnam air bases.

Salt Lake City FAA Man Is President of Local Jaycees

SALT LAKE CITY — Robert Svee, of airway facilities here has been elected president of the North Salt Lake City Junior Chamber of Commerce. He joined the organization in 1965.

His list of accomplishments include: election as a director in November 1966, editor of the first North Salt Lake Jaycee newspaper in 1967 and the Wasatch District paper in 1967, and recipient of four Jaycee awards.

He helped build Mathis Park and to bring the first community Christmas tree to North Salt Lake. One of the projects most important to Svee, and the North Salt Lake Jaycees, is work on the Opportunity Center. This is a school for physically and mentally retarded children. The Jaycees have worked on the playground and landscaping for the past four years and they are currently installing a sprinkler system, planting more lawn and building a fence.

HORIZONS

FAA HORIZONS, the official employee publication of the U.S. Department of Transportation, Federal Aviation Administration, is published biweekly by the Employee Information Division, Office of Information Services, FAA, 800 Independence Ave., Washington, D.C. 20590. Telephone: WO 2-5575. Articles of general interest to employees should be submitted directly to Regional FAA Public Affairs Officers: George Fay, Alaskan Region; Robert Fulton, Eastern Region; Jack Barker, Southern Region; Joseph Frets, Central Region; K. K. Jones, Southwest Region; Eugene Kropf, Western Region; George Miyachi, Pacific Region; Edwin Shoop Jr., NAFEC, and Mark Weaver, Aeronautical Center.

Administrator	WILLIAM F. McKEE
Deputy Administrator	DAVID D. THOMAS
Director, Office of Information Services	CHARLES G. WARNICK
Chief, Employee Information Division	W. BRUCE CHAMBERS
Associate Editor	THOM HOOK
Art Director	GARY D. SMITH

At Storm-ravaged Wake . . .

The Task is to Rebuild

WAKE ISLAND—With the unexplainable human spirit that seems to rise to gargantuan proportions, when needed, the people on this isolated Pacific outpost 2,300 miles southwest of Honolulu are cleaning up after the furious typhoon that struck there Friday, September 15th. It was the worst storm in 15 years.

While there were no deaths and only minor injuries when Typhoon Sara's 160-mile winds and roaring waves whipped across the three islands that make up this tiny coral atoll, a fourth of Wake's population was evacuated and the damage was heartbreaking.

With the tower and other facilities in shambles, the FAA people began the backbreaking work of restoring aviation service to this vital link in the supply line to Vietnam.

In Honolulu, Pacific Region Director Phil Swatek headed a special task force made up of key members of the regional office staff and the Air Force who remained on duty night and day to evacuate personnel and to airlift supplies to the island.

With the help of a temporary tower flown in from Alaska, air service has begun to return—certainly not to normal—but to a remarkable extent.

To the FAAers on Wake, and to their families who have been temporarily separated from them, we take off our hats to a spirit that defies simple words.
You are to be congratulated for a simply splendid job.

Wooden structures, mostly owned by Pan American Airways, didn't fare too well. Heaviest damage to family housing was to those located along the beach. Families living there lost most of their personal possessions when rain, winds and high waves demolished their homes.

Shortly after the fury of the last devastating blow, a lone, barren tree stands starkly against the sky after Typhoon Sara had decorated it with sheet metal from quonset huts.

Tower Chief Bob Bailey (left) and crew begin cleanup of the damaged tower cab. Bailey checked the cab after the initial high winds passed over Wake and found it had survived. But 160-mile winds that followed the lull of the typhoon eye blew in all the windows and extensively damaged the equipment inside.

Mrs. Rita Masters and her two sons, Mike, 10 (left), and Rusty, 6, receive assistance from a volunteer Red Cross worker at Hickam Air Force Base in Honolulu after being evacuated on an FAA aircraft.

Dr. Ted Vento, FAA dentist, was proclaimed one of the heroes of Typhoon Sara. Checking on neighbors during the lull when the eye of the typhoon passed across Wake, Dr. Vento and members of his family found three women and 14 children trapped and unable to get out of a home in which the water was rising rapidly. As the water climbed as high as their waists, he cleared a doorway and rescued the women and children.

Pacific Region's N-98 KC-135 brings in the first planeload of Wake refugees. The Air Force and the Coast Guard also participated in shuttling the 510 Wake dependents to Honolulu.

Mrs. Prudence Flowers, with baby Timmy, and Mrs. Glady Olson wait for assignment of temporary shelter at Hickam Air Force Base in Honolulu after being flown from Wake.

Peruvian Jungles Prove Unforgiving

By Gerrie Cook

LIMA, Peru—Banking the little *Cessna* steeply to the left so he could get a good look down, Bob Hettema was relieved to see a small group of people waving happily from the edge of a jungle clearing.

"Good! They're still safe," he breathed to himself as he went through his landing checklist and set up his approach for a wet landing on the Urambamba River, deep in the Peruvian jungle.

As his floats slicked into the river he couldn't keep a flicker of a grin from coming across his face—he'd hacked another flight with dead reckoning over 200 miles of jungle so thick that even Tarzan would need a guide.

Bob Hettema is a specially-trained pilot for JAARS—Jungle Aviation and Radio Service—which is a support organization for the Summer Institute of Linguistics, a U.S. missionary and linguistics group based at Yarinacocha, Peru.

He had flown to this village of the Piro Indians to pick up a linguist, Joyce Nies, who had been away from Yarinacocha for months.

Yarinacocha is the Institute's principal base in Peru, and aviation is the lifeline for 130 Americans who live and work at this remote jungle location.

The base is only 350 miles northeast of Lima and a two-hour trip by air. To reach there on the ground during the dry season (May to November) takes about two days over the Andes Mountains. During the tropical rain season, the trip takes about 21 days of rugged travel over muddy roads, washouts, landslides, and the like. Even by air, delays run into days because of runway conditions at the jungle airport—a sea of mud during the heavy rains.

Devoted Missionaries

Institute members and their families devote their lives, as a team, to teaching our national culture and basic concepts of Christianity to the 33 Indian tribes scattered throughout the Peruvian jungles.

But for the Jungle Aviation and Radio Service, there would be no way to provide emergency assistance to these missionary-linguists or to the tribes they serve.

JAARS is made up of a group of pilots and mechanics, *par excellence*. Heading the group are Director Omer Bondurant, Chief Pilot Leo Lance, and John Mishler, chief of maintenance.

At present, the group has eight pilots who also hold A&P mechanic certificates, five A&P mechanics, and one design engineer, Edward Broman. Like other Institute members, all aviation personnel are Americans who hold U.S. airman certificates.

They operate two *Cessna* 180's, two *Cessna* 206's and three *Helios* (short takeoff-landing type aircraft), all float-equipped. The group also has four *Helio* land planes, a *Norseman*, and a *PBY Catalina*.

JAARS started with the donation of a *Grumman Duck* from the U.S. Navy mission to Peru. Their first pilot was a woman—former WAF pilot Betty Greene.

Despite Yarinacocha's jungle environment, it very much resembles a small bit of America transplanted. Members, when living on the base, have comfortable American-style homes, facilities, and equipment.

Life away from Yarinacocha, however, is a different story. The linguists and their families live and work for months at a time with their tribes in isolated villages. There are some 170 native teachers, 150 bilingual schools, and 5,000 students scattered throughout the 45 to 50 villages in the vast area.

Without aviation, the entire program would virtually wither. Medicines and medical teams are flown to villages, and emergency patients are flown from these remote spots to the base physician or to a distant hospital.

All pilots carry emergency medical kits, administer injections, and consult with both patient and doctor. They also fly the linguists, language helpers, teachers, and students to and from the villages.

The jungle area in Peru served by JARS is comparable in size to the U.S. eastern seaboard from Main to Florida. Because of the difficulty in clearing and maintaining landing strips, float-equipped airplanes are used. Refueling points established at two-hour flight intervals are replenished by boat or by the *PBY Catalina*.

FAA Plays Big Part

FAA's major role in this total picture is not regulatory, but one of service. An FAA International Field Office is located at Lima, but since there are no regularly assigned Flight Standards maintenance personnel at the Lima IFO, FAA maintenance and avionics inspectors from the Miami air carrier district office routinely make inspection trips into Peru about once a month. These inspectors not only assist FAA representative Louis Kalusche in his duties relating to scheduled American Flag Carrier operations. They also help JAARS personnel when they have problems with new radio equipment, aircraft modifications, or maintenance procedures.

All JAARS pilots must undergo rigid training for their jungle flying. Chief Pilot Leo Lance, an FAA designated examiner, supervises this training. However, before pilots are permitted to join JAARS, they must undergo preliminary training at the University of Oklahoma. Advance flight training is completed at their headquarters in Warhaw, N.C.,

They are required to have commercial pilot ratings before assignment to JAARS. Single engine seaplane, multi-engine land and sea ratings are usually deferred until they reach Yarinacocha.

Their jungle flight training includes verbal and written examinations, local seaplane flying, en route training, etc.—all based on FAA standards. These exacting standards cannot be compromised. In the wilds of Peru, jungle terrain and rivers all look pretty much alike, and maps are far from accurate. Radio navigation aids are non-existent.

Maintenance standards are just as exacting. JAARS high airworthiness standards are expertly guarded by John Mishler, chief of maintenance, who is also an FAA authorized inspector. There can be no short cuts here for the Peruvian jungles rarely offer a second chance. A forced landing can mean weeks or months of rigorous surface travel to return to base.

JAAR's safety record is a monument to its high operational and maintenance requirements, all modeled after FAA-approved standards. In its 20-year history, JAARS has never had a fatal accident.

What Caused this Record?

How has this been possible in this environment?

According to Merle Hunter, Flight Standards branch chief at Miami, who only recently worked with these people while serving as FAA chief advisor at Lima, these jungle fliers insist on exacting and elaborate preflight checks. Their 25-and 100-hour maintenance inspections are even more detailed than would be found in the U.S. They conduct continual training in flight techniques. No night or IFR operations are permitted.

Rigid deadlines are established and must be met before pilots proceed past pre-established check points en route. If bad weather develops, a return to base is absolutely required.

Their deadlines are set up to permit sufficient time for them to return to base or to proceed to an alternate before dark. An alternate is always required for each flight. Higher-than-minimum FAA standards are maintained in every maintenance and operational area.

Their 20-year safety record proves the soundness of all these 'super-standards.'

The agency can take pride in its role in assisting these people who are setting an example for the entire aviation world, under the most difficult and dangerous conditions.

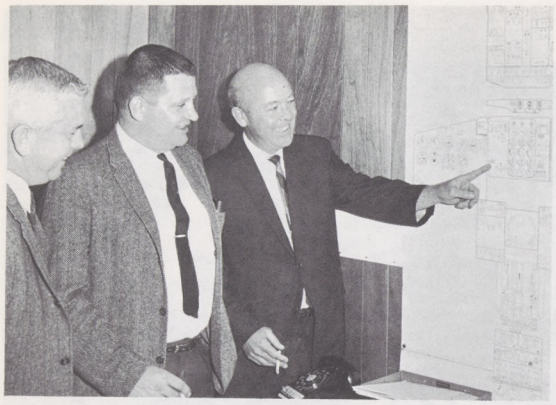
FAA's Merle Hunter extends a hand of welcome to Joyce Nies, Institute linguist, on her return to home base after a months-long stay with the Piro Indians, whose village is on the Urabamba River, 200 miles south of the Yarinacocha base. She is accompanied by three of her students and the pilot, Bob Hettema.

FAA Flight Standards Branch Chief Merle Hunter (right), Miami Area Office, takes a close look at a float strut bracket modification with JAARS design engineer, Edward Broman. Any structural modifications on JAARS aircraft are made to conform with FAA airworthiness specifications.

Omer Bondurant (left), director of the Jungle Aviation and Radio Service and Leo Lance, chief pilot, shown here in the cockpit of their 'PBY Catalina' aircraft, follow up closely with all JAARS flight and maintenance personnel to insure that their exacting standards are met at all times. Their 20-year safety record without a single fatal accident is proof their methods work.

Several of JAARS' jungle fleet on line for routine maintenance and inspection at Yarinacocha. This base is located 350 miles northeast of Lima. Without aviation, the Summer Institute of Linguistics, based here, would be virtually isolated from the outside world.

A JAARS float-equipped 'Helio' aircraft awaits inspection just outside the jungle maintenance base at Yarinacocha.

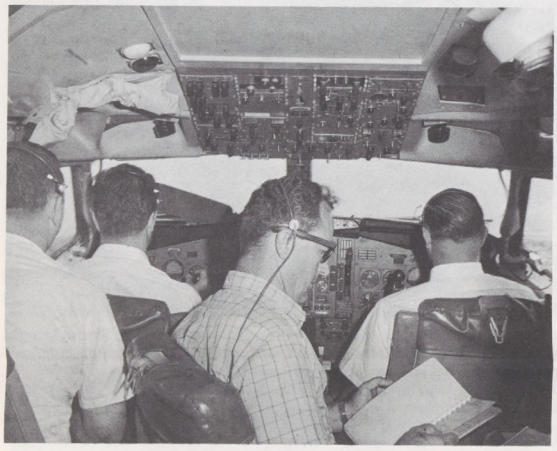


Jet Mentors

Broad flying experience is represented by these three inspectors assigned to the Los Angeles air carrier district office. They have a combined total of more than 42,000 flying hours. From left, they are: John McCormick, Robert Young, and Ellis 'Ed' Estes.

How Did It Go?

Robert Young, FAA air carrier inspector (right), discusses check flight with (left to right) Pacific Southwest Airline training officials Jerry Smith, Ray Keough and captain-applicant Alexander S. Oranski. P. S.—he made it.



Bird House

The cockpit of an airliner is a busy place during a check flight. FAA Inspector Robert Young (left) observes the blind-flight hood work of Pacific Southwest Airlines (PSA) captain-applicant Alexander Oranski. In center is PSA's —Jerry Smith, flight engineer, and in the co-pilot seat is airlines' training executive Ray Keough.

Boeing 727 Checkride is Exacting

Jet Pilots For Nation's Airlines Have To Prove Themselves Experts

SAN DIEGO—The Boeing 727 was within five knots of touchdown speed, 15 feet above the runway of Ontario International Airport in Southern California and everything set up for a landing.

The FAA inspector, seated directly behind the pilot, said calmly, "The runway's clobbered."

Smoothly, the pilot applied maximum power, and the plane began to climb again.

This test of a pilot's ability to cope with an emergency—simulated in this case—represents only one phase of the check flights conducted by FAA air carrier operations inspectors.

In this case, Robert Young, of the Los Angeles air carrier district office, was checking the proficiency of Alexander S. Oranski, who hoped to pilot one of Pacific Southwest Airlines' new jets.

After the 727 landed at Ontario, Young turned to Oranski. "That's fine," he said. "You gave a good ride. Do you want to get out, stretch and have a smoke?"

With a relieved grin, Oranski unhooked his seat belt, slid the seat back and climbed out.

A company training official noted Young's 'thumbs up' and grasped Oranski's hand. "Congratulations. You're now a 727 captain for PSA."

For Oranski, this was a long-awaited milestone in his aviation career.

Rigid Checks for Air Safety

For Young, it was the completion of another careful, rigid check so closely tied with FAA's mission of air safety.

The broad experience in aviation that FAA air carrier inspectors bring to their jobs is illustrated by Young's flight record: he has logged more than 14,000 hours. This is not unusual. The two other inspectors in the Los Angeles office assigned to PSA—John F. McCormick and Ed Estes—have 13,000 and 15,000 hours, respectively.

Most FAA inspectors have considerable military experience. Young took Navy flight training in 1942 and spent 11 years as a Marine Corps pilot, including a tour of duty in Korea flying F9F Grumman *Panthers*. He's been with FAA eight years, and has been jet transport qualified since 1962.

All airline pilots must demonstrate their proficiency in a check flight with an FAA inspector before being given a tvpe rating for a particular type of aircraft.

Twice a year thereafter, the airline itself conducts proficiency checks. FAA inspectors sit in as observers in about 50 per cent of these.

Prior to the flight, FAA inspectors conduct oral checks, usually lasting more than two hours. These include detailed discussion of each indicator light, each instrument, and each system on the big jets.

Pilot Must Know Systems

"We must determine whether the pilot is thoroughly familiar with everything in the cockpit," Young said. "He doesn't have to know where every wire and fitting is located—as does a flight engineer—but he must have complete knowledge of each system and each back-up system. He must know what every indicator on the instrument panel does—or does not do—in case of malfunction."

Young never takes notes during certification rides. "Every time you bring out a pencil and paper, the applicant thinks he's goofed."

FAA inspectors in Young's office reject less than 10 per cent of the pilots they check.

"In this airline, for example, pilots are usually in the right age group—no green youngsters and none over 50. The average age of their new captains is 35."

Though FAA maintains a courteous, friendly attitude toward applicants, pilots being checked sometimes tense up.

"Once in a while an applicant gets such a case of 'Inspectoritus' he can't even remember the time of day," Young said. "I usually try to talk with them a little before we get started and make them feel at ease. We'll crack a few jokes, and I try to find out a little about their backgrounds. I try to impress them that we're neither policemen nor supermen. All we want is a good, proficient briefiing and a good professional flight."

And this is what new airline captain Alexander Oranski delivered on his check flight—typical of the thousands of such flights conducted each year throughout the

Amature Rocketeers Blast-off at 400 mph

by David H. Myers

MANKATO, Minn.—The Ninth Annual Model Rocket Championship meet was held recently at the municipal airport here and attracted rocket enthusiasts from throughout the country. Sponsored by the National Association of Rocketry (NAR), and hosted by the Zenith Section of the NAR under the direction of Dr. Ellsworth Beetch of Mankato State College, the meet hosted a hundred members of the NAR from 10 States. One came from Czechoslovakia to participate in the model rocket competition.

The airport remained open during the meet, and four spotter stations were established at various locations to look out for aircraft. Radio contact was maintained between spotting stations and launch control at all times.

Harold C. Hartley, inspector from the Minneapolis GADO, was on hand to monitor the event. With the exception of a couple of misfires, all activities went off smoothly.

During the five-day meet, approximately a thousand models were launched. These rockets, ranging from one to two feet in length, are usually made of paper tubing with balsa wood nose cones. Propelled by commercially manufactured solid fuel engines, they reach heights of more than a thousand feet and speeds between 300 and 400 mph. When the rocket reaches its peak, a parachute is released and the rocket returns to ground for re-use.

The model rocket competition consisted of several events. They were judged on the basis of duration of flight, accuracy of scale, parachute duration, boost gliders, altitude, payload, spot landing, aerospace systems, and research development.

NAR officials estimate that some nine million model rockets have been launched since 1940, and at the present time there are between 250,000 and 300,000 individuals engaged in model rocketry.

Nashville Club Has First Solo

NASHVILLE — James 'Junior' Ayers, Nashville tower crew chief, lost his shirttail to fellow controller and flight instructor Cecil Hart in the traditional ceremony marking Ayers' first solo flight recently.

The shirttail cutting also marked a red letter day for Federal Flyers, Inc., a newly organized flying club. The club was organized this spring, and Ayers' solo was the first for a member. The Federal Club is rapidly expanding, already boasting 18 members, 12 of whom are student pilots.

Members look forward to purchasing the club's second airplane in the near future.

ATCer Retires

ATLANTA — After nearly 25 years' active air traffic control work and possibly the longest tenure as journeyman controller in the Southern Region, Eleanor M. Sanchez has put down her 'mike' and is turning full attention to homemaking for her husband.

Eleanor began her career during World War II with the former CAA. In 1958, 'Dan Cupid' caught up with her, and she married her co-worker, Noel Sanchez, Watch Supervisor at the Center. Because of agency nepotism regulations, she transferred to Atlanta Tower. At retirement she was a journeyman controller at the TRACON here.

Strange Snowy Owl Flies 'Where? Where?'

By Cliff Cernick

EUGENE, Ore.—"Who? Who?" may be standard 'owl talk,' but the real question controllers at Municipal Airport here want answered is "Where? Where?"

They can't help wondering what has become of the large speckled, beady-eyed owl which adopted the airport for a while recently.

G. E. 'Jerry' Coldeen, chief of the combined station and tower, said the bird stayed at the field more than six weeks.

"He was a beautiful bird, with a wing span almost five feet," Coldeen said. "During the day, he liked to roost on our remote transmitter antenna tower at the north end of the field. At night he would perch on our high-intensity light standards, probably enjoying the warmth."

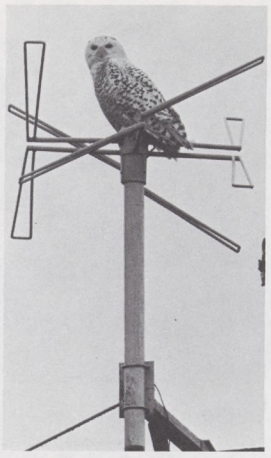
Day after day, the owl could be seen at the field, surveying the world placidly through large yellow eyes with jet dark pupils.

Some mornings the bird roosted on planes along the parking apron. At other times it could be seen skimming along the edge of the airport at weed-top level, scouting for mice.

Bird experts classified the winged visitor as a species known as the Snowy Owl. Its ordinary habitat is the Arctic's frozen tundra. When food becomes scarce, this type of owl is known to travel extremely long distances. Some have been seen as far south as the Caribbean, and one banded in Cambridge Bay, Canada, flew 3,500 miles—to Sakhalin, in the Soviet Union.

After a local newspaper ran a photo of the bird, Coldeen got numerous calls and visits from curious townspeople who wanted to see it. But almost as though it was annoyed by the flurry of interest it had caused in this quiet Southern Oregon college town, the snowy squatter bird departed.

Now the FAA controllers want to know: "Where? Where?"



Tower Hootenany

This rare species of Arctic owl was a much-heralded visitor for six weeks at the Eugene Airport recently. By day he roosted on the remote transmitter antenna. By night, he was warmed by perching on high intensity light standards. (Photo by Paul K. Petersen)

Electronics Technician Successful

FAAer Realizes Ambition To Be Airline Inspector

By Frank King

LOS ANGELES, Calif.—Time, work and talent are required to qualify as an FAA air carrier electronics inspector.

George MacArthur knows. He has been working at it and for the FAA since 1958. Now 35 years old, he started out as an electronics technician at the regional aircraft maintenance base here. This summer he was promoted to air carrier electronics inspector at the air carrier district office in Burbank.

George's career in aviation and electronics goes back to 1953, when he entered the U.S. Navy. He became an aviation electronics man, 2nd class, and flew in combat as radio/radar operator-navigator on B-26 aircraft during the Korean action. Stationed at Atsugi Naval Air Station in Japan, he flew with Navy Squadron VU-5 between Japan and Korea.

After his release from the Navy, MacArthur attended Fresno State College and majored in physics. He started to fly in 1958 while attending college and earned his private pilot's license.

In his new job, George inspects electrical-electronics systems on air carrier aircraft. He now works with Bonanza Pacific States and Mercer Airlines.

Air carrier inspectors insure that aircraft electrical and electronic systems are properly installed, maintained, and calibrated. When new systems are installed, inspectors must pass on the entire operation.

MacArthur goes on periodic route checks to actually observe and approve the air crews operation of electronic and electrical systems.

His job also takes him to electronic maintenance shops to evaluate the performance of technicians. He issues repairman certificates to technicians employed by the airlines so they can do maintenance work on electronic components.

"I came to work for the FAA by accident," George explains. "I was working for North American up at Fresno, and a bunch of contracts were not renewed. The FAA had some electronics technician positions available, so I applied and was accepted."

George and his wife, Barbara Ann have seven children, four boys and three girls. His house is coming out at the seams, so he is building another bedroom on his home in Inglewood.

The garage, as MacArthur's house, is well used. He has built an efficient workshop, where he spends a good portion of his off-work time. He and a partner, Joe Balara, an ex-FAA'er, are partners in an inventing enterprise. They have patents on several possible commercial inventions. One is a control unit and portable power supply for commercial motion picture camera equipment used on location. The two creative technicians are also working on an electronic smog device.

MacArthur is an active amateur radio operator, also. He has a mobile rig in his car and holds an FCC 2nd class radio operator's ticket, with a radar endorsement.

George MacArthur's career with the FAA has been highlighted with a Sustained Superior Performance Rating and letters of commendation from FAA superiors and from military people at Hill Air Force Base, Utah. The frosting on his career cake came recently when he was presented with a $160 award for an employee suggestion.

Ponton de Arce Suffers A Fatal Heart Attack

LOS ANGELES—An eary pioneer of air traffic control, Leroy Ponton de Arce died, September 11th in Santa Monica, at the age of 67. He retired from FAA on July 3, 1963, when he was chief of the Western Region's Air Traffic Division.

Ponton de Arce's greatest contribution to civilian aviation came when he and a partner formed the Air Traffic Control Corporation, sponsored and supported by the four major airlines. He and his partner founded and developed the first airways traffic control system, through which the Federal Aviation Administration, in a sophisticated way now assists the flight of civilian and military aircraft throughout the world.

One of his most outstanding achievements was his wartime work in setting up the 'Northwest Route' from Great Falls through Canada and the Yukon to Alaska. Over this 'Pipe Line to Russia' flowed a constant stream of airplanes and supplies. The route later became the Alaskan Wing of the Air Transport Command.

A native Californian, Ponton de Arce was the pilot of the first combination passenger/air mail night flight ever made in the United States—a flight from Boston to New York, for the old Colonial Air Lines, flying a Fokker Tri-Motor. This flight marked the founding of the present American Airlines Corporation.

As chief of operations for New England Air Terminals, Inc., he supervised the management of a chain of airports along the Eastern Seaboard. He operated his own flying school and aircraft agency in Boston, and also served as test pilot and demonstrator for Bellanca Aircraft Corp.

His career with the CAA started in January 1937, when he introduced air traffic control to the San Francisco Bay area, established the Oakland Air Traffic Control Center, and became its first chief.

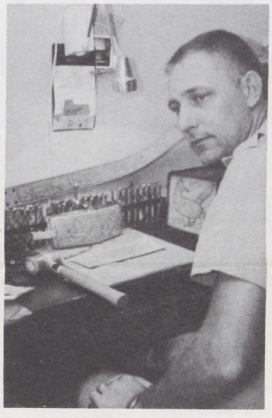
In 1939, he was appointed air traffic control coordinator of both the 6th and 7th Regions, and in 1946 was made chief of the Air Traffic Control Division in the 6th Region.

ATC Pioneer Succumbs

Slides Completed

OKLAHOMA CITY — To promote aviation safety, the Central Region, in cooperation with the Aeronautical Center here has developed audio-visual slide programs for general viewing.

The first, "Learning by Accident," was originally developed by Lee Mills, of the Helena, Mont. GADO and subsequently re-narrated by the Academy.



Tooling Around

Controller Gerald E. Chapman unwinds from the demands of his job at Houston Center by creating beautiful leathercraft products. He says, "It's mostly for fun, since there's little or no cash profit."

Alaskan's Son Selected For ROTC Honor

BIG DELTA, Alaska—Gary Hall, son of Don and Zelma Hall of the FAA station here, has been selected by the U.S. Army to receive a four-year ROTC scholarship to the University of Montana. Chosen from among 12,000 applicants throughout the Nation, Gary will receive a complete college education and a commission as a 2nd lieutenant upon graduation.

His nomination was based on his academic excellence, extra curricular activities, high physical standards, results in his college entrance examination and his motivational and leadership potential.

Aviation figures high in Gary's long-range plans. After graduation, he intends to enter the Aviation Branch of the Army as a helicopter pilot. According to Gary, his interest in aviation is a direct result of spending his youth on FAA stations in Alaska.

Electronics Okay?

George MacArthur (left), FAA air carrier electronic inspector, discusses air carrier maintenance job sheet with a mechanic from Mercer Airlines in Burbank, Calif. Part of his job entails issuing repairman certificates to airline technicians so they can maintain electronics components.

No Problem!

The many outstanding awards he has received is proof that David Glazer finds the loss of part of his left leg hardly any problem at all. He is a supervisor in the Eastern Region's accounting division.

Software Smoothy

Although totally deaf, Charles R. Harper has received an Outstanding Performance Rating for his work as a computer programmer in Washington Headquarters.

Platemaker

Walter Irwin Parks, an Ektalith operator at NAFEC, has absolutely no difficulty making precision plates even though his leg is off above the right knee.

Award Winner

After General McKee, center, presented him with FAA's "Handicapped Employee of the Year Award" James A. Kruegar proudly shows his plaque to everyone as Mrs. Kruegar proudly looks on.

They Do Excellent Work

Hire the Handicapped . . . it's good business

You say, "What a nice person he is!" Probably you know someone who does a perfectly splendid job—even though he suffers some sort of mental or physical handicap.

He may just very well work with you because, throughout the agency, there are more than 900 employees who, while officially designated "handicapped", certainly perform in a first-rate un-handicapped way.

The FAA believes in the current popular slogan—"Hire the Handicapped . . . Its good business."

We hire them, use them, think highly of them, and know that they make a contribution to air safety that is most valuable.

And . . . we intend to do more hiring of the handicapped. This is 'Employ the Handicapped Week' throughout the nation and the FAA, in its continuing program to *hire* and *admire* the handicapped, will again give special recognition to the exemplary efforts of the physically handicapped.

Spurred by this specially-designated week, the agency again will select the 'Handicapped Employee of the Year'. Each Region and Center has been asked to name one of its handicapped employees as its nominee for the honored award.

Have you a friend whom you know that is handicapped and does a particularly good job? Suggest him for the award.

But, whether your friend wins or not, we all know that we count them right in there with the very best.

Hiring the handicapped *is* good business . . . FAA proves it every day.

On a VW Frame

Atlanta Staffer Builds New Plywood Automobile

ATLANTA — Everett Ross, Southern Region staffer, has just completed one of the knottiest projects since the wooden horse created that historic traffic jam in Troy. The enterprising procedures specialist in Atlanta's Flight Standards aircraft management branch has constructed a wooden automobile that not only meets all requirements of Georgia's Motor Vehicle Division, but averages 28-30 miles per gallon of gasoline.

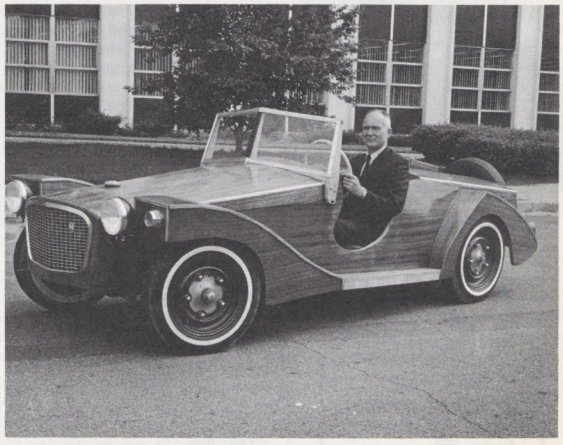
Costing him $550 in cash and two and a half years of spare time, Ross's 'go-crate' is a veritable kinetic woodcarving. He estimates that at 50 cents an hour, the finished product would have cost about $5,000. It is insured for half that amount.

His car-building idea, Ross said, came from the November 1964 issue of *Mechanics Illustrated,* but he modified their plan somewhat. Built on a 1958 Volkswagen frame and equipped with a standard VW engine, the body base is constructed of two-by-four fir timbers and ¾-inch plywood. The exterior is covered with ¼-inch Philippine and Honduras marine-grade mahogany plywood, sealed and finished with weatherproof epoxy.

The two-seater roadster has rolled and pleated bucket seats, upholstered in gold leatherlike vinyl plastic and trimmed with silver-beaded cording. The discriminating sports car enthusiast will approve of the 'four-on-the-floor' transmission. It has standard instruments and lights. A snap-on canvas top is now being fabricated.

Ross's son, David, likes the car so much he has traded his motorcycle to his father for the sporty roadster, which he hopes to drive at college this year.

His trade with David, Ross confessed, did carry one stipulation: "When you come home next spring, every single splinter had better be in place!"



Woodmobile

Everett Ross drives his mahogany sports car by Southern Region headquarters in Atlanta, where he is a procedures specialist in Flight Standards. Ross built the automobile in two and a half years of his spare time.

Evacuation Rules Issued

(Continued from pg. 1)

scribe only the specific type aircraft.

By October 24, 1968

• Better access to overwing exits, by eliminating interference from seatbacks in the immediate area of the exit.

• Cabin linings with self-extinguishing properties for improved resistance to fire. Planes not yet type certificated by October 24, 1967, will have such materials installed before leaving the factory. Airline transports now in service which do not already have interiors with self-extinguishing qualities must have them in after this date with their first major cabin overhaul or refurbishing of passenger cabin interior.

By April 24, 1969

• Restraints for stowing carry-on baggage, to prevent baggage from creating a hazard in the event of an accident.

By October 1, 1969

• Automatic self-supporting, 10-second slides from each floor level exit in the cabin higher than six feet above the ground; (slides manufactured on or after October 24, 1967, will have to meet new standards calling for automatic inflatability in not more than 10 seconds after actuation).

• Slip-resistant and clearly marked escape routes from each overwing exit.

• Emergency lighting control switch installed in passenger cabin for operation by flight attendants —this to be an additional switch to one now installed in pilot compartment. This requirement also applies to planes not yet type certificated.

• All floor level exits must meet new emergency exit requirements.

Champs Named

OKLAHOMA CITY — Two FAA Depot Engineering and Production Branch employees were recently named Economy Champions by the Civil Service Commission. Champs Darrell H. Dye and Paul E. Twigger suggested that the Depot discontinue purchase of kits used to update the Model 28 teletypewriter.

Since the kits contained many unneeded parts, Darrell and Paul reasoned that purchasing individual parts would save the Government many thousands of dollars. The exact savings amounted to $14,250.50 and qualified them for the Government-wide CSC honor.

Agency Course Taught Officers At Gunter Base

MONTGOMERY, ALA.—A. M. Stapf, FAA liaison officer, is adding a new dimension to his duties at Gunter Air Force Base, Ala. Stapf is now regularly conducting a 30-hour course on the Federal Aviation Administration at this Air Defense Command base near Montgomery.

The in-depth study of FAA is being presented to classes of new Air Force intercept directors assigned to the 32nd Air Division of the SAGE Direction Center at Gunter.

The FAA course is designed to explain the integration of ADC fighter-interceptor aircraft into the agency's air traffic control system.

The success of Stapf's first course is reflected in a recent letter from Captain H. R. Bethea, chief of SAGE training at Gunter, which reads, in part, "Our increased training requirements for these intercept directors has placed a tremendous load on our division training branch. Mr. Stapf has been a tremendous aid to our program through his excellent course on the FAA and its role in air defense."