

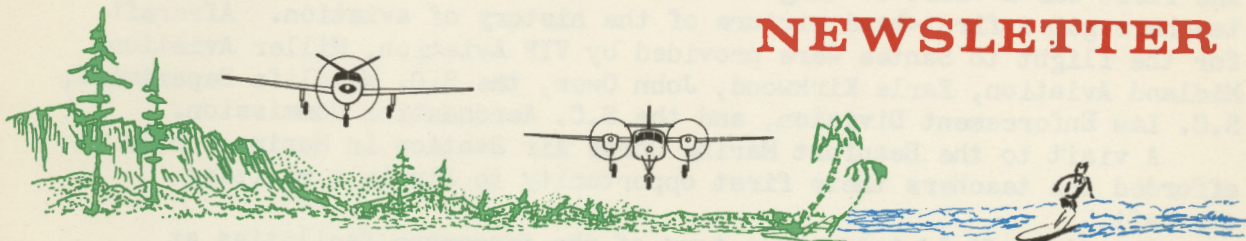
# SOUTH CAROLINA



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# AVIATION

## NEWSLETTER



PUBLISHED MONTHLY BY THE SOUTH CAROLINA AERONAUTICS COMMISSION

G. C. MERCHANT, JR., DIRECTOR

J. F. BARRY, ASSISTANT DIRECTOR

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### AVIATION EDUCATION WORKSHOP

Twenty-nine public school teachers were awarded certificates upon completion of the seventeenth annual Aviation Education Workshop. The Workshop was held at the University of South Carolina, School of Education, and was sponsored by the S.C. Aeronautics Commission.

Scholarships for the course were awarded by the sponsor.

The course, which was directed by John F. Barry, Assistant Director of the Aeronautics Commission is designed to give the teachers an orientation in all phases of Aviation and carries three semester hours credit at the University.

Three field trips were conducted during the three week Workshop. The first was a visit to Wings & Wheels Museum at Santee, where the teachers got a first-hand picture of the history of aviation. Aircraft for the flight to Santee were provided by VIP Aviation, Miller Aviation, Midland Aviation, Earle Kirkwood, John Owen, the S.C. Wildlife Department, S.C. Law Enforcement Division, and the S.C. Aeronautics Commission.

A visit to the Beaufort Marine Corps Air Station in Marine C 47's afforded the teachers their first opportunity to fly in a military aircraft.

The final field trip was a tour of the Aerospace facilities at Cape Kennedy. Transportation for this trip was furnished by the U.S. Air Force, Washington, D.C.

The following teachers were awarded certificates: Mrs. Jo Frances Auld, Columbia; Mrs. Nancy S. Aull, West Columbia; Mrs. Betty H. Baker, Columbia; Mrs. Martha G. Bodie, Columbia; Mrs. Ruth B. Boozer, Swansea; Mrs. Mary E. Boylston, West Columbia; Mrs. Martha S. Caldwell, Columbia; Mr. Lee S. Cloaninger, Hopkins, Mrs. Virginia S. Cloaninger, Hopkins; Miss Anne Dickert, Batesburg; Miss Wilhelmina Douglass, Columbia; Mrs. Elizabeth G. Edgar, Columbia; Mrs. Lilas Franklin, Camden; Mr. John E. Griffin, Columbia; Mr. John N. Helms, Columbia; Mrs. Irene Hinson, Columbia; Mrs. Sara B. Lesslie, Columbia; Mrs. Sarah H. Lineberry, Spartanburg; Mrs. Doris F. Marsh, Hopkins; Mrs. Ethelind W. McIntosh, Columbia; Mrs. Anita B. Metcalf, Camden; Mrs. Jeanette G. Outten, Columbia; Mrs. Beverly M. Ozburn, Columbia; Mrs. Evelyn B. Renfrow, Columbia; Mrs. Edna Romey, Columbia; Mrs. Mary C. Rose, Hopkins; Mrs. Patricia A. Sanders, Columbia; Miss Harriet M. Smoak, Bamberg; and Mr. William M. Thornton, Jr., Columbia,

Outstanding speakers for the three week course were: Mrs. Betty McNabb, Albany, Georgia; Capt. W. W. Owen, Eastern Air Lines, Atlanta, Georgia; Fred Brown, Delta Air Lines, Atlanta, Georgia; W. J. Reynolds, Shaw Air Force Base; Frances Miller, Miller Aviation, Columbia Metropolitan Airport, Columbia; Jack K. Barker, Atlanta, Georgia; J. Hampton Manning, Director of Airports, Augusta, Georgia; Major Peters, Fort Jackson; John Purvis, Weather Bureau, West Columbia; A.D. Yawn, Southern Airways, Hapeville, Georgia; Philip Geary, Trans World Air Lines; Mr. L. F. Hembel, S.C. Helicopters, Saluda; and C.B. Smoak, S.C. Aeronautics Commission, Columbia.

The teachers were awarded certificates of completion at a luncheon at Henry's Restaurant on August 7.

WRITTEN EXAM

The following letter concerning FAA Written Exam is from Joseph H. Crouse, Chief, Flight Service Station, Florence, South Carolina.

The purpose of this letter is to acquaint candidates for airmen written examinations with new appointment procedures for taking examinations at the Florence, South Carolina Flight Service Station.

We will continue to administer all written examinations that we have offered in the past; however, we must have prior notice as to the date and time an examination is requested.

An appointment may be made either by letter or telephone. If by letter, please write for the appointment at least seven (7) days in advance to allow time for us to confirm your request.

We trust this procedure will prove advantageous to airmen in the area by providing a firm time for their examination.

NEW OPERATOR FOR HILTON HEAD

Island Aviation, Inc. has been awarded the contract to operate the Hilton Head Airport. Island Aviation is owned by Ed Jungemann who for many years has owned and operated Savannah Air Service at Travis Field. Savannah Air Service has earned an excellent reputation as a fixed base operator and we feel that Beaufort County has made a wise choice in selecting Ed to operate Hilton Head Airport. Island Aviation will provide the area with aircraft sales and service, flight instruction, air taxi, air ambulance service, and charter in addition to 80 and 100 octane and jet fuel.

A new administration building is under construction and should be completed this fall. The ramp area will be doubled in size and a new taxi way will be constructed.

Murray Snyder, formerly with South Atlantic Airlines, is now with Island Aviation, Inc.

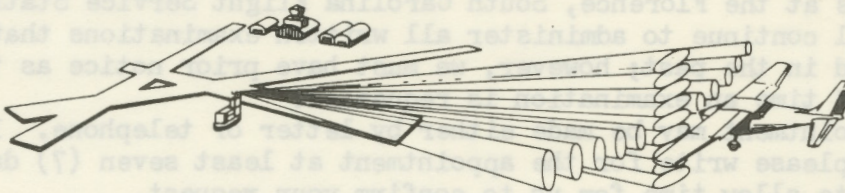
We welcome Mr. Jungemann to South Carolina and wish him success at Hilton Head.

AIRCRAFT OPERATING COSTS

The first government report on the cost of operating a general aviation aircraft is available in limited quantity from FAA. In general, the use of private aircraft for personal or business travel is more expensive than airline or automobile travel, but convenience and time-saving factors may compensate for extra cost. Lowest operating cost reported for a general aviation aircraft is 5.6¢ per mile for a single engine, four-place airplane used between 100 and 200 hours annually.

Department of Transportation  
 FEDERAL AVIATION ADMINISTRATION  
 IFR PILOT EXAM-O-GRAM\* NO. 27

**RADAR APPROACHES (ASR AND PAR)**



At a number of airports, facilities exist for the performance of Airport Surveillance Radar (ASR) and/or Precision Approach Radar (PAR) approaches. Responses to questions in Instrument Pilot Written Tests concerning these approaches, indicate misconceptions on the part of many applicants. A clarification of some of the points in this area will be attempted in the following questions and answers.

**WHAT PUBLICATIONS LIST AIRPORTS HAVING FACILITIES FOR ASR AND PAR APPROACHES?**

The most important source of information is the Airport/Facility Directory of the Airman's Information Manual (AIM). In the excerpt, notice that both ASR and PAR approaches are listed with their respective minimums. Notice the lower minimums for the precision approach. Airports having radar approach facilities available are also indicated in the Coast and Geodetic Survey Low Altitude Enroute Charts, Area Charts, and Instrument Approach Procedure Charts. On the pages titled, "FAA RADAR CEILING AND VISIBILITY MINIMUMS" in the first part of the Instrument Approach Chart Manual, ASR and PAR minimums are also listed.

Tower 118.5 122.7R  
 Radar Services: 124.6  
 ASR Rwy 2 Ceil 400 Vsbly 1 mi Min Alt 1605'  
 PAR Rwy 20 Ceil 200 Vsbly ½ mi Min Alt 1405'  
 (L) BVOR<sup>1</sup> 111.8/ALW on fld.  
 NDB M-SAB 356@/ALW 176° 3.2NM to fld.

**WHAT MINIMUM AIRBORNE RADIO EQUIPMENT IS REQUIRED FOR A RADAR APPROACH?**

Under normal conditions, the minimum is considered to be a functioning communications radio transmitter and receiver. However, since a radar approach is predicated entirely upon voice instructions from a ground radar controller, in an emergency, only an airborne receiver is required. Means of alerting civil and military radar facilities of an emergency are described in Part I of the Airman's Information Manual, i.e., triangular patterns and chaff procedures. Upon observation of one of these patterns by a radar facility, all possible assistance will be given. If appropriate, a radar approach may be given.

**HOW ARE ASR AND PAR APPROACHES SIMILAR?** In both types of approach procedures, all navigational guidance is provided by ATC use of ground radar. When conducting either type of procedure, the pilot must comply promptly with all control instructions issued. Headings, altitudes, and rates of turn must be accurately accomplished.

**WHAT IS AN ASR APPROACH?** An ASR approach is conducted only by surveillance radar. An approach may be made to an airport or a specific runway having an approved surveillance approach. Course guidance, and after passing the final approach fix, distance information are issued each mile from the runway/airport down to the last mile. If requested by the pilot, recommended altitudes may be issued each mile from the runway/airport down to the last mile, where the altitude is at or above the minimum descent altitude (MDA). The recommended altitudes on final decrease 300 feet each mile (approximate three degree descent slope). The pilot should adjust his rate of descent to achieve a rate consistent with recommended altitudes. If the MDA is reached before the missed approach point (MAP), the pilot should maintain this altitude to the MAP. The controller will advise the pilot when he reaches the MAP or one mile from the runway/airport whichever is greater, and if at this point the airport, runway or runway environment is not in sight, a missed approach should be commenced. If, on final, communication is lost for more than 30 seconds, the pilot should take over visually; if unable, he should execute the missed approach procedure.

**WHAT IS A PAR APPROACH?** A PAR serves the same purpose as an Instrument Landing System (ILS) except guidance information is presented to the pilot through aural rather than visual means. The precision approach starts when the aircraft is within range of the precision radar and contact has been established with the PAR controller. Normally, this occurs approximately eight miles from touchdown, a point to which the pilot is vectored by surveillance radar or is positioned by a non-radar instrument approach procedure. Prior to glide path interception, the final approach airspeed and configuration should be established. When the controller advises the aircraft is intercepting the glide path, power and attitude should be adjusted to maintain a pre-determined rate of descent and airspeed. The rate of descent will vary with aircraft approach speeds and airport glide path angles, but will be near 500 feet per minute.

Prior to intercepting the glide path, the pilot will be advised of communications failure/missed approach procedures and told not to acknowledge further transmissions. The controller will give elevation information as, "slightly/well above" or "slightly/well below glide path" and course information as, "slightly/well right" or "slightly/well left of course." Extreme accuracy in maintaining and correcting headings and rate of descent is essential. The controller will assume the last assigned heading is being maintained and will base further corrections on this assumption. Elevation and azimuth guidance is continued to the landing threshold of the runway, at which point the pilot will be instructed to take over visually. If the runway or runway environment is not in sight at the decision height (DH), a missed approach must be executed. If communication is lost for more than 5 seconds on final, the pilot should take over visually; if unable, he should execute the missed approach procedure.

**NOTE:** Facilities for PAR approaches have been discontinued at a number of civil airports. Those remaining can be determined by referring to AIM.

The first three references listed below may be obtained from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402; the fourth is available from the Department of Transportation, Distribution Unit, TAD-484.3, Washington, D.C. 20590.

1. Airman's Information Manual, Parts I and III
2. Instrument Flying Handbook, AC 61-27A
3. USAF Instrument Flying Manual, 51-37
4. Civil Use of U.S. Government Instrument Procedure Charts, AC 90-1A

### INSTRUCTOR REFRESHER COURSE

The AOPA Air Safety Foundation will co-sponsor the Flight Instructor Refresher Course at Columbia, South Carolina. The dates for the course are October 14 - 16, 1969, and the program will be conducted at the Richland Technical Education Center, 316 Belt Line Boulevard, Columbia, South Carolina, beginning at 8:00 A.M. October 14. The Course fee is \$25.

If you are a candidate for a rating or a renewal, or are interested in an excellent refresher course, you will find this presentation to be of real value. Your flight instructor certificate with ALL ratings will be revalidated at the discretion of the FAA upon completion of the course. Eligible graduates may earn the coveted FAA Gold Seal. A standardization ride will be required if your certificate has expired.

All necessary publications and materials will be furnished without additional charge.

There will be a total of 28 hours of classroom lectures, discussions and seminars.

Lodging will be arranged for out-of-town instructors at the Host of America Motel, 4502 Devine Street, Columbia, South Carolina.

For additional information write: James E. Stargel, Director, Special Courses Department, AOPA Air Safety Foundation, Washington, D.C. 20014, or John F. Barry, Assistant Director, South Carolina Aeronautics Commission, Drawer 5886, Columbia, South Carolina 29205.

### BREAKFAST CLUB NEWS

In spite of the bad weather over most of the state, 105 members were on hand for breakfast at Goat Island on Sunday, August 31. A good number came over from the weekend program which was held at Santee Airport.

The meeting for September 14 will be held at Greenville Downtown Airport at the Thermal Belt Aviation hangar. Members are also invited to attend the dedication of the new Pickens Airport on September 13.

On September 28, the Breakfast Club will meet at Rudy Branham's new airport in Darlington.

On October 12, J. C. Long has invited the group to attend a free breakfast at the Isle of Palms.

The annual election of officers will be held at Orangeburg on October 26.

### CARIBBEAN CHARTS

The Federal Aviation Administration has announced availability of new instrument flight rules (IFR) charts and flight information as a package covering the entire Caribbean area to facilitate operations for the increasing number of private and business flights into the area.

The new material is based on an earlier Department of Defense series, modified to meet the needs of civil users. It includes three sheets with five enroute charts and a selection of area charts, as well as a detailed information supplement which provides greatly expanded information on airports, radio navigation facilities, communications, special operations and emergency procedures in the Caribbean.

The new charts with the supplement are now available through the conventional Coast and Geodetic Survey sales system. Sale of the civil Miami-Nassau-Puerto Rico chart, which was previously available to users for flight in the Caribbean, has been discontinued.

Chart 1 covers from San Diego to Mexico City and is backed by Chart 2, from Mexico City to Panama. Chart 3 covers the segments of the United States and Mexico which border on the Gulf of Mexico and extends southward to the Yucatan Peninsula and Cuba. Chart 3 is backed by the following charts: Miami-Nassau, Puerto Rico, Mexico City, Guatemala City, and Panama area.

Chart 5 goes from the east coast of Florida as far south as Jamaica and Puerto Rico and contains a special Charleston-Bermuda-Puerto Rico inset. Chart 5 is backed by No. 6, which goes from Guantanamo to the northern tier of South America. The chart supplement covers the entire area south of the United States.

## OPERATIONS RESERVATION

"A Federal Aviation Administration regulation to 'ration' flights at five major airports in an attempt to reduce aircraft delays has actually resulted in more aircraft being delayed for longer periods." This was stated in mid-August by the Aircraft Owners and Pilots Association (AOPA) as that organization asked the FAA to withdraw the controversial rule.

During June, the first month of operation under the rationing rule, the three airports serving New York City handled 6,254 fewer flights than during June of last year, AOPA stated. Despite this reduced operation, AOPA declared that 768 more airline aircraft suffered delays this June than were delayed during the corresponding month last year when there was no rationing. The average delay per airliner at LaGuardia airport was 15 minutes longer this June than it was June, 1968, AOPA said.

AOPA President, J. B. Hartranft, Jr. said a letter has been sent to FAA Administrator John Shaffer urging "a full review which will lead to an immediate withdrawal of the regulation." Hartranft said his letter to the FAA Administrator pointed to other alternatives for making the most efficient use of the public airports.

"Climb and descent corridors should be established at major airports to keep aircraft of similar speed characteristics in the same environment and flow control procedures to monitor approaching aircraft are just two of the ways delays can be alleviated," Hartranft added. He said these and other suggestions were made to the FAA last summer when a combination of adverse weather, peak holiday travel and a decision by controllers to "follow the book" combined to create abnormal delays.

Hartranft further said that during June of this year there were 7,231 fewer general aviation flights at New York's three major airports than during June of last year. "The fact that there were still more delays and longer delays with this much general aviation activity removed documents that the general aviation airplane has little to do with delays and congestion at major airports," he added. "Yet, it is general aviation which is taking the major blows from this unnecessary restriction."

"We hope the FAA will take a constructive look at their own figures and 'terminate this experiment in regression'," Hartranft said.

## FLORENCE AIRPORT

Runway 11-29 at Florence is closed. A new runway 6-24 is under construction. It will be 6500 feet in length.

SOUTH CAROLINA AERONAUTICS COMMISSION

DRAWER 5886

COLUMBIA, SOUTH CAROLINA 29205

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HALL AVIATION



HAROLD HALL

Hall Aviation at Columbia Metropolitan Airport opened for business officially on September 2. Harold Hall is President and Charlton Hall, Jr. is Vice President-Secretary-Treasurer of the company.

Hall Aviation will be dealer for a full line of Cessna Aircraft, will also provide major and minor aircraft and engine maintenance, and avionics maintenance. 80 and 100 octane fuel and also jet fuel are available at Hall as well as individual hangar storage.

Open house is planned for early October.