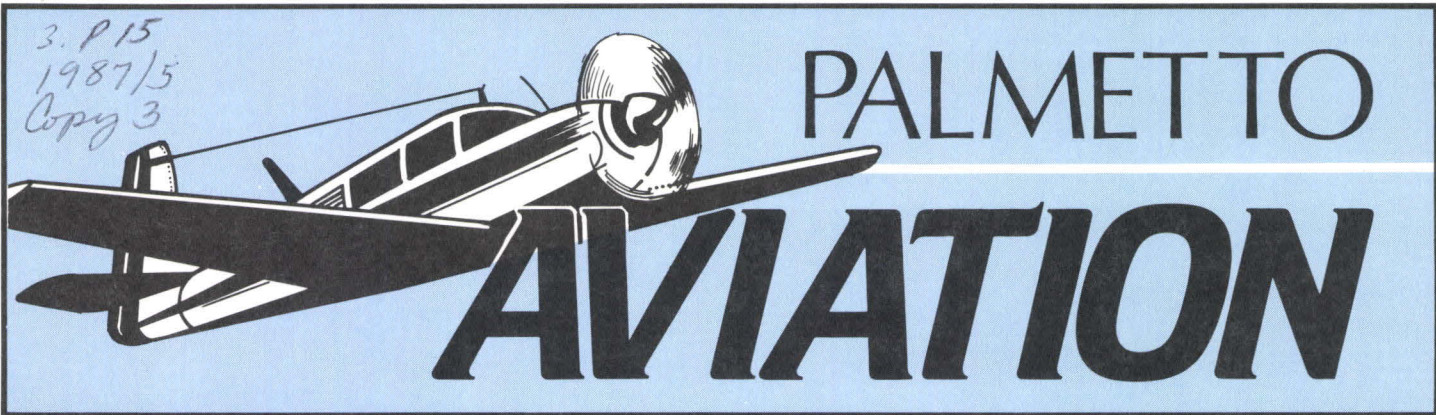


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STATE DOCUMENTS

★ ATTENTION ★

★ ATTENTION ★

★ ALL AIRPORT SPONSORS ★

# CAPITAL IMPROVEMENT BOND FUNDS

Hey, airport sponsors. Is your airport in need of capital improvements? Do you already have improvements in mind or being planned? If so then you need to be aware of the Aeronautics Commission's policy concerning Capital Improvement Bond Funds.

The Commission awards grants for eligible airport improvement projects from Capital Improvement Bond funds. These funds are available on several levels.

In order to determine the level of funding needed and to submit the proper, required documentation, the Aeronautics Commission has prepared two separate

document packages. These have already been sent to each publicly owned airport sponsor.

The first package includes information concerning the state Budget and Control Board's Annual Permanent Improvement Program (APIP) for 1987-88.

The second package included information and the necessary forms for documenting the Overall Permanent Improvement Program (OPIP). OPIP encompasses an overall five-year planning period.

These packages MUST be completed and returned to the Commission in order

to be included in any request for bond authorization.

Each airport sponsor should have received these two packages. If for some reason you did not receive yours, they can be obtained through the Commission by writing to Wayne Corley, P.O. Drawer 1987, Columbia, SC 29202, or by phone at (803) 734-1720 or 1-800-922-0574.

If you have any questions, Mr. Corley is available Monday through Friday during business hours.

Remember, these forms MUST be completed before any request for bond authorization can be considered.



**PALMETTO AVIATION** is an official publication of the South Carolina Aeronautics Commission. It is designed to inform members of the aviation community, and others interested in aviation, of local developments in aviation and aviation facilities and to keep readers abreast of national and international trends in aviation.

The Aeronautics Commission is a state agency created in 1935 by the S.C. General Assembly to foster and promote air commerce within the state.

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## Where Have All the Children Gone?

**BY Chuck Larsen**

They have gone the way of the ramshackle hangars, 40 horse Cubs, tattered windsocks and hand operated gas pumps. Gone with bewhiskered flight instructors who were also the mechanic, bookkeeper and janitor for flight schools that operated out of tiny line shacks at the edges of mown grass strips. Gone are the days when sweeping a hangar or carefully washing a plane could be traded for a few precious moments in the air.

In the name of safety, security and efficiency these opportunities to learn the skills and lore of aviation are denied most of today's young people. Glass and concrete towers, tall fences and security gates...airports with "No Trespassing" signs and locked doors keep out those who would be the airport kids of today and the aviators of tomorrow. How sad.

*Reprinted in part from EAA Project School Flight News*

## Is Being Accident Prone Realistic?

How often have you heard the cause of an accident attributed to accident proneness on the part of the individual involved? Accident proneness is a convenient label, but it's not a cause. The term accident proneness is a misnomer, a myth. By calling someone accident prone, you are stating that he was born to have accidents, that his hereditary nature makes him a klutz, and that there is nothing that can be done to stop him from having an accident.

This is just plain balderdash. Geneticists haven't discovered any accident proneness genes, and research studies have shown that we can't even predict a person's likelihood of having an accident from his past accident history. But accidents can be prevented, as will be pointed out.

If accident proneness is a myth, why do some people appear to have more

than their share of accidents? To answer this question, let us first examine the reasons why a single accident occurs.

In almost every accident, the accident investigator is faced with a myriad of contributory variables. Very rarely is there a single cut-and-dry cause factor. There are almost always numerous contributory variables, such as poor man-machine interface, supervisory error, limited experience, failure to use accepted procedures, task over-saturation, overconfidence, etc. Sometimes these variables are transitory and stress related. For example, the accident victim may have been suffering from some temporary physiological variable such as fatigue, anoxia, hypoglycemia, or a temporary psychological variable such as boredom, anxiety, frustration, or depression. *Lt. Col. Gordon Rossback, Wing Safety Officer, CAP.*

# C.A.P. NEWS



**Breakfast Club**



## Air Force Association Presents Awards

The Swamp Fox Chapter of the Air Force Association, Shaw AFB, recently presented its annual awards to their area CAP and Junior ROTC cadets.

Receiving Outstanding Cadet plaques for the CAP were: from the Sumter Composite Squadron, Cadet Percy Van Ryn and Captain Robert McKay, Squadron Commander; from the Florence Composite Squadron, Cadet James Todd and Major Cordy Williamson, Squadron Commander.

Junior ROTC cadets honored were Edward Irick, Orangeburg-Wilkenson High School; Keith Haseldon, West Florence High School, Darryl Good, Northwestern High School; Hugh Sproles, Rock Hill High School; Chris Cummings, Sumter High School and James Wallace, Wilson High School.

## Speak-Off Winners to Attend Middle East Regionals

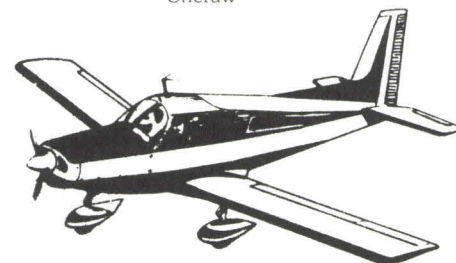
The CAP held its annual Cadet Speakoff last month with winners declared on three levels; Advanced, Impromptu and Beginner.

The speech winners were: Advanced Anne Ruggiero, Coastal Charleston Composite Squadron; Impromptu - Kenneth Allen, Coastal Charleston Composite Squadron; and Beginner - Mary Gallagher, Berkeley Composite Squadron.

The winners were to compete at the Middle East Region Speakoff in Charlotte, NC while we were going to press.

Kim Bigger, Columbia Composite Squadron has been named an alternate to the competition.

- May 17** Laurens County (Laurens County Jubilee)
- May 31** Walterboro Municipal Walterboro
- June 14** Bryant Field Rock Hill
- 28** Columbia Owens Downtown Columbia
- July 12** Greenwood County Airport Greenwood
- 26** Open
- August 9** Newberry Municipal Airport Newberry
- 23** Cheraw Municipal Airport Cheraw



# PRIVATE PILOTS YOU CAN MAKE A DIFFERENCE

A difference in someone's life? That is what AirLifeLine is all about.

We are a non-profit charitable organization of private pilots nationwide who donate their time, skills, fuel and aircraft to fly medical missions. AirLifeLine pilots have flown over 750 missions since we began in late 1979, logging over 600,000 air miles in service to humanity. Our missions include the time-critical transport of medical cargo such as whole blood, blood platelets, heart pacemakers, eye corneas, human organs for transplantation, and mother's milk - the only source of nutrition that some children's digestive systems can tolerate.

In addition to the cargo missions, the vast majority of AirLifeLine flights involve medical travel for ambulatory patients (no

stretcher cases) needing treatment or diagnosis at a hospital distant from home. These patients, both adults and children, are able to walk and must have their stable physical condition verified, in writing, by their doctor. The normal one-way distance for a mission is 500 miles or less. All AirLifeLine missions are referred by or screened through a medical agency.

All expenses incurred for flying medical missions are used as itemized charitable tax deductions by our pilots. Each year, missions are verified by our national office and the pilots determine their individual flying costs.

There is a CRITICAL need for private pilots nation wide. The national office is receiving frequent calls from medical

agencies, on behalf of local families who have been devastated by a serious illness or injury. Won't you please utilize your skills and love of flying to make a positive difference in someone's life.

If you own or have access to an aircraft, have flown a minimum of 200 hours and would like to help, please call or write the National AirLifeLine Office for a pilot information packet at 1011 St. Andrews Drive, Suite 1, El Dorado Hills, California 95630, (916) 933-3060. The benefits general aviation pilots give to mankind, through AirLifeLine, are impressive. In 1986, 346 missions were flown logging 252,000 miles in humanitarian service. Contact AirLifeLine and become a part of our team.

# ARSA AR

## Airport Radar Service

### Columbia Metro And Gree

In August, 1982, Task Group 1-2.2 of the National Airspace Review (NAR) was charged with making specific recommendations concerning the Terminal Radar Service Area (TRSA) program. The group recommended discontinuing TRSAs and the implementation of a new program initially called Model "B" Airspace.

The FAA confirmed the concept and designated the term "Airport Radar Service Area" (ARSA) to describe the new airspace. The FAA established two ARSAs at Austin, Texas and Columbus, Ohio as experiments. The data collected during these tests confirmed the concept of ARSAs as replacements for TRSAs.

On March 10, 1987, the final rule designating the Columbia and Greer ARSAs was issued. They both became effective on April 9, 1987.

### General ARSA Rules

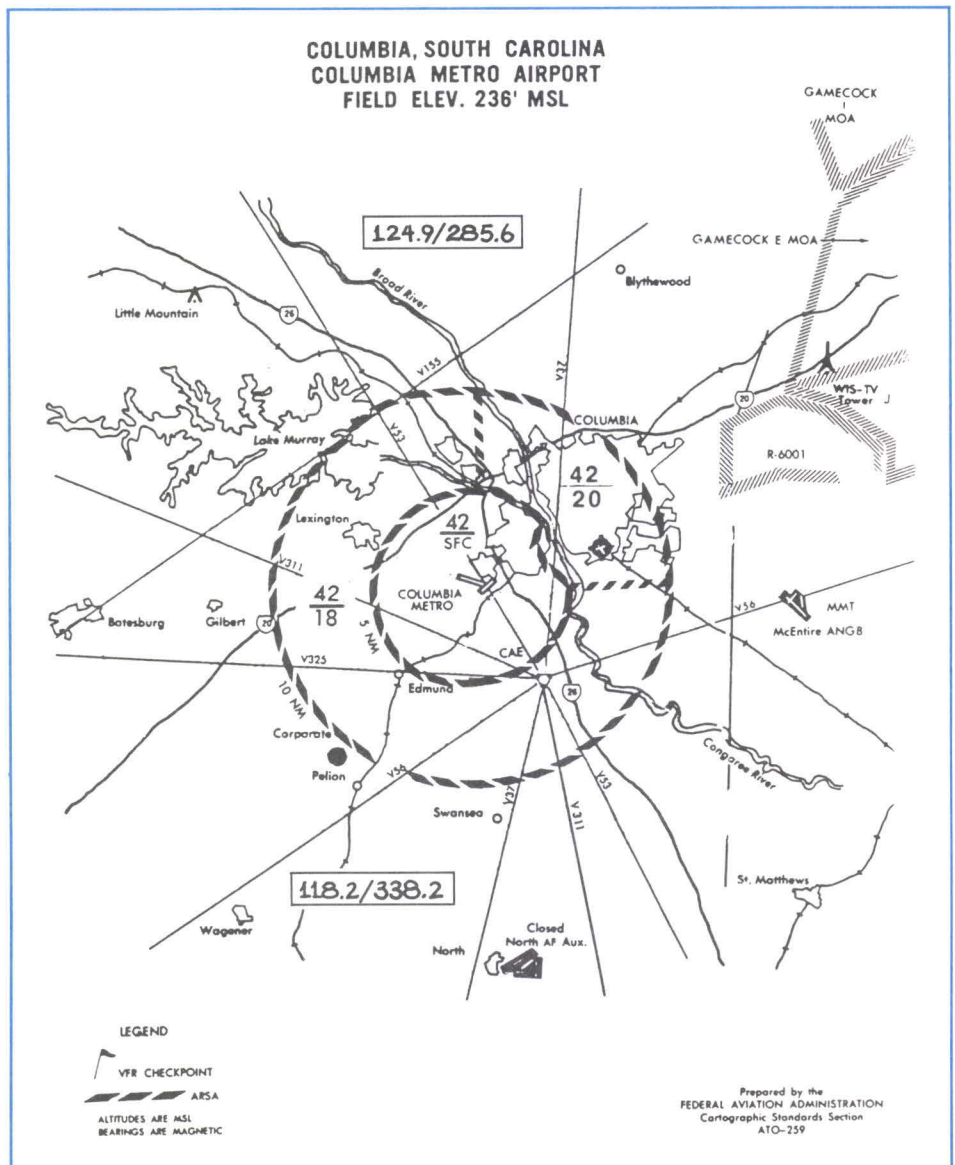
Unless otherwise authorized or required by ATC, the following provisions apply to aircraft operating within an ARSA:

1. Aircraft approaching that would penetrate the ARSA must establish two-way radio communications with ATC prior to entering the ARSA and maintain that communication while operating within the ARSA.
2. Aircraft departing the primary airport within the ARSA must establish two-way communications with ATC prior to departure and maintain that communication while operating within the ARSA. Aircraft departing a satellite airport within the ARSA must contact ATC as soon as practicable after takeoff.
3. Except in an emergency, all operations must be in compliance with ATC clearance and instructions.

4. All arrivals and departures within the ARSA must be in compliance with FAA arrival and departure traffic patterns.
5. Ultralight vehicles and parachute operations may not be conducted within the ARSA except under the terms of an ATC authorization.
6. NOTAMS pertaining to flight within the ARSA must be reviewed as part of preflight action required by FAR 91.5.

### Columbia ARSA

That airspace extending upward from the surface to and including 4,200 feet MSL within a 5-mile radius of the Columbia Metropolitan Airport excluding that airspace within a 2-mile radius of the Columbia Owens Downtown Airport and that airspace extending upward from 2,000 feet MSL to 4,200 feet MSL within



# SA ARSA

## Areas Take Effect At Greenville-Spartanburg Airports

a 10-mile radius of the Columbia Metropolitan Airport from the 004° bearing from the airport clockwise to the 094° bearing from the airport, and that airspace extending upward from 1,800 feet MSL to 4,200 feet MSL within a 10-mile radius of the airport from the 094° bearing from the airport clockwise to the 004° bearing from the airport.

**Communications Procedures:** Arrivals/overflights south of the runway 11/29 ILS localizer at Columbia Metropolitan Airport contact Columbia Approach control on 118.2/338.2 and north of the runway 11/29 ILS localizer contact Columbia Approach Control on 124.9/285.6.

The **Columbia Outer Area** consists of a 20 NM radius within the confines of the Columbia Approach Control airspace. The area extends outward from the Columbia airport and extends from the lower limits of radar/radio coverage up to and including 10,000 feet MSL, excluding the ARSA.

### Greer ARSA

The ARSA airspace consists of two circles, both centered on the Greenville-Spartanburg Airport. The inner circle has a radius of 5 NM. The outer circle has a radius of 10 NM. The airspace of the inner circle extends from the surface of the Greenville-Spartanburg Airport up to 5000 feet MSL (4000 AGL). The airspace area between 5 NM and 10 NM is from the 021° bearing from the Greenville-Spartanburg Airport from 2200 feet MSL to 5000 feet MSL. From the 220° bearing from the Greenville-Spartanburg Airport clockwise to the 021° bearing from the Greenville-Spartanburg Airport the ARSA altitudes are from 3100 feet MSL to 5000 feet MSL.

The **Greer Outer Area** consists of the 20 NM radius of the Greenville-Spartanburg Airport, excluding the ARSA airspace mentioned above and beyond a straight line beginning at 19

nautical miles on the 303° bearing from the Greenville-Spartanburg Airport clockwise to 11 nautical miles on the 356° bearing from the Greenville-Spartanburg Airport straight line to 20 NM on the 017° bearing from the Greenville-Spartanburg Airport. This airspace is delegated to Asheville Approach Control. The altitudes in the outer area extend from the lower limits of radio/radar coverage up to 10,000 feet MSL.

### ARSA SERVICES

#### WITHIN THE ARSA:

1. Sequencing of all arriving aircraft.
2. Standard IFR separation between IFR aircraft.
3. Between IFR and VFR aircraft - traffic advisories and conflict resolution so that targets do not touch: or 500 feet vertical separation.
4. Between VFR aircraft - safety advisories/traffic advisories.

#### WITHIN THE OUTER AREA:

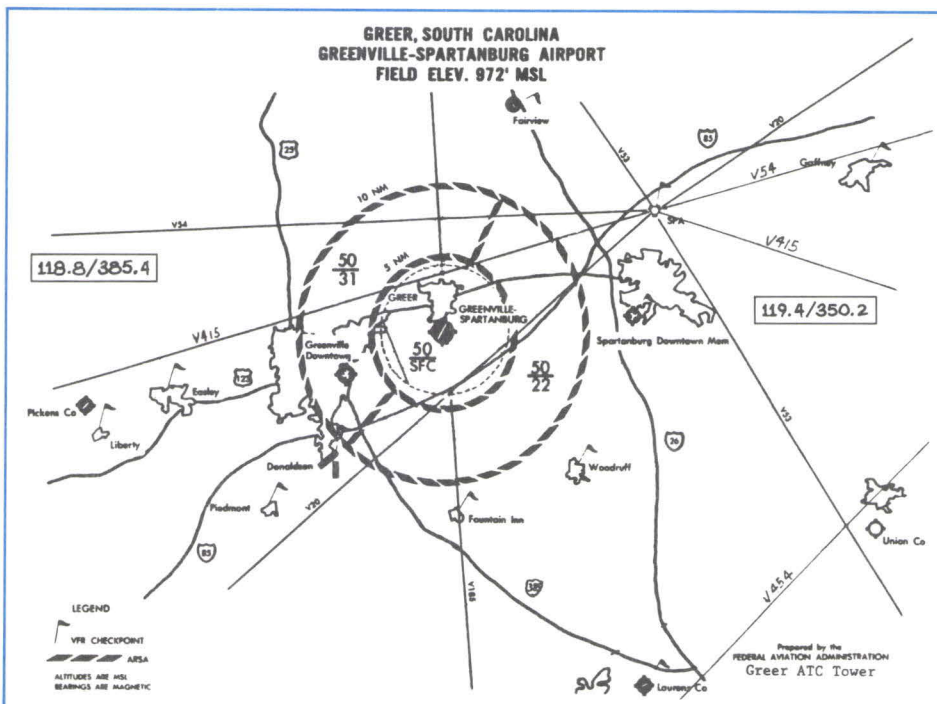
1. The same services are provided for aircraft operating within the outer area when two-way communication and radar contact is established. While pilot participation in the outer area is strongly encouraged, it is not a VFR requirement.

Within the ARSA and the specified outer area, traffic advisories will be provided as a primary duty; not as an additional service.

2. No separation between VFR and IFR helicopters required.
3. Hot air balloons should be treated as aircraft: however, balloons are not required to be separated from IFR aircraft.

#### BEYOND THE OUTER AREA:

1. Standard IFR separation
2. Basic Radar Service
3. Safety Advisory, as appropriate



## Points to Consider When Using Auto Gas in Aircraft

The FAA does not regulate the distribution systems for either aviation gasoline or automotive gasoline. The FAA does not regulate the specifications for either fuel. It does, however, approve the use of fuel to a given specification in an aircraft engine.

The distribution, control, and quality of these fuels are maintained and self-policed by industry. Traditionally, industry has claimed to maintain strict control over the distribution for aviation gasoline and has established checks at specific points in the system to ensure product quality. This type of control is not applied to all automotive gasoline.

When automotive gasoline was approved for use in specific aircraft piston engines, the FAA stipulated only the use of certain gasolines that meet American Society for Testing Materials (ASTM) specification No. D-439. Note: not all automotive gasolines being marketed meet that specification. Also, there are composition differences between aviation and automotive gasolines which should be recognized when using automotive gasolines in those aircraft engines and aircraft for which STC's have been obtained.

Some problems encountered with the use of automobile gasoline in aircraft are:

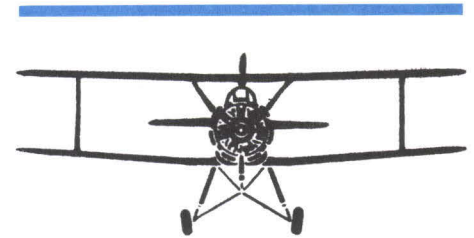
- Insuring fuel cleanliness of automotive gasoline can be a greater problem than that encountered in obtaining aviation fuel.
- Long-term storage of automotive gasoline fuel in aircraft fuel tanks can conform undesirable gum deposits that could result in engine malfunctions.
- Carburetor icing will occur in less time and at higher ambient temperatures with automotive gasoline than with aviation gasoline. Pilots using automotive gasoline should be familiar with the induction system icing prevention procedures.
- After any prolonged period of heat-soak; etc., aircraft sitting in sun or hot day ground idling, it is recommended that the availability of full power be established before commencing a takeoff.
- FAA approvals for use of automotive gasoline have not included gasoline which is blended with alcohol. Gasohol, even if it meets ASTM D-439, is not considered automotive gasoline for purposes of FAA approvals.

*(Excerpt from the Idaho Aviation Newsletter)*

## Piper Forbids Auto Gas

Piper Aircraft Corp. has issued a Service Bulletin prohibiting the use of auto gas in all models of piston-powered Piper aircraft.

In a bulletin to owners dated Jan. 14, the manufacturer said that the use of automotive type gasoline is believed to be a contributing factor in "numerous accident investigation reports." It stated that since Piper has found no method of defining the formulation and physical properties (such as vapor pressure) of automotive fuel in general, and since there is evidence that motor fuel will attack certain fiberglass materials used in fuel tanks with resultant contamination and blockage of the fuel system, Piper does not approve any fuels other than aviation grade gasoline.



The first woman to fly in an airplane was Madame Therese Peltier on July 8, 1908.

## COURTESY=SAFETY

Safety is an important product of courtesy in the uncontrolled airport traffic pattern. At present, FAR Part 91 requires nothing more from pilots at uncontrolled airports than to make all turns to the left, when approaching to land, unless light signals or visual markings indicate to the contrary. This, then, places a great deal of responsibility on the pilot, to see, be seen, and avoid colliding with others operating in the vicinity of the airport.

We should all know, the procedures for operations around uncontrolled airports and those who are a little "fuzzy" on the subject may well spend a few minutes with the Airman's Information Manual or FAA Advisory Circular 90-66 dated 2-27-75. If the system is to work we must be in compliance with these recommendations, and also, have a genuine regard for the well being of others in the area.

Incredibly, many pilots seemingly ap-

proach uncontrolled airports so intent on landing as to disregard the possibility of the presence of others, thereby compromising safety. (It has been my observation, that it is the courteous, thoughtful pilot who saves the day by relinquishing his right-of-way and uses CTAF to warn others in the vicinity). This is the good pilot and real hero, who makes it work, not the "hot shot" who shoots them all straight in. Which one are you?

## Myrtle Beach AFB Announces Open House and Airshow

Performances by the U.S. Army and Air Force precision teams will highlight events at Myrtle Beach AFB's annual open house and airshow scheduled for June 3.

The Air Force's elite aerial demonstration team, the Thunderbirds, will be making their third consecutive appearance and the Army precision parachute team, the Golden Knights, will be performing their second show at the base since 1984.

"The purpose of the airshow is to provide the public with an orientation of the mission of the Air Force, Tactical Air Command and the 354th Tactical Fighter Wing. It also helps foster community relations," explained Captain Jim Poindexter, base open house project officer.

Although the Thunderbirds and Golden Knights will be the main attractions, they are by no means the only reasons to attend this year's edition of "Sun Fun and Aerospace Days," according to Captain Poindexter. Perfor-

mances by the base's search and rescue helicopter detachment, F-15 Eagle and A-10 Thunderbolt II will also be featured at the event that is held in conjunction with the Myrtle Beach Sun Fun Festival.

Additionally, dozens of aircraft will be on static display. Although the list of specific aircraft has not been finalized, aircraft have been requested from Tactical Air Command, Strategic Air Command, Military Airlift Command, as well as Canadian Forces, to give visitors a look at the latest in military aviation.

"Reserve Generation," a component of the U.S. Air Force Reserve Band, will be performing. A military working exhibition and security police firepower demonstration will round out the day's activities.

There is no charge for the event. Gates are scheduled to open at 9 a.m. Come early, last year's event drew nearly 90,000 people to the base.

## Palmetto Sport Aviation Association Members Win Trophy In Florida

Walter Carson and his father Ray recently returned from Lakeland Florida's "Sun 'N Fun" fly-in with one of the major awards.

The Carson's garnered the Grand Champion Antique Award for their 1941 Porterfield Collegiate which they flew down from Owens field in Columbia.

The Spirit of "Sun 'N Fun" trophy went to Florence EAA chapter member Thomas Hatchell and his replica of a WWII Corsair following some rather fancy flying after experiencing a gear malfunction.

It seems Tom's gear failed to extend at the end of the warbirds flybys. Tom kept his cool and control of the aircraft while removing the floorboards which enabled him to kick the gear into the down and locked position.

A very well deserved congratulations is due both the Carsons and Tom Hatchell. Well done!

## SCAAA Buys Calibration Equipment

With an eye on future recertification requirements that will evolve after the FIFRA has been rewritten, the SCAAA has joined with the NCAAA and jointly purchased the Swath Calibration equipment that was previously owned by the NAAA.

This equipment will be maintained and operated by Clemson University and will allow us to have smaller and more numerous calibration fly-ins, thus giving us greater flexibility in complying with recertification requirements.

The SCAAA's share of this endeavor was \$2,500. Donations are being accepted to help pay for this equipment. Clemson has provided some funds and several members have already given \$700 each. Any operator who contributes \$100 will receive credit for aircraft calibration charges which are estimated at this point to be \$25 per aircraft, per calibration.

The 1987-88 SCAAA Directory is nearing completion. If you have not paid your dues for this year, get them in to Jack Barry so you will be listed in the new directory.

## Aviation Calendar

*The following are aviation events occurring in or near South Carolina.*

**May 8-10:** Palmetto Balloon Classic, Camden Airport. Lots of lighter-than-air fun, come join us.

**May 15-17:** May-Fly 87, Florence City-County Airport. Aerial demonstrations, exhibits and static displays. Airshows on 16th and 17th, plus camping, transportation and more. For information call (803) 669-5001.

**May 15-17:** Open House/Airshow,

Dobbins AFB, Atlanta, GA. Features the Thunderbirds on the 16th and the Golden Knights.

**May 21:** Wateville VIP Reception and Airshow, Fayetteville, NC. Features the Golden Knights.

**June 3:** Myrtle Beach AFB Open House and Airshow. Features the Thunderbirds and the Golden Knights.

**June 6-7:** Cherry Point MCAS Open House and Airshow, Havelock, NC. Features military aircraft and the Golden Knights.

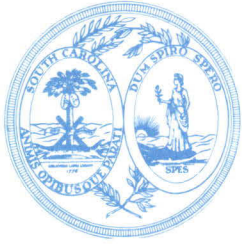
## Natural Fabrics Safer

Dressing for safety in the cockpit means wearing garments made primarily of natural fibers, according to recent research on the flammability of clothing.

Wool and cotton materials were found to self-extinguish more readily than synthetics. Also, they are less likely to flare up or transmit heat rapidly, or to shrink or melt onto the skin. Synthetics or

plastics worn next to the body increase the chances of severe fire damage considerably.

Another factor women should be aware of is that slacks provide better fire protection than dresses, as a skirt will allow the flames to tunnel up inside causing severe burns.



**SOUTH CAROLINA  
AERONAUTICS COMMISSION**  
P.O. Drawer 1987  
Columbia, South Carolina 29202

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## This Month...

### Inside Palmetto Aviation

- Columbia and Greer ARSAs Go Into Effect
  - Private Pilots Make a Difference
  - Capitol Improvement Bond Funds
  - Auto Gas Users Be Careful
  - Trophys Won In Florida
- ... AND MUCH MORE!

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## “Lights On” For Safety Program Renewed by FAA

“Operation Lights On” is a program designed to reduce the possibility of mid-air collisions, bird strikes, and accidents/incidents resulting from runway transgressions.

Tests have shown that the display of aircraft lights, day or night, enhance the “see and avoid” concept. “Operation Lights On” is a program which has been in existence for some time; renewed emphasis is being placed on this program.

Participation in “Operation Lights On” is purely voluntary; however, all pilots are encouraged to turn “on” their anti-collision lights anytime the aircraft engine(s) are running *and* turn on their landing lights when:

- Taxiing onto an active runway, day or night.
- Operating within 10 miles of any airport, day or night.
- Operating in conditions of reduced visibility: i.e., haze, dusk, etc.
- Operating where flocks of birds may be expected: i.e., coastal areas, near lakes, swamps, refuse dumps or bird sanctuaries.
- Operating under Special VFR conditions.

A few words of caution should be

observed in relation to this program:

- Do not become complacent about keeping a sharp lookout for other aircraft. Not all aircraft are equipped with lights and some pilots may not turn their lights on. Double-check for other aircraft/vehicles even after a clearance has been received.
- Consult the aircraft manufacturer’s instructions regarding the operating limitations for landing lights and electrical system loads.
- Do not forget to turn the lights off before leaving your aircraft.

**This publication is printed and distributed by the South Carolina Aeronautics Commission in the interest of aviation safety and to foster growth of responsible aviation in the state. The viewpoints expressed in articles credited to specific sources are presented as the viewpoints of those writers and do not necessarily reflect the opinion of the South Carolina Aeronautics Commission.**