

C-736A
S. P51

V46/3
Copy 3



PALMETTO

AVIATION

Volume 46, Number 3

Published by the S.C. Department of Commerce/Division of Aeronautics

July/August 1994

Federal Airport Improvement Grants Approved for Six S.C. Facilities

Airports from across the state have been approved more than \$5 million for federal airport improvement grants.

Earlier this month, Sen. Fritz Hollings' office announced that airports in Conway, Spartanburg, Greenville, Orangeburg, Florence and Hilton Head were slated for federal airport improvement funding from the FAA.

The grants approved included:

Greenville-Spartanburg Airport – \$3.9 million from the FAA and a \$430,000 state matching grant for a runway expansion project extending the 7,600-foot runway to 9,000 feet, and adding a parallel taxiway and a

new cargo pad for BMW's 747s

Conway-Horry County Airport – \$476,352 for building an apron around the runway and improving an airport access road

Spartanburg Downtown Airport – \$357,205 for runway safety improvements, extend the runway safety area, which will be the first phase of the airport extension

Donaldson Center – \$337,500 for rehabilitation of airport taxiways

Orangeburg Municipal Airport – \$107,879 to remove obstructions

Florence Regional Airport – \$251,737 to upgrade the terminal building and build an access road

Hilton Head Airport – \$307,384 to renovate the terminal building, build a taxiway, an apron and construct an access road.

"These grants are important because they allow the airports to become safer and become more up-to-date," said Hollings, who chairs the Senate committee that oversees funding for the Federal Aviation Administration.

In addition to the airport improvement projects, the amount approved for Hilton Head Island includes funds to purchase land for future development of the airport. "Because the Hilton Head Island area is dependent on tourism and travel, it's important for the airport to be as up-to-date as possible," Hollings said of the announcement.

Last year, Hollings pushed through a \$633,193 grant for airport improvements. The grants are part of the Airport Improvement Program that identifies "projects that are necessary for the continued improvement of the nation's airport system," Hollings said.

With this issue, Palmetto Aviation, the newsletter for South Carolina Aeronautics, begins a new look and fresh graphics which will make aviation easier to follow.

But we won't change too much. We'll still be covering aviation events and happenings that are important to you.

Watch out: Windshear may be fatal

Thunderstorms are a constant trouble spot for pilots no matter if they fly for commercial operations or to an occasional breakfast club meeting, and associated with thunderstorms is windshear.

According to newspaper reports, windshear is said to be a contributing factor in the recent air tragedy of

USAir Flight 1016, which took the lives of 37 passengers.

"Pilots, all pilots, need to be more aware of windshear and how it affects them," said Dick Hitt, FAA accident prevention program manager for the Flight Standards District Office.

See Windshear, page 6



Palmetto Aviation is an official publication of the South Carolina Department of Commerce, Division of Aeronautics. It is designed to inform members of the aviation community, and others interested in aviation, of developments in aviation and aviation facilities, and to keep readers abreast of state, national, and international trends in aviation. The Division of Aeronautics is a state agency created in 1935 by the South Carolina General Assembly to foster and promote air commerce in the state.

Carroll A. Campbell, Jr.
Governor

Department of Commerce:

John A. Warren
Secretary of Commerce

Victor M. Robertson Jr.
Interim Executive Director

Division of Aeronautics:

Joseph J. Saleeby
Director

William A. Walls
Director of Airports

Walter I. Johnson
Director of Aviation

Helen F. Munnerlyn
Editor

From the Director's Desk: Carolina Aviation Fest to Celebrate in the Skies

One of the real joys of my job is the ability to travel to air shows like Oshkosh and Lakeland. It is a big thrill for me to see all the historic and innovative aircraft on display, as well as see the best precision military air shows in the world.

I have often thought, "Why doesn't South Carolina have something like Oshkosh and Lakeland?" Soon they will.

The first Carolina Aviation Festival is coming to the state Oct. 6 - 9 at the Myrtle Beach Jetport. It will be the first time South Carolina has planned an air event of this magnitude that will have local, regional and, as it grows, national impact.

The Carolina Aviation Festival is a fall tourist attraction that will extend the traditional summer season, Ron Miller coordinator of the Aviation Festival said. Aviators from the Carolinas, Georgia, Florida and throughout the country are involved in exhibiting their aircraft for static displays and air shows. Historical aviation exhibits depicting aviation personnel and various aviation components are also on the agenda.

The cornerstone of all aviation events, a fly-in, will kickoff the festival Oct. 6. Lots of other events such

as air races by small, highly maneuverable aircraft, skywriting, formation aerobatics and model aircraft flying are also part of the festival.

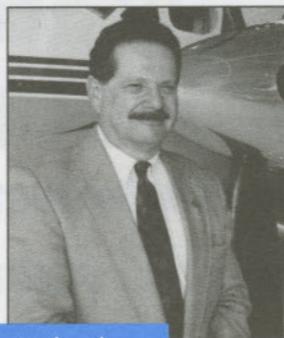
But the Carolina Aviation Festival isn't all fun and games. Seminars hosted by the FAA, S.C. Aeronautics and other aviation associations will demonstrate the most

up-to-date flying techniques, while aviation exhibitors will show state-of-the-art technology to aviation enthusiasts.

Just like Lakeland and Oshkosh, the aircraft will be judged according to classic, home-built, antique and restored military aircraft categories.

Proceeds will go to local civic organizations that help with the operation of the event and to a financial foundation for the Myrtle Beach Air and Space Education Museum.

So, come celebrate at the Carolina Aviation Festival and enjoy our great Carolina skies!



Saleeby

Joseph J. Saleeby



South Carolina Division of Aeronautics Offices are at Columbia Metropolitan Airport. Mailing Address: P.O. Drawer 280068, Columbia, SC 29228-0068. Phone (803) 822-5400 or 1-800-922-0574.

Aircraft Accidents Should Be Reported to S.C. Aeronautics

If you have an aircraft accident in South Carolina, you are now advised to report it to the Division of Aeronautics Airport Development Office at 1-800-922-0547 as soon as possible.

In addition to S.C. Aeronautics, you are still required to follow all guidelines and regulations imposed

by the FAA.

When you have an accident, be sure to send a copy of the accident report to the S.C. Department of Commerce, Division of Aeronautics, at P.O. Box 280068, Columbia, SC 29228. For more information, contact Bill Walls, Airport Development at S.C. Aeronautics.

SC Aviators Form Mentoring Group

Making aviation better for us all is the purpose of a newly formed group of aviators in South Carolina. An organization of safety conscious and dedicated pilots have formed an alliance that will be able to support or assist the FAA accident prevention program.

The Aviation Education Research Organization, AERO for short, is an independent company with no connections or ties to the federal government. As a tax-exempt organization AERO has the ability to accept donations of time, services, materials, or money for education aviators. The main thrust of AERO is to increase the

safety level of aviation in the state through the private sector.

AERO will provide ownership of donated safety materials that will be loaned, on a case-by-case basis, to persons it believes can affect aviation safety. AERO believes that by bringing high quality speakers from out of the area, or by purchasing new technology equipment, or by providing other support, that it might help a pilot, or even save a life.

For more information about AERO, and how you can become involved, contact Fred Gertz at (803) 252-1524.

Charleston's Passenger Traffic Up

Passenger traffic has soared at Charleston International Airport for the second consecutive month, said David G. Jennings, chairman of the Charleston Aviation Authority.

A record number of 88,454 passengers arrived at Charleston International in April while a record number of 89,923 boarded flights for the same period.

AVIATION CALENDAR

August 21

Breakfast Club
Pickens County Airport
Liberty, SC

September 4

Breakfast Club
Newberry County
Airport

September 11

Breakfast Club
Hilton Head Island

September 18

Breakfast Club
Green Sea Airport
Near Loris

September 30-October 2

EAA Chapter 3
Antique Fly-In
Camden

October 2

Breakfast Club
Camden

October 30

Breakfast Club
Orangeburg Municipal

November 13

Breakfast Club
Walterboro Municipal

November 13-16

SC Aviation Conference
Radisson Resort
Myrtle Beach

Carolina Aviation Fest Planned for Myrtle Beach

A new and exciting air extravaganza, Carolina Aviation Festival, is being planned Oct. 6 - 9 in Myrtle Beach.

The air festival will consist of a major aircraft fly-in (500 - 1,000 aircraft) with aviation events designed to attract aviators from South Carolina, North Carolina, Georgia and Florida.

On Oct. 6, a general aviation fly-in will begin the four-day event with a host of air races, aerobatic displays, air shows, skywriting and night pyrotechnics by professional performers.

In addition to the air shows, educational seminars sponsored by aviation companies, the FAA, Division of Aeronautics and other veteran military and civilian pilots will be on tap. Many of the aviation displays will stress other aspects of aviation such as aviation history, personnel of aviation and the various components to emphasize the Carolinas as "the birthplace of aviation."

Fire Academy To Get \$1.1 Million

The South Carolina Fire Academy in Columbia has been awarded \$1.1 million to complete a regional aircraft rescue and firefighting training facility, U.S. Sen. Fritz Hollings announced recently.

The Fire Academy will be the first in the state to offer firefighters and rescue personnel much-needed training in aircraft emergency techniques incorporating hot drills.

"By the time the fire academy is finished, South Carolina will be on the cutting edge of finding new ways to save lives, fight fires and deal with hazardous materials and situations," Hollings said. His committee oversees the FAA, the U.S. Fire Administra-

A highlight of the show will be a display of about 40 Warbirds from the southeast. Classic, home-built, antique and restored military aircraft will be flown in from North and South Carolina.

The Carolina Aviation Fest also will be host to many reunions and aviation groups, such as The S.C. Breakfast Club, Grumman Yankee Aircraft Association and various other aviation organizations.

This air festival is patterned after the event in Oshkosh, Wisconsin, which draws an annual one-week attendance of more than 600,000 people and the event in Lakeland, Florida, which draws more than 400,000 people. In 1994, Lakeland estimated more than 700,000 people came through the gates in their six day event.

For more information about Carolina Aviation Festival, call (803) 626-3547.

tion and the National Fire Academy. Funding for the academy is from a \$12 million bond issue by the state and a \$6 million multi-year FAA grant.

"The FAA's portion of the project funds the academy's aircraft rescue and firefighting training program," the senator said. "It will allow the academy to be a national model for training firefighters and rescue workers to deal with aircraft accidents."

The state-of-the-art facility is open to all airport crash, fire and rescue staff for basic training. Other facilities include, a modern 4,700 square-foot conference center, a fire research lab, structural drill facilities and a computerized fire simulation system.

Aviation Conference To Focus on New Trends

The South Carolina Aviation Association is gearing up for this year's state aviation conference planning general sessions and concurrent session for airport managers, FBO's, airport commissioners, airport engineers and private pilots.

The 1994 annual Aviation Conference is slated for the Radisson Hotel at Kingston Plantation, Myrtle Beach, November 13 -16. This year's conference will feature Richard Collins editor of Flying Magazine who will present the Aviation Hall of Fame awards, and Michael Stevens with the Airport Council International in Washington, D.C. who will give us the latest Congressional issues.

Other topics included in this year's conference:

- Handling aircraft accidents on your airport with representatives from the FAA and NTSB

- FBO management - airport owned versus corporate owned lead by Frank Anderson of Spartanburg Downtown and Dean Harton of Hawthorne.

- Building a new airport with John Crosby of Concord Regional Airport in North Carolina.

The conference is filled with hot topics and sessions that are sure to enlighten participants.

Of course there will be many opportunities to socialize and mix with other people interested in aviation issues. The annual Hall of Fame presentation is scheduled for Monday evening, and a hangar party featuring wonderful food and entertainment is set for Tuesday.



Sen. Hugh Leatherman

Nestled in the heart of the Pee Dee is a man who is always busy. Whether it's related to his business, his charitable works or his family, Hugh Leatherman is always in the middle of something. Fortunately for South Carolinians, that something has been transportation.

For at least the last 13 years, Sen. Hugh Leatherman has been involved with and interested in all types of transportation. He has served on the Senate Transportation Committee since being elected to the Senate in 1981 and has served as vice chairman of the committee for many years.

But his interests aren't just multi-laned highways and sleek interstate connectors. After college when many people find jobs and start their families, Leatherman was on another route. He was learning to fly at his local airport, earning his multi-engine instrument rating.

"I took up flying as a hobby in the mid -to- late '60s and then it turned into a way for business travel," Sen. Leatherman said. "Aviation is a wonderful mode of transportation. It's probably the safest way to travel."

The senator from Florence has flown a Cessna 411, a Seneca turbo and a Cessna 310.

Being a pilot helped Leatherman understand critical aviation issues and how that legislation would impact other private pilots, commer-

Transportation is Leatherman's Middle Name

cial operations and general aviation airports.

"Understanding air travel was a tremendous help to me when issues came before me at the Senate Transportation Committee or on the floor of the Senate," he added. "I think I have a very good grasp of aviation issues.

"It also helps me when the aviation section comes before the Joint Bond Review Committee," he said. Leatherman admitted that knowing about aviation enabled him to assess what type of infrastructure is needed in all parts of the state.

But Florence, home of the senator, holds a special place for his interests in all aspects of transportation. For

"I think it's crucial we continue and even expand the airports we have; to accommodate larger planes and the industries that need them."

Leatherman, it is one place all parts seem to meld.

"The Florence airport continues to grow and improve," he said. "They currently have an airport terminal expansion under way, and, I think, they have excellent equipment to aid air travellers.

"I think you'll see Florence continue to expand and become even a better airport and become a hub for the Pee Dee section of South Carolina," he said.

Leatherman admitted that flying can be fun, but "It is also the most efficient means for business people to travel. It can also be a means of getting where you need to be when you need to be there. When there's no other way in many cases to maintain your schedule."

Being a successful businessman, Leatherman approaches aviation and transportation as a means to bring business and economic development to the area.

He said improving the infrastructure has been an asset to South Carolina's ability to attract new manufacturers to the state. It also provides an extra incentive for existing businesses to stay and expand in the state.

"We have good airports throughout the state," the Florence senator added. "Good airports and a good air system have an awful lot to do with industry locating in the state. And I think it's crucial we continue and even expand the airports we have to accommodate larger planes and the industries that need them."

Constantly improving our state's airports and aviation system Leatherman said "indicates we are a very progressive state and that we're willing to keep up with times."

"I've been very involved with industrial recruiting in our state, and in many cases that is a factor in where they locate," he said.

Sitting still has never been one of Sen. Leatherman's personality traits, and his contributions to South Carolina's progressive transportation system are a testament to his diligence and hard work.



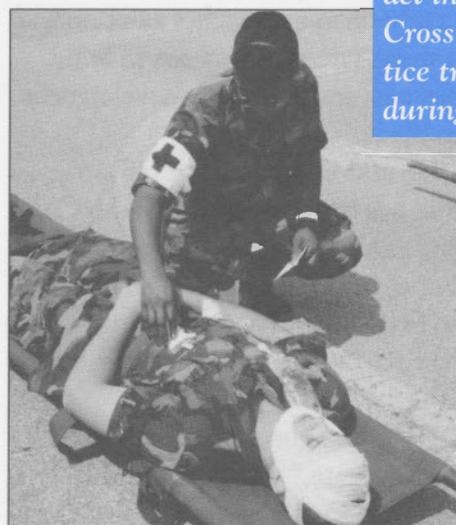
Airsafe '94 Prepares Agencies for Disasters

Columbia Metropolitan Airport recently joined forces with Fort Jackson, the Red Cross, S.C. Emergency Preparedness and the National Guard for Airsafe '94, an emergency preparedness exercise.

The emergency preparedness drill usually simulates a major airport disaster. However, this year the exercise centered on a natural disaster striking the Charleston



Fort Jackson recruits act injured as Red Cross volunteers practice triage techniques during the exercise.



area. The scenario began with a large earthquake causing tremendous damage and injuries.

During the drill more than 100 U.S. Army basic trainees from Fort Jackson and 40 Civil Air Patrol cadets played injured evacuees, who were "airlifted" by a S.C. Air National Guard C-130 to Columbia Metro from McEntire ANG.

The Red Cross provided nurses and doctors with triage experience to

assess the "patients" and other personnel to handle the influx of family inquiries. The recruits acting as wounded were transported to various Columbia hospitals for "treatment."

The emergency preparedness drill demonstrated an airport-wide response involving a natural disaster, tested medical evacuation techniques, demonstrated agency responsiveness to disasters and provided an opportunity to evaluate the airport emergency plan.

Windshear Can Be Fatal *Continued from page 1*

Windshear, according to an FAA publication, is just one of the many unpleasant aspects of thunderstorms. The violence of these storms and their winds is well documented. The two worst problems outside actual storm penetration are shear related. These are the "first gust" and the "downburst."

Most everyone has seen the rapid shift and increase in wind just before a thunderstorm hits. This is the first gust.

Gusty winds are associated with mature thunderstorms and are the result of large downdrafts striking the ground and spreading out horizon-

tally. These winds can change direction by as much as 180 degrees and reach velocities of 100 kts as far as 10 miles ahead of the storm. The gust wind speed may increase as much as 50 percent between the surface and 1,500 feet. with most of the increase occurring in the first 150 feet. The implications for a shear on approach in such a case is obvious.

The other wind problem is "the downburst", which is also downdraft related. A downburst is an extremely intense localized downdraft from a thunderstorm. The power from a downburst can actually exceed aircraft climb capabilities, not only

those of light aircraft but even as is documented in one case, by a high performance Air Force jet.

One thing is certain, there is no way to accurately predict when a downburst will occur or its ferocity.

The most hazardous form of wind shear is that encountered in thunderstorms. The severe, sudden wind change can exceed the performance capabilities of even the most sophisticated aircraft.

The best way a pilot can cope with a shear is to know it is there; know the magnitude of the change; and be prepared to correct or go around.

FYI from the FAA

Thunderstorms Create Turbulent Times

There may be an obstacle in your flight path when you fly this summer – a thunderstorm. The following is an excerpt of an FAA publication called “Thunderstorms – Don’t Flirt...Skirt ‘Em” and is available at your local FSDO.

Every general aviation pilot must contend with thunderstorms of varying intensities in virtually all parts of the country and should be aware that all thunderstorm cells progress through three stages called a life cycle.

The stages are Cumulus, Mature and Dissipating.

The severity of any thunderstorm is governed by the make-up of the mature stage. While

most cumulus clouds do not become thunderstorms, the initial stage is always the cumulus cloud. The main feature of the cumulus cloud which will develop into a thunderstorm, is the predominate updraft. This updraft may extend from the earth’s surface to several thousand feet above the visible cloud tops. During the cumulus stage, tiny cloud droplets grow into rain drops as the cloud builds upward.

When the droplets become too heavy they can no longer be supported by the updraft, they begin to fall. This marks the beginning of the mature stage and usually occurs some 10 to 15 minutes after the cumulus cloud has built upward beyond the freezing level. Thunderstorm cells that progress rapidly through the mature stage are said to be “limited state” thunderstorms.

In the limited state thunderstorms, the mature stage is self-destructive until the updraft will no longer support the rain drops, and precipitation begins to fall through the updraft. When all water droplets have fallen from the cloud, the dissipating stage is complete.

If, in the mature stage, the updraft and the downdraft areas remain equally balanced, the mature stage may then become a “steady state” thunderstorm in which extreme tur-

bulence and large hail may predominate.

Many pilots have flown through “limited state” thunderstorms with little or no damage to the aircraft or passengers. They

can only consider themselves extremely fortunate for any thunderstorm is, again, an uncontrolled “heat engine” and may produce any or all of the most violent weather hazards, such as hail, ice and turbulence, a pilot will ever encounter.

The information contained in this article is a starting point to alert you to the dangers of flying in or near thunderstorm activity. The FAA suggests further that all pilots obtain a thorough weather briefing for the area involved and seriously consider the following in making a Go/No Go decision:

- Pilots, particularly those flying light aircraft, should avoid all thunderstorms.
- Pilots should never venture closer than five miles to any visible storm cloud with overhanging areas because of the possibility of encountering

hail. Hail and violent turbulence might be encountered within 20 miles of very strong thunderstorms.

■ Pilots should be extremely cautious in attempting flight beneath all thunderstorms, even when visibility is good, because of the destructive potential of shear turbulence in these areas.

■ Pilots flying in the vicinity of thunderstorms should, at the first sign of turbulence, reduce airspeed immediately to the manufacturer’s recommended airspeed for turbulent air.

■ Maintain a straight and level attitude on a heading that will take you through the storm area in the minimum line.

■ Do not let compulsion take the place of good judgment – the first decision need not be your last if it’s a 180 degree turn – safety is always professionalism.

Weather Radar...

■ Detects and displays significant weather within a specified sector related to the route of flight.

■ Precisely measures the rainfall density of targets under observation. This can frequently be related to turbulence associated with rainfall gradients.

■ Substantially increases aircraft utilization.

...and its limitations:

Weather radar cannot directly detect turbulence even though it might be related to thunderstorm activity.

For more information about thunderstorms, contact Dick Hitt, FAA Accident Prevention Program Manager, at (803)765-5931. *Kudos go to Hitt who recently earned a BS of Work Force Education and Development at Southern Illinois University and was summa cum laude.*

Hail and violent turbulence might be encountered within 20 miles of very strong thunderstorms.



**SOUTH CAROLINA
DEPARTMENT OF COMMERCE
DIVISION OF AERONAUTICS**
P.O. Box 280068
Columbia SC 29228-0068

**BULK RATE
U.S. POSTAGE
PAID
Columbia, S.C.
PERMIT NO. 75**

This Month... Inside Palmetto Aviation

- **Sen. Hugh Leatherman**
- **S.C. Fire Academy Awarded \$1.1 million**
- **AERO provides materials and services to promote safer skies**

...and much, much more!!

Freedom Weekend Aloft Raises Spirits

Balloons, balloons and good music were all on hand for a July Fourth celebration that kept on going and going.

This year's Freedom Weekend Aloft at Donaldson Center Airpark was one of the best ever with over-

flow crowds and higher than average balloon entries, according to festival organizers.

More than 200,000 people attended the four-day event with about 100 hot air balloons participating in balloon lifts twice a day.

Freedom Weekend Aloft is like many air shows that highlight family entertainment. Tables and booths filled with arts and crafts, a children's area with rides, and sponsor displays were all on hand to entertain the crowds. At night fireworks burst

through to end the day's events.

"We get a lot of exposure for Donaldson Center with Freedom Weekend Aloft," said John Ferguson, manager of the airport. "The festival is really an asset to the community."

The July Fourth festival attracts thousands of visitors every year who enjoy the combination of musical groups, family entertainment and hot air balloon races.

This year's Freedom Weekend Aloft began on July 1 and continued through July 4 and featured musical groups such as America, Little Texas, Suzie Bogus, Bruce Hornsby and the Allman Brothers.

