



Wings Newsletter

What is so great about the club?

By Ronney Moss

One of the privileges I have is giving people the “50 cent tour” and show off the club to potential members. One of the questions I try to answer is “Why would anyone want to shell out all that upfront money to join a club with monthly dues?”

I start with the airplanes which are what probably attracted them. For a more experienced pilot we have a wide variety of airframes to match various missions. Not much beats the mighty 152 for honing your skills and experiencing the joy of

flight at a relatively low cost. The Warrior and the Skyhawk are solid IFR platforms that can carry a descent load.



Cessna 152

You can sharpen your instrument skills and/or take the family to the beach for a reasonable fee. The Mooney is legendary for economy and speed. Club members regularly fly to New

York, Houston and Detroit because they can afford it.

Compare the hourly rates of the club and you will notice the rates are lower. This is offset by the monthly dues. The break even point encourages you to fly more often. One of the reasons the cost is lower is because our insurance fees are lower, because our pilots tend to fly more. The cost of insuring an owner is lower than insuring a rental operation. The deposit emphasizes that club members are partial owner. This means the club

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Visit Columbia (SC)

By Alice Ann Reu

Columbia, SC lies just 134 NM to the south of TTA making it a great choice for a day trip to visit the nationally acclaimed Riverbanks Zoo or for strolling through the revitalized downtown Vista area for shopping and dining. It's also the home of the Curtiss-Wright Hangar

(CWH) revitalization project at “Downtown Columbia”, KCUB.

The first building constructed at Owens Field in 1929, it is a unique and historic South Carolina landmark. Initially, the Hangar was used to house aircraft and as the Capitol City's main Terminal

to support passenger and airmail services to the Columbia area and was designated the headquarters of the South Carolina Aeronautics Commission. Later, it was used for the civilian flight training programs and finally for general aircraft maintenance. During the 1930s, Owens Field had

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What is so great about the club?

(cont..) member has responsibilities for maintaining the aircraft. "You mean I own the airplane?" You own a share of it. It is like a few hundred of your friends got together and bought an airplane, or eleven.

Club members get together on Wednesdays and wrench on our airplanes, John Hunter provides oversight. One of the major benefits is being able to learn how to maintain an aircraft. Another reason our rates are lower is the fact that these are not rentals.

"Do you know what the difference between a four wheel drive and a rental car is?...There are some places a four wheel drive car won't go."

Club members care about the aircraft because there is ownership.

This is generally when I show them the hanger and let them know it was built by club hands. As a matter of fact the organization rests on the fact that this is our club. If you don't like something

you can probably change it. The snack bar had a limited variety until some hungry club members asked if they could take charge. Klondike bars, moon pies and frozen pizza fly off the shelf during ground schools. Put your money in the red tin if you

want something. "Why yes the club offers ground schools for private, instrument and commercial."

The tour is similar for the potential student pilot with a few additions. Our flight instructors are club members and work for the individual rather than the organization. This means our students come first, our loyalties to the club are as a member rather than as employees. We provide individual instruction and get paid directly by the client. There is no external



pressure to fly. Aircraft maintenance, weather and more importantly student progression determine if and how much we fly. Our profit margin is not directly tied to the hobbs meter. It is a non-profit organization. We have a large stable of instructors, a motley bunch for sure, but they are dedicated professionals with a passion for flight. A wide variety of backgrounds and personalities provide a suitable match for almost any individual.

But the real response to the question is generally answered when I introduce them to a club member. The people make the club a place to grow as a pilot. We have an eclectic mix of aviation enthusiasts. College professors, cabinet makers, right-wing gun-nuts and tree-hugging liberals gather peacefully together to learn from each other. We love flying and it shows. When introduced to a fellow club member the sincere interest is almost immediately evident. I am one of the luckiest people in the world. I get to fly around with my friends.

-Ronney Moss



Message from the 2014 President

By John Gaither

The New Year got off to a windy start, compliments of the weather gods, with the January Second Saturday. Fortunately, the weather didn't actually interfere with any of the festivities, including the plane wash. Mark the February Second Saturday on your calendars and plan to join the fun – and great food!

Some of you may know that I lived most of my life in Chicago. You may not know that Chicago got its name as the "Windy City," not for its strong winds off Lake Michigan, but rather for its long-winded politicians. Well the many of you who attended the January board meeting might have thought that you had elected a board from Chicago as the meeting did not adjourn until late in the evening. Thanks to all who attended and provided their thoughts and views. Here are a few highlights of the meeting.

A key objective for 2014 will be reversing the downward trend in flight hours over the last quarter of 2013. The board reviewed the comments that I had received in my informal survey of members as to why they were not flying. The principal items mentioned were weather and various personal life events for individuals. Interestingly, instruction hours were not particularly down compared to earlier in the year. It seems that many of our members just got out of the habit of flying during the TTA shutdown. With luck, some Club events such as dinner flights and Club trips will help members get back into the habit. Lots of other ideas were offered as well.

Increased marketing of the Club will be a key initiative for 2014. Our lifeblood has always been new members, particularly ones coming through the Private Pilot Course. Eighteen new students started the Private course last week, but this is down from nearly 30 a year ago. We are hosting the AOPA's Rusty Pilot program next week on January 23. This program is



designed to get non-current pilots back into flying. Lots of ideas were proposed during the meeting as to how to increase awareness of the Club. We need a new key marketing volunteer. John McNeil has asked to transition out of this position after holding it for several years. Thanks to John for his service. Please let me or another board member know if you have interest in this vitally important position for the Club.

Another key initiative for the Club in 2014 will be the building project. I

have appointed David Greenfield chairman of the building committee, which will help design and make recommendations for the maintenance facility expansion and refurbishment of the Club facilities. He plans to hold two member meetings in late January or early February to present the plans to all members for comment. Current designs under consideration that were presented at the Annual Meeting of members remain in the News section of myFBO. Members of the committee also include Chris Berg, Jim Carlson, James Garlick, and Steve Joseph.

I appointed Jan Squillace chairman of the Safety Committee and Len Felton chairman of the Fleet Committee. Both are organizing their committees and we will appoint members at the February board meeting. If you are interested in these committees, let Jan or Len know. The most visible activity of the Safety Committee are our Pizza Nights. If you have ideas for Pizza Night presentations, be sure to let Jan know.

I look forward to seeing you on the flight line or at future board meetings. Remember that board meetings are held on the second Tuesday of each month in the Club multipurpose room.

-John Gaither
President

The flying life—and what it means

By George Scheer

The glow of a sunset in the wind-screen, the twinkle of city lights in the darkness, the freedom to travel at a moment's notice unfettered by airline schedules, the companionship of the pilot fraternity — this is the flying life.

Well, yes, I suppose. How about nights waiting out the weather in third-rate motels in towns I never intended to visit? How about that moment when my flying companion asks, "Are we going to be all right?" and I answer, in my most confident voice, "Of course, trust me," as the lightning explodes in the clouds and I wonder, with secret dread deep in the pit of my stomach, "What in the world was I thinking to launch us into this weather?"

How about the telephone call from my insurance broker who tells me that, even though I've never so much as scratched the paint on an airplane in ten thousand hours of flying, my insurance premium for this coming year would buy me a car twenty years newer than the truck I'm now driving? How about the 14-hour car trip I made because my airplane was still in the shop? How about the airworthiness directive that mandates a hideously expensive fix to my airplane because 15 years ago some idiot flew into a thunder-storm and managed to wrench the wings off a perfectly sound airplane (which we know I would never do; see Item No. 2)?

How about the nagging suspicion that I just bought \$40,000 worth of new engines that burn a petroleum product that pollutes the environment, is considered a nuisance by the companies that refine it, and is thought by everyone to be on the endangered species list? How about

the advertisements I see every month in the glossy flying magazines for truly miraculous new avionics that I will never be able to afford (see previous item)?

Are we beginning to bring the flying life into sharper focus?

I also have the rare privilege of being paid to teach eager acolytes to fly. Among my hours as a flight instructor, we find so many heart-warming moments. For instance, the words of the student pilot as he wrote me a check for \$25: "You know, I pay my golf instructor \$90 an hour." With some embarrassment, I confess to have thought — just for a moment — "Well, that makes sense. He cured your slice. All I did was keep you alive through five of the sorriest landings I've ever witnessed."

There was the night when unforecast weather steadily reduced the ceilings and visibility to minimums and I was number seven on vectors for the ILS in wicked turbulence and torrential rain with a pilot at the controls who had never before flown an instrument approach. I recall the fleeting suspicion that by allowing him to continue the attempt I would be indulging suicidal impulses he did not deserve to share. I knew he was afraid. If you have ever heard the sound of driving rain impacting the fuselage of a small airplane you understand.

And yes, there have been accidents. We don't like to call them crashes. "Off-field landings" is the preferred term. Fortunately I have never been aboard and none has seriously harmed the friends who have been, but it would be disingenuous to pretend that the risk is not ever present.

So, is this the flying life I imagined as a small boy, soaring without care

through the sky in my imagination? Not exactly. Here's the thing: We love not because of but in spite of. We may fall in love — whether with our mate or our passion — because of her twinkling eyes or its childish appeal, but we continue to love in spite of the frustrations, the anguish, the expense, the occasional fear, the periodic futility. Occasionally it leads us into folly. We try again. We continue to love because we cannot do otherwise. Sometimes we don't even understand why.

Now and again we are permitted a glimpse. That night on the ILS, my student — his body rigid with apprehension — asked, "Will we be all right?" That question again. Again, the same answer, "Trust me. You can do this. I'll talk you through it." I did and he could. A small airplane on a dark night in bad weather is a very intimate place. Together we went somewhere he never thought he could go, and together we proved to him that he could do something he never thought he could do.

That is the moment. The moment when my companion looks at me and asks, "Will we be all right?" The moment when I can answer, "We'll be fine. Trust me." And she does.

I think also of a moment many years ago. A little boy, the only son of my dearest friend, a friend sadly now gone, used to look up into the sky whenever an airplane passed overhead and yell, "Geooorger!" Now and then I imagine, years from now, when I could well be just a memory, that boy and his son looking up into the sky as an airplane sails above and the throb of its engines drifts down toward earth and saying, much more quietly, "Geooorger."

Charlotte Douglas International Airport... in a Warrior

By Brian Grant and Brian Tesar

On a Friday evening last January, my partner and I were about to step into a weekend with spectacularly clear, calm, and mild weather, no plans and a Piper Warrior at our disposal. It wasn't long before we had our laptops out scouring aeronautical charts and the far corners of the internet to find a new and interesting place to explore.

I recalled the story of the Airbus A320 that Chesley Sullenberger and Jeff Skiles so perfectly glided to a safe landing in the Hudson River, and how that very aircraft had been trucked to Charlotte and put on display at the Carolinas Aviation Museum. More internet scouring revealed that the museum is in a hangar on the field at the Charlotte Douglas International Airport. Neither of us had been to that museum, nor had we ever flown ourselves into CLT. Our interest was piqued.

The museum's website provided lots of helpful information on how to visit the museum by car, but any information regarding visiting by aircraft was conspicuously absent. Surely an aviation museum physically located on an active airport must be accessible by aircraft, right? We had a challenge.

On Saturday, I called the museum and explained that we were interested in flying our little Cherokee into CLT the following day and visit the museum. He began to tell me something about a FBO and a van. That would be pretty cool, but I felt a bit deflated. So I asked if it would be ok if we just parked on the museum's ramp outside their hangar (I had done some satellite view map research). Ummm. Pause. "Let me let you speak with someone else..." Great! Someone in charge.

The next friendly and helpful man on the phone explained that they were not really set up for what I was requesting, something about security, the TSA, and an active ramp at the sixth busiest airport in the world according to traffic movements... but it would be fine. Wow! Success! I told him we

would plan to arrive after lunch, visit the museum for an hour or two, and then head home before dark. He told me to park just outside the large hangar door, next to the 1957 Douglas DC-7. He would leave a set of chocks out for us. We were to call him from our cell phone so he could unlock the secure pedestrian door from the museum and escort us inside. Permission granted.

Flight planning was simple. GPS direct VFR from Person County (TDF) to CLT. We are both Wings of Carolina members, but we also share ownership of the Piper Warrior used for this trip, which lives at TDF. Weather was no factor, and we would pick up VFR flight following from Greensboro after takeoff from TDF. The trip is 115NM, so that's about 60 minutes in the Warrior. Full fuel to start, worth no more than four hours according to our personal minimums, would be plenty for the round trip. We found a few good VFR checkpoints on the chart that we could expect to see, and we were ready. Of course we would get a thorough briefing just before departure. Planning done.

Were we intimidated? A little. But we knew that if we understood what was expected of us by ATC, communicated clearly and correctly, payed attention, prepared well, and flew precisely, then it would all go smoothly. We are comfortable with procedures, and that's all this is, really.

We decided that Brian T. would fly and I would operate the radios. We expected a heavy communications load, so we would share the work. Sunday was clear with unrestricted visibility and light winds, just as promised. Off we went.

We picked up VFR flight following from Greensboro and told them our destination was CLT. No issues there. We listened to CLT ATIS and learned that arrivals were using 23, 18L, 18C, and 18R. When we got the ATC handoff to CLT Approach, the controller cleared us into the Class Bravo air-space and gave us a heading that would lead us to a point just to the east of the city. Then we got a right turn that set

us up for an extended left base for 23. We could see countless USAirways Boeings and Airbuses lined up out of sight, all on a visual for 23. The controllers made a nice spot for us and allowed us to slip into line, left base to final for 23.

On that extended base, we were handed to the tower and promptly heard, "Cherokee blah blah blah, cleared to land runway 23, advise five mile final, left turn any exit when able, please keep your speed up." An amazing view unfolded in our windscreens. What a glorious sight of a beautiful and complex airport. Three chirps from the tires and we were down.

Off the runway and stopped, and the ground controller immediately started giving us taxi instructions to the GA ramp. I politely asked for instructions to the museum via Alpha. I had



the airport diagram in my lap. "Proceed as requested, cross 18L, to the ramp this frequency." Done.

We parked outside the museum as we had been told the day before, next to the chocks left for us, and near the DC-7. The chocks would have worked for a 777, but they wouldn't fit under our wheel pants, so we set the brakes. It would be fine. A quick cell phone call later, and we were greeted to an open door, a smiling face and warm welcome.

The museum was excellent, with flight 1549 being the centerpiece. Sully's Airbus is displayed in the same condition it was in when pulled from the Hudson. You can see the dents from the impact, and the cuts and scrapes from the ferry boats that pulled everyone to safety. It was moving to

Visit Columbia (SC)

(Cont..) the distinction of hosting many well-known aviators and dignitaries, including Amelia Earhart and President Franklin Delano Roosevelt. The Hangar was listed in the National Register April 30, 1998.

The completely restored Curtiss-Wright Hangar will serve as a historic landmark, an event venue and destination restaurant.

A majority of the building will be used as an event venue with 8,000 square feet of open assembly, dining, museum and banquet space. This space will house the B-25C Bomber which is currently in the hangar. The Restaurant will spill into the main open Hangar space and diners will have the opportunity to sit beneath the wings of the B-25C in a portion of the Aerospace museum.



The Hangar and Restaurant will be ideal for museum space to host an array of aviation and military exhibitions and the CWH team are currently working closely with The South Carolina Historical Aviation Foundation (SCHAFF) schistoricaviation.org/

For more information on the project and how you may contribute, please visit Columbia-hangar.com.

-Alice Ann Reu

(with permission from CWH Partners)

2014 Events

By David Greenfield

2014 is going to be a great year at the club. So much is going to happen, your going to want to keep your eyes and ears open so you don't miss anything. As far as club trips, our first trip will be one we did a few years. It was such fun that it is time to take this one again. We will fly to Hickory NC and tour the Hickory Aviation Museum. This museum is on the field at KHKY, we taxi right up to the door! Nice small aviation museum, something to wet your appetite. Then we will fly to Charlotte. Yes, Charlotte Class B airspace. For those who have never flown into Class Bravo, this will be an experience in itself. Once we land, we will taxi up to the door of the Carolinas Aviation Museum. This museum is a modern, new avia-

tion museum that is truly a hidden jem. (See story on page5)

Our second trip we will head South to Lancaster, SC (SC79, look it up on your sectional). There we will land on a grass strip, I am sure this will be a first for most members. Why SC79? Gliders! We have all had our instructor pull the engine on us and say "you just lost your engine." I think Betsy stays awake at night thinking how many times she can do this to her students, but that is another story. We are all going to try our hand at flying one of these birds. Everyone will sit down for an hour ground school on gliders and how they differ from powered flight (yes, I know there is no engine). Then we will take turns going for a 20 minute flight. This will be a day you do not want to miss...

grass strip, soaring and pizza.

Something new this year will be monthly dinner flights. I will be working with Jim Carlson to organize short trips to a close by destination for dinner. We will meet at the club around 6 PM, fly no more than 45 minutes, eat dinner, and return. The goal is to take a short flight, eat dinner with the best group of pilots anywhere, and get back to TTA by 9:30 PM. The perfect pilot's evening.

This is just a quick overview of what is to come during 2014 at the club. Watch your email so you so not miss anything.

In the mean time, wings up, dirty side down, eyes outside the plane, and have fun!

Charlotte Douglas International Airport... in a Warrior

(Cont..) stand by the wing that was the perch for all those people who had just survived the seemingly impossible, waiting for rescue. And our little Cherokee was parked just on the other side of the big door right there. Very moving, indeed.

While walking among the exhibits, we noticed that we were being observed by many of the staff. Finally an older gentleman approached us and asked if we were the ones who flew in. Apparently we had created quite a stir among the staff. Cool. He was curious about that. How were the controllers? Were they rude? Was it confusing? Was there any trouble? Did they question our taxi request to the museum? I was glad to report that our experience was nothing but pleasant, positive, and professional. He was pleased. So were we. After a while, we found our host and

told him we were ready to head home. He unlocked the secure door and walked us the few steps to our plane. With a smile and a handshake, he bid us farewell and told us to come back again.

Giving us our departure clearance, the Ground Controller apologetically asked us to hold for about five minutes because they were in the process of "turning the airport around." The light wind had shifted. That must be quite a process for a busy airport like that. A few minutes later we were cleared to 36R via Alpha, Delta, Delta Three, cross 36R, Charlie Four and Charlie. Sounds complicated, but a quick glance at my handy airport diagram and it made perfect sense. Off we went.

We arrived at 36R, first in line with the airport turnaround taking place. We did our runup as the Boe-

ings and Airbuses started to line up behind us. That was another awe-inspiring sight. It felt great to operate among those professionals. With them.

After the airport was turned around, which only required a few more minutes, we were cleared for takeoff, runway 36R, when able turn right on course. As we headed down the runway, we heard the Airbus behind us get a line up and wait clearance. We turned right, which put us over 23 where we had landed earlier. I saw the museum and the old DC-7 slip away below us.

We climbed out, on course for TDF, right over downtown Charlotte. About then, the tower gave us the, "Cherokee blah blah blah, contact departure, goodday. Good day, indeed.

- Brian Grant and Brian Tesar

Airport Re-opening Celebration

By Keith Silva

Since most club members look forward to Second Saturday club gatherings, what better way to close the KTTA runway resurfacing project than an Airport Re-Opening Celebration? Flying events, bounce house, BBQ lunch, music and hangar flying ... oh yeah! Saturday, November 9 opened with perfect flying weather: clear skies, cool temps, and light southerly winds result-

ing in a Runway 21 pattern.

The Spot Landing Contest mirrored the commercial checkride maneuver: power to idle on downwind abeam the aiming point (1000 ft markers) ... but don't land short! Judges Mauricio Castro, Barbara Eldredge, Mark Leydecker, George Scheer, and Joe Sunday noted each landing and provided feedback to the 12 participants. Bob Flynn came in third at 31 feet, Steve Lynn

was second at 5 feet, and the how-can-you-beat-that winner was Gene Weaver who landed exactly on the line!

The Flour Drop Contest challenged each participant to drop a flour-filled sack on a target, located in the field off the departure end of

Runway 21. After a normal downwind and base, pilots maintained 500 ft. AGL while overflying the target. Judges Matt Kessler, Bernhard Mueller, and Keith Silva noted drop locations and radioed results. After the 9 participants each dropped three times, Bob Flynn was the runner-up at 40 feet, and Steele Scott bested the field with a drop 14 feet 6 inches from the target. The flying competitions attracted many interested observers, and did a great job building the appetite of everyone in attendance. Soon enough the catered BBQ solved that, and many club members and guests enjoyed the music, bounce house, and aviation ambiance well into the afternoon.

All club members received a "Member Appreciation" t-shirt which Marketing Key Volunteer John McNeill designed and produced. David Greenfield coordinated the overall event, with help from many volunteers ... a Wings of Carolina hallmark.



2013 Certificates

It was a busy year in many regards at the wings of Carolina flight club, even with having to be away from our home base our amazing flight instructors still managed to produce a steady stream of new certificates. Congratulations to everyone who attained a new certificate in 2013

FIRST SOLO

Tom Clephane 6/11/13
 Joe Izatt 5/15/13
 Justin Khan 6/12/13
 Michael Lambert 8/15/13
 Eron Nicholson 3/20/13
 Caleb Oosterhouse
 Zachary Rogers 10/4/13
 Miriam Stambach 7/17/13
 Michael Thelen 3/23/13

PRIVATE

Rahul Goswami 11/11/13
 Jesse Kalisher 5/28/13
 Brian Lipscomb 2/24/13
 Helio Lobo 6/1/13
 Charles Lumsden 5/28/13
 Bob McCarthy 1/4/13
 Adnan Nasir 5/26/13
 Eron Nicholson 8/29/13
 Jonathan Parker 1/7/13
 Alice Ann Reu 9/25/13
 Robert Rikard 10/2/13
 Jonathan Rollman 3/30/13
 James Schultz 4/27/13
 Ruth Anne Sneath 11/22/13
 Ken Welch 6/17/13
 Joseph Zambon 6/8/13

INSTRUMENT

Harrison Ashworth 6/26/13
 Matt Birely
 Andy Doebler
 Bob Ficklin 4/20/13
 Brian Lipscomb 7/23/13
 Chris Wilson
 Martin York 8/17/13

COMMERCIAL

Harrison Ashworth 9/26/13
 Ren Babcock 6/25/13
 Cesar Freitas
 Keith Silva

INSTRUMENT GROUND INSTRUCTOR

Harrison Ashworth 9/11/13

CFI - Add On

Harrison Ashworth 11/23/13

CFII

Harrison Ashworth 11/07/13



2013 New Members

New Staff

James Garick, WCFC
 Airplane Maintenance

New Members

Joseph Baden
 Jon Battigelli
 Richard Benton
 Jonathan Bohlmann
 Steven Bowe
 Christoph Breitenstroter
 William Brooks
 Michael Clements
 Mackenzie Clements
 Jim Cronin
 Arnold Dale
 Lucas Dalglesh
 Billy Dalrymple
 David Dorsey
 Albert Everette
 Robert Ficklin
 Bryce Fisher
 Jennifer Fisher
 Robert Flynn
 David Gentile
 Vincent Grady
 Louis Guillama
 Jeffery Hetzler
 Robert Higbee
 Zdenek Holy
 Christopher Houck
 Weintraub Jacob
 benjamin Keller
 Bryan King
 Kevin Klump
 Don Koch
 Mark Kolber
 Anthony Kram
 Harry Kuhlman
 Michael Lambert
 Helio Lobo
 Matt Lyle
 Georgia Martin
 Christopher Martin
 Martin McConnell
 Michael Moran
 Steve Morelen
 Steven Moy
 Geoffrey Myers
 Caleb Oosterhouse
 Sachin Patel
 Steven Raedy
 Lindsey Reed
 Zachary Rogers
 Andrew Rowland
 Sevryn Schaller
 Brian Seay
 Kirk Smith
 Jacob Snyder
 Daniel Stellini
 Caleb Tappan
 Darrell Taylor
 Luke Vogel
 Tracy Waters
 Robert Weintraub
 Kenneth Welch
 Robin Whitsell
 Jason Wilkinson
 Gary Wrayno

2013 Maintenance Department News

This year, the WCFC restructured its maintenance department with the addition of James Garlick, who joined the club in 2008 and earned his private and instrument ratings flying with Betsy McCracken and Ronney Moss. James, who has a background in things mechanical, chose to pursue his A&P (Airframe and Powerplant) certificate and become an Aviation Maintenance Technician. Fully aware that other opportunities were available to him, James chose to accept a position with the club and join John Hunter, who has managed and executed the maintenance of the club fleet for decades (and served in every other capacity as board member, president, chief instructor, and club conscience), to care for our airplanes. This year John Hunter finally took the time to earn his IA (Inspection Authority), which will allow him to perform annual inspections on aircraft and sign off for return to service on major repairs and alterations. Together, John and James constitute a formidable WCFC maintenance department in which all of us who fly club airplanes place our trust.

2013 Recap

-By Alice Ann Reu

2013 was an event-filled year for the Club. Not accounting for the myriad regular, everyday administrative jobs that go hand in hand with running a Club like ours, the year was filled with fun, friends and many, many events, accomplishments and challenges.

We rang in the New Year with a brunch flight on Sunday January 13th, to Person County where our destination was the Homestead Steak House. Great food, fun and friends!

We flew north to Luray, VA, to visit Luray Caverns in April, where we enjoyed lunch and a view of the most amazing caverns - cathedral-sized rooms with ceilings 10 stories high, enormous chambers filled with towering columns, shimmering draperies and crystal-clear pools. An excellent day trip!!

In August we made a flight to Warrenton, VA, to visit The Flying Circus. Planes from the 20s and 30s. Open cockpits, fly-by-the-seat-of-your-pants planes. A pilot's dream show!!!

The Airport Reopening was celebrated in grand style on November 9th and we kicked off the day with old-style flying competitions – the flour sack drop and a spot landing contest. Expert pilot Steele Scott won the flour drop and Gene "stick and rudder" Weaver won the spot landing competitions. After some 25+ pilots competed, the live band started playing (another first at TTA) and the buffet catered lunch was served. Count on a repeat of this fun filled day!

We hosted several Pizza Nights this past year where we enjoyed many interesting speakers as organized by the Safety Committee. Bob Sutherlin, the FFAST team super-



visor for NC
d i s -
cussed

"Abnormal Flight and Emergency Situations." Mark Kolber gave a terrific program on mountain flying and talked about his flying and instructing in Colorado. In June we hosted Jason Miller, a founder of FOREFLIGHT, a favorite app of many pilots, both recreational and professional, who discussed using the IPad in flight and walked us through the entrepreneurial journey of developing this app. Carole

Move." With a multi-million dollar runway rebuild in the offing, the Airport Authority decided to suspend all airport flight operations for the duration. The Club undertook an exhaustive effort to determine how we could continue to function and serve our members for the predicted three months of construction and runway closure.



Ann Garrett captivated us with her presentation describing her 3 trips around the world in her Mooney - the first remains a world record! - and her fund-raising efforts to benefit ALS – Lou Gehrig's disease. And to cap off the year, Len Felton and Grover McNair gave a thrilling recount of their trip to Alaska and the Canadian Rockies. The photography was extraordinary. Many thanks to Dick Kenney for the great and varied programs that he organized!

Our Board and Key Volunteers continued to manage the business of running a business. In addition to changes in our accounting, software and hardware needs, building maintenance and upgrades, we had a Facebook page created for us and have moved further into the arena of social networking. Be sure to "LIKE" us!!!

Ultimately, though, our year may have been defined by "the Great

In the end, and after multiple negotiations by our impressive WCFC team, we made a short term base camp for pilots, students and instructors at BUY for the (4) 152's, (2) 172's and a Warrior while the Mooneys, a 172 and a Warrior resided at RDU for cross country flights. The daily administration of the Club continued on, behind the scenes and very often unappreciated. Pilots kept flying, instructors kept teaching, students kept learning and, well, maintenance kept on maintaining, albeit from the back of one car or another..... By Halloween we were back home at Raleigh Executive in our familiar surroundings and on 9 November we celebrated with the biggest party of the year. It was a monumental effort despite this short recap and there are simply not enough thanks to go around to everyone involved. WE MADE IT!!

The 30,000' Interview with Betsy McCracken

What got you started in Aviation?

After 28 years teaching high school in MD, my husband, Conrad and I retired to NC. The manager of our country club owned a Bonanza which he kept at the old Sanford airport, W77. He suggested that I go out to try flying lessons. The rest is history.

Where did you learn to fly and in what aircraft?

I began training in a C152 at W77. When the instructor obtained a C172, I moved up to "big iron" and completed my Private Pilot at the age of 50.

I went to a grass strip, 58J, in Timmonsville, SC, near Florence, to get my Instrument training in a Beech Skipper with one VOR and an ADF. This is where my Private Instructor had gone to get his.

For a Commercial license you must fly a retractable gear aircraft. I found a C172 RG at SOP, Southern Pines airport and an instructor to teach me.

I believed that a more struc-

tured environment was required to learn to become an Instructor, so I went to American Flyers in Cleveland, Ohio for my CFI-I in a C172 RG. Part of the training was doing spins over Lake Erie.

What are your total hours?

My total hours are 5,900, all but 18.2 of which are in Airplane Single Engine Land aircraft. The 18.2 was in George's twin Comanche TA, which is great fun to fly.

What do you think is the hardest part of learning to fly for new student pilots?

I think the hardest part of learning to fly for new student pilots is the commitment of time, energy and money to complete the training. Life often gets in the way.

If you could change something about general aviation today what would it be?

If I could wave a magic wand, I would make aviation available and affordable for any one and every one who is interested.

Where has been your favorite place to fly for personal pleasure?

My favorite place to fly for pleasure is a tie: either Christchurch and the South Island of New Zealand, or Oahu and



Molokai Islands of Hawaii. The scenery is absolutely breath-taking.

What is your favorite airplane in all the world to fly? (and why?)

My favorite airplane to fly was my old C182 Skylane. It was high performance at 230 horsepower, with long-range tanks that flew me to Florida without stopping for fuel. When I began teaching seven days a week at WCFC, it no longer made economic sense to keep it, so I sold it.

What has been your scariest moment while teaching in the cockpit?

My scariest moment while teaching in the cockpit was when my student turned from base to final and announced that he was having a panic attack and we were both going to die...we didn't!

What advice do you have for newly minted private pilots?

My advice to newly minted Private Pilots is to go out and exercise the privileges of your certificate. Fly as much as you can to build experience. Continue your training and have fun! An aviation expression goes: "There are old pilots, and there are bold pilots, but there are no old, bold pilots."



A New-Look Newsletter for 2014

It's been just over a year since the last wings newsletter. It's been a busy year and as happens from time to time we get busy with life and it gets difficult to find the time. We are however planning a newsletter to be published every quarter.

Our thoughts are that we will have a few regular sections that will be in every edition, but also a couple of edition specific articles too. Here are a few of the sections that we hope will become regular sections in our newsletter:

Trip stories and Ideas, New product, app, book reviews

(If you have a new aviation toy, we want to hear about it), For Sale section, Photos (Have you got some interesting photos you personally have taken? Share them here. Available in full color in the electronic edition), Student Stories (Articles from students working towards certificates. What was it like for you to solo for the first time? What was it like to do your first commercial 250 Nm x-country flight?). Instructor stories, and of course News about the club to keep the membership involved and up to date

We will continue to have a paper and electronic version of the newsletter. So if you have a story

or other content that fits the sections above, or you have ideas of your own, then send them to us.

We would also ask that when you are done with this edition of the newsletter that you leave it in your place of work, at your gym, school or anywhere else that someone with a budding interest in aviation might find it. Maybe it will inspire someone to come out to the club and check us out.

-Alice Ann Reu

-Barry Moore

X Marks the spot

A great tool for student pilot VFR flight planning? The Pilot Frixion erasable highlighter. Highlight your route of flight with these, and then erase the line effortlessly so that your sectional stays clean. (Think there is a coincidence this manufacturer is called

"PILOT"????) On a nice note, Pilot contributed 10% of its gross profits from each pink ribbon product, such as the pink Pilot Frixion highlighters, up to \$100,000 to the National Breast Cancer Foundation.

Packages of "pink only" are available at

[Amazon.com](#).

-Alice Ann Reu



No more low riding

Ever got out of one of the club airplanes after a bumpy cross country and find that the next morning you are a bit stiff from all that leaning into the stick and hanging on to the throttle? Ever gone for a spin around the traffic pattern in N89333 and it feels more like you are cruising the strip in your low rider 50s Chevy? I was in a dollar tree store a few months ago and found this little gem for about em.. \$1. Its flimsy and of questionable quality, but this really worked. I bought 3 of

them and none of them have busted yet. There is a back strap that goes



around the back of the seat on the airplane. It keeps it tight and does not

move around. It gives the pilot another 2 or 3 inches of back support. Best of all it provides a cushion of air between the pilot and the leather seat of the plane. Enough to keep the summer sweats off for a bit longer in mid-august. Highly recommended. Amazon.com is selling something similar for about \$13, and of course for those with deeper pockets check out sportys for all sorts of back support products.

-Barry Moore

Fuel Safety

Self-Fueling Safety

We've been self-fueling our cars for a lot of years. We generally do pretty well—unless we are smoking or leave the engine running, the two most common causes of fires at self-serve service stations. Yes, those signs by the pumps are there for a reason. Cars do get crispy-crittered when incredibly basic cautions are ignored.

Airplane self-fueling presents a slightly different risk. We did not find evidence that pilots had managed to set airplanes on fire via cigarette or leaving the engine running while self-fueling.

Vapor

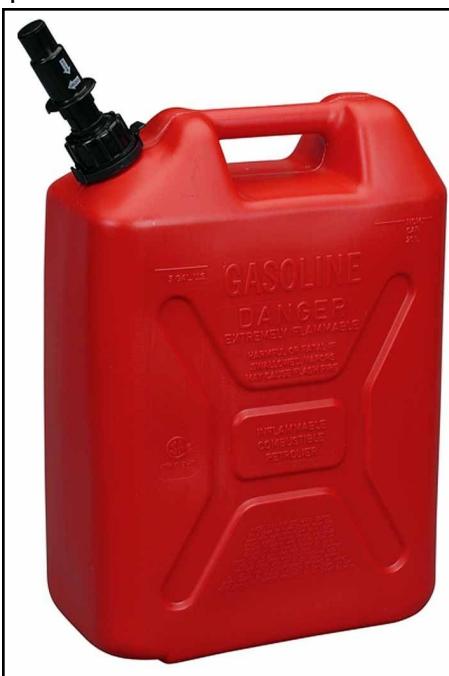
The risk in any refueling exercise is a spark that ignites fuel vapor—and it's the vapor part of fuel that explodes in the cylinder to provide the power we need to fly. We'll not go into the sheer energy locked up in avgas and jet fuel, but will point out that avgas has a flash point—temperature above which the liquid produces ignitable vapor—of -40 degrees F. Therefore, you're dealing with vapors that will blow up just about any time you're dealing with avgas. For jet fuel the temperature is 100 degrees F.

If there is liquid fuel on the ground—say after a spill—and the vapors ignite, the flame front for jet fuel moves at a paltry 100 feet per minute. Avgas is much faster, just over eight MPH. What kind of shape are you in?

Jet fuel will autoignite at something between 410 and 475 degrees F. That means if it spills on something that hot, it will start burning. Avgas autogonites at 842 degrees F—the

temperature of an exhaust pipe or turbocharger after it has cooled down a bit. (Do you really want to hot fuel?)

With all of that background, the big risk for sparking off a fire while fueling is static electricity. Airplanes build up a static charge flying through the air. A liquid, such as fuel, builds up a static charge when flowing through a hose or tube. Let's keep that in mind as we think about what we do when we taxi up to the self-service fuel facility on our airport.



Take a Moment

Rather than anxiously hustle up to the credit card machine, wondering if you can make the thing work or if it will take your card, take a few moments to eyeball the ramp and facilities. Which way is the wind blowing? That's your exit route if something goes wrong. Is it there a way to get away upwind, or is there a fence or something else blocking the route. Is there a comfortable place, upwind,

for your passengers to wait while you fuel the airplane?

Where is the emergency fuel shut-off? The deadman that is supposed to shut off the fuel at the nozzle has been known to fail. Where is the fire extinguisher? It may not be big enough to put out a fire, but it can be a good emergency exit maker if you need to smash out a window.

Is the airplane level? If not, you may not be able to fill all the tanks completely. That may be a big deal in determining how much fuel you really have on board on airplanes with long, slender fuel tanks in wings with little dihedral, such a Cessna 210. In some airplanes you'll need to position the fuel selector to the left or right tank to avoid draining fuel from one tank to another and then onto the ramp during fueling.

Bond It

The next step is to hook up the grounding or bonding wire (it's the same thing, the name varies by whether you are electrically grounding the airplane or bonding it to the fuel delivery unit). Remember where it is, as it could trip you if you are trying to boogey out of there in the event of a fire.

Then go wrestle with the credit card machine and get the pump activated.

With the fuel hose and nozzle in hand, touch some portion of the airplane before you touch the fuel cap. The bonding wire should have taken care of things, but this is just extra protection against a static discharge and spark—and there may be fuel vapor in the vicinity of the fuel cap.



When fueling, keep the nozzle in contact with the airplane. This helps keep the fuel delivery system and airplane electrically bonded.

Because aircraft fuel systems deliver fuel at a much higher rate than the system for your car at the convenience store, static buildup is a concern as the fuel scoots through the hose and nozzle. The condition is made worse in conditions of low humidity.

Back in the 1970s when nobody seemed to either understand or care about fueling safety, a close friend was working as a lineman at an FBO. Of course he didn't hook up the grounding wire from the truck before starting to fill up a Cessna 421. After putting about 80 gallons into the airplane, the static electricity buildup between the airplane and truck discharged, blowing him off the. He landed about 10 feet away, with injuries. Fortunately, the wind was blowing the vapors that were escaping from the filler opening away from the spot where the discharge occurred and there was no ignition.

Nylon

You can aggravate the risk of static discharge by wearing nylon or polyester clothing due to its propensity for static buildup. We have heard

anecdotal evidence of fires caused by pilots using plastic fuel tank dip sticks, wiping them on their nylon flight jackets, then starting to insert them into the tank and having the static discharge, spark and ignite the fumes coming out of the filler opening.

As an aside—because nylon melts and sticks to the skin, exacerbating burns during a fire—don't wear nylon when flying. If you have a nylon flight jacket, we suggest you give it to someone who doesn't fly or simply don't wear it during flight. There is a reason leather flight jackets have remained popular beyond their good looks.

When fueling directly from fuel containers, plastic or metal, it's a good idea to keep the spout in contact with the fuel filler opening. Airplanes have safely been fueled from portable fuel containers for over 100 years, so it puzzles us when airport operators get worked up about them. The relatively small, five-gallon container doesn't hold enough fuel to create a high risk of static buildup while it's flowing, but it doesn't hurt to be careful.

If something goes wrong and you have a spill resulting in a puddle of fuel, don't start the airplane. It's an invitation to a Darwin Award. Follow the contact instructions that

should be on the sign giving instructions for fueling and get help to clean up your mess.

Otherwise, once you've got the fuel level desired in the tanks, confirm you've secured the caps, stow the fuel hose and nozzle (so water won't get in it) and grounding wire, gasp at the charge on the credit card receipt and press on.

Oh, and please, don't blow gravel all over the airplane behind you when you start up.

Reprinted with permission from AVweb. Original story appeared:

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www.avweb.com

QUIZ

1. Upon encountering severe turbulence, which flight condition should the pilot attempt to maintain?
 - A) Constant Altitude and airspeed
 - B) Constant angle of attack
 - C) Level flight attitude

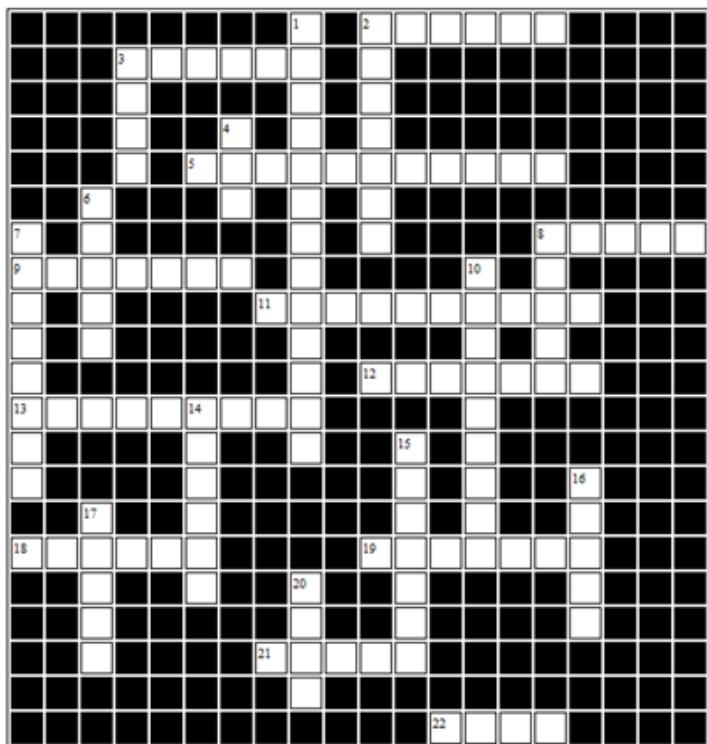
2. The wind at 5,000 feet agl is southwesterly while the surface wind is southerly. This difference in direction is primarily caused by
 - A) Stronger pressure gradient at higher altitudes
 - B) Friction between the wind and the surface
 - C) Stronger Coriolis force at the surface

3. What aircraft inspections are required for rental aircraft that are also used for flight instruction?
 - A) Annual condition and 100 hour inspections
 - B) Bi-annual condition and 100 hour inspections
 - C) Annual condition and 50 hour inspections

4. The normal radius of the outer area of class C airspace is?
 - A) 5 NM
 - B) 15 NM
 - C) 20 NM

5. If an altimeter setting is not available before flight, to which altitude should the pilot adjust the altimeter?
 - A) The elevation of the nearest airport corrected to mean seal level
 - B) The elevation of the departure area
 - C) Pressure altitude corrected for non-standard temperature

(Answers on the back page)

**PHOTO SHOOT**

Storm over Virginia: An anvil cloud -- so named due to its distinctive shape -- appears in the sky over Virginia in September 2013. The photo was taken from 29,000 feet (in an Airbus)

-Barry Moore

Got a photo to share? —send it to the editors

CROSS WORD**Across**

2. weight on the end of an arm
3. turning force
5. piston squeeze
8. separation of airflow
9. beams from a vor
11. how fast is my engine spinning
12. creating low pressure
13. increasing temperature with altitude
18. too fast when in this arc
19. ultimate right of way
21. helps go slow
22. slows me down

Down

1. our engine type
2. feeding the plugs
3. actual altitude above msl
4. low clouds
6. elongated high
7. the edge where upper and lower rejoin
8. shift in the wind
10. this chart covers 6 to 8 degrees
14. broadcasting a code
15. the highest clouds
16. something we all need in the air
17. getting higher
20. standard time

Find answers to this edition's cross word puzzle posted on the club's notice board. Submitted by Barry Moore.
Got an idea for a puzzle? —send it to the editors

ALT SQUAWK

The following are some fictional? Squawks that are remembered for their entertaining value

P= The problem logged by the pilot.

S= The solution and action taken by the engineers.

P: Left inside main tire almost needs replacement.

S: Almost replaced left inside main tire.

P: Test flight OK, except autoland very rough.
S: Autoland not installed on this aircraft.

P: Something loose in cockpit.

S: Something tightened in cockpit.

P: Dead bugs on windshield.

S: Live bugs on back-order.

P: Autopilot in altitude-hold mode produces a 200 fpm descent.

S: Cannot reproduce problem on ground.

P: Evidence of leak on right main landing gear.
S: Evidence removed.

P: DME volume unbelievably loud.

S: DME volume set to more believable level.

P: Friction locks cause throttle levers to stick.
S: That's what they're there for.

P: IFF inoperative.

S: IFF always inoperative in OFF mode.

P: Suspected crack in windshield.

S: Suspect you're right.

P: Number 3 engine missing.

S: Engine found under right wing after brief search.

P: Aircraft handles funny.

S: Aircraft warned to straighten up, fly right, and be serious.

P: Target radar hums.

S: Reprogrammed target radar with words.

P: Mouse in cockpit.

S: Cat installed.



Brightline Flight Bag B10-01

The outside dimensions of the B10 are 13.5" tall x 14" wide (including the additional width of the two external pockets) x 10" deep (including the pockets on the front cover) on the outside.

Seller: Wings of Carolina

Price: \$96.00



Brightline Flight Bag B6-01

The B6 outside dimension is 13.5" x 10.5" x 5". (Remember, it is a soft bag so it can expand slightly in every direction.)

Seller: Wings of Carolina

Price: \$85



New Headsets — Victor I

A well made, reliable headset at a great price.

Seller: Wings of Carolina

Price: \$115

Charts, Sectionals & Pilot supplies

The charts and sectionals are available to all members in flight planning area for ~\$7 each, all items can be purchased electronically!

Seller: Wings of Carolina

Clothing

Wings still have a bunch of polo shirts and t-shirts. Make enquiries if you are interested

Seller: Wings of Carolina

iPad 2 with built in GPS

(and Verizon cellular data), 64GB, Zagg anti-glare shield, smart cover, Taurus 360 rotating leather case, charger. Like new.

Seller: Stan Munsat

Price: \$380

[\(919\) 942-7509](tel:(919)942-7509) munsat@live.unc.edu

To advertise in the newsletter or to submit an item for sale email us at:
Barry.i.moore@gmail.com
aliceannreu@gmail.com

Member Meetings

Membership meetings (Pizza Nights) are held on the 2nd Wednesday of every “even” month. Meetings begin at 6:30 PM and include free pizza, a business meeting, and a program of interest to pilots. These meetings are open to everyone.

Board meetings Second Tuesday of each month from 6:30-9 PM. All members are welcome.

Second Saturday Cookouts occur at the hangar on the second Saturday of each month, 11:30 am-2:00 pm.

If you know someone who may be interested in joining the club, please bring them along with you! It's a great opportunity for them to meet some of the members & learn more about the club.

Ground School schedule

2014 Winter/Spring Private Pilot Ground School

January 8 through April 16 (Wednesdays 7-10pm)

2014 Winter/Spring Instrument Ground School

January 27 through April 7 (Mondays 7-10pm)

2014 Summer Private Pilot Ground School

May 19 through July 14 (Mondays and Thursdays 7-10pm)

2014 Fall Private Pilot Ground School

September 3 through December 17 (Wednesdays 7-10pm)

2014 Fall Commercial Pilot Ground School

September 15 through November 17 (Mondays 7-10pm)

Back Page News

Cabinets

Many, many thanks to our members Jonathan Sledge and Junio Cesar Frietas for their efforts and expert craftsmanship in designing and constructing the beautiful granite-topped cabinet in the classroom. A wonderful, and much needed, addition. Thank you!!!

Recycle

When you are done with this newsletter don't throw it in the trash! Leave it in your place of work, your gym, your school, your church—where ever a potential new aviator may find it!

2014 Instrument class

The instrument ground school starts in just a few days (27 Jan 2014). Just show up at the club.

Board Meeting

The next Board meeting

Next Board meeting will be 11 Feb 2014

Editors

Submit any story or article to the editors at:

Barry.i.moore@gmail.com

aliceannreu@gmail.com

Page 14 Quiz Answers:

I: C, 2: B, 3:A, 4:A, 5:B

WINGS OF CAROLINA
FLYING CLUB



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[Http://www.wingsofcarolina.org](http://www.wingsofcarolina.org)

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