Club Trip: Ocracoke Island
-by Patrick Lofvenholm

It had been 3 years since the last time I had heard the callsign and runway called on the radio, but on June 4th at a little before 10 AM, Mooney 5760R called for departure on Runway 3 at Raleigh Executive Jetport. David Greenfield was at the controls. I was sitting next to him and my wife Vanessa was sitting in the back. This radio call began a great day trip to the island of Ocracoke.

As an old member that has been gone for a few years, it was great to see how well David had planned this trip. We arrived at 9AM for the pilot briefing, and the 172s and Warriors departed while the Mooneys could leave a little later. Unfortunately, one of the Warriors dropped out of the trip due to an airspeed indicator malfunction. Hopefully it will join us on our next trip.

During our flight, we saw Johnston County Airport (JNX), Kinston Regional (ISO), Seymour Johnson (GSB) and Goldsboro Wayne (GWW) among others. We saw fires burning near Kinston, boats crossing the sound on the way out to Ocracoke and heard the other flying club airplanes getting flight following and changing frequencies. The restricted area, R-5306A, was cold so we tried our best to get a direct routing. We initially were given a fix of PUNGO before heading to Ocracoke (W95). We ended up getting direct W95 once we were around Washington (OCW) and our flight over the sound began. With all the haze over the sound, we couldn’t quite make out the Outer Banks Islands so the water just seemed to go to the horizon.

The entire ride was smooth, and we had not found a single ripple in the sky before we began our descent into Ocracoke. We heard other traffic heading into W95 and began a vigilant watch. David and I spotted a Piper Warrior crossing the Ocracoke

The Wings of Carolina Flying Club--50 Years of Flying
-by Barbara Eldredge, John Hunter and Paul Wilder


Edited by Barbara Eldredge

An earlier, more comprehensive history of the Club written by John Hunter has been edited for space considerations, and is presented here. Information about more recent history will appear in the next newsletter. Clearly no brief article can do justice to 50 years of history. The editor would love to hear of favorite memories from members about the Club’s past which can be published in future editions of the newsletter.

The Wings of Carolina Flying Club celebrated its 50th anniversary in 2011. The Wings of Carolina Flying Club currently has over 300 members and is one of the largest and oldest flying clubs in the nation. Our membership includes professional pilots, zero hour students, and everything in between. We have had members from age 15 to over 80, from all walks of life, and from all

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Are you impressed with the culture of safety at our flying club? Do you believe safety must be given priority consideration in all aspects of flying? Consider joining the Safety Committee and helping to keep safety an integral part of our operations.

I joined the club in early 1996 when we were known as the Chapel Hill Flying Club and operated out of Horace Williams Airport under the benevolent gaze of the University of North Carolina. I had just moved to Chapel Hill from the New York City area where I had lived, worked and flown for some 35 years.

Why did I join the Club? I investigated renting from an FBO (now out of business) at RDU and made some flights in their Piper Lance. But I chose our Club not only because I liked the Mooneys, but primarily because I was impressed with the safety culture.

When I first went to the FBO I was given a check out that lasted all of one hour. That one flight allowed me to fly their aircraft day or night, VFR or IFR, including a high performance and complex single.

By contrast, the club (actually George Scheer) explained to me that the Club’s indoctrination process was somewhat more thorough. We then spent hours in day flights, night flights and time under the hood. I was subjected to three written exams on the club SOPs and the operations of 2 different Mooneys. I was impressed.

I have been involved in the aviation insurance business for over 50 years. In that time I have witnessed some extremely unusual and creative ways for pilots to damage an airplane, or worse. I can now say with certainty that there are two laws which will never be repealed: the Law of Gravity and Murphy’s Law. Those of you who studied physics could add a few other laws: “objects in motion tend to remain in motion,” or “no two objects can occupy the same space at the same time,” followed by the inevitable “bodies at rest tend to remain at rest.”

All of which means that aviation involves risks. We all know and accept that. Our job as pilots is to successfully manage those risks. We become our own risk managers whenever we board an airplane. We will have much more to say about this process as time progresses.

There are many—a dozen or more—magazines out there that preach safety. One is even aptly titled “Aviation Safety.” It is not our intent to merely restate or rehash these articles, good as they may be. Rather, it is our intent to confine our energies to those conditions, problems, situations that confront our members while flying club airplanes.

Having said that, club safety is not necessarily confined to flying. We do have a building which is considered a “place of public assembly,” and conduct many activities using that building and adjacent property. More about that later.

The Safety Committee is actively seeking members and the ideas of the club membership as a whole. Meetings are held periodically, as situations require. Our emphasis is not on numbers of meetings or attendance per se, but on the development and implementation of ideas, programs (including Pizza Night programs) and safety awareness in general. Membership is an excellent way to get involved in the operation of the club and to contribute to the well-being of your fellow members.

Please give this serious thought. If you wish to join and participate, please email me (rkenney@suttonjames.com) or call me at 919-545-3040.

Dick Kenney is Safety Officer at the Wings of Carolina Flying Club.
Note from the Editor

I am quite excited to have been invited to serve the Wings of Carolina Flying Club as Editor of WoC Flying News. Since I do not anticipate including a recurring editor’s letter as part of the publication, I thought I would pen a few paragraphs introducing myself and inviting member feedback and contributions.

I joined the club a couple years ago because I have wanted to learn to fly since I was 14 years old. I called around the Triangle area to different flight schools, but one conversation with John Hunter and one visit to the Club and I knew my search for a flying home was over. I never even visited the other outfits.

Although I started with John’s outstanding ground school, I viewed (and continue to view) Wings of Carolina as a 360 degree learning environment. In contrast to the formulaic programs that some of the other schools described to me (one sent me a schematic of the step-by-step lesson plans!) the Club presented an environment where the learning would occur in a much more organic and responsive fashion through a variety of lessons, events, trips, lectures, volunteer activities, pizza nights, meet-and-greets, and informal, impromptu hanger talks. I cerebrally understood some of the advantages membership represented: being an owner rather than a renter; the benefit of helping maintain the airplanes during maintenance night (which I did for much of 2010) and the importance of my rapport with the excellent instructors. But eventually, I began to realize that these benefits and attributes largely resulted from a strong sense of community and a resulting culture within the club that emphasized the ongoing development of its individual members. The Club community provides a place where our aeronautical and aviatic passions can flourish in multiple contexts: technical skill development, social interaction, and community involvement. It is my hope that Flying News will be one venue for our shared experiences, thereby strengthening and promulgating our common causes, friendships and culture.

Mission of the newsletter

I see four main objectives for WoC Flying News.

Creating a sense of community. In addition to making new people feel welcome, Flying News should remind existing members how we benefit from belonging to the organization and encourage us to remain involved. A common theme I hear from members is that the Club is not just a place to fly. A key focus for Flying News under my tenure will be emphasis on the member-orientation of the Club and a focus on the shared experiences that define who we are as a community.

Recruiting and retaining members. Skimming through Flying News should give prospective members a sense of who we are, highlighted through photographs and articles on Club activities, articles promoting the benefits of belonging, and information on how to participate. Mostly, they should get a sense of how much fun we have!

Educating about issues. Flying News should arm members with information that empowers them to make thoughtful choices. While I do not intend any attempt to replicate the myriad general aviation training or technical journals already in existence, the newsletter can thoughtfully communicate in depth on Club- and Carolina-specific topics meaningful to its defined audience.

Activating readers. Flying News should present an array of activities in which members are called to participate: volunteer; join a trip; attend a lecture; vote for the board; register for ground school, or share a proposed activity of your own design!

In the spirit of activating readers, I am issuing my own “call to action.” Among our 300+ members must be a number that enjoy writing.
President’s Message

I am writing this article on a bright and sunny day wishing I was out flying. Every time the skies are clear and sunny, I think about flying. Our club has truly changed my life, and I hope it has changed yours as well.

Before I joined the club, spending the day at Ocracoke or Hatteras was out of the question. Why would I want to drive 4 or 5 hours just to sit on the beach for an hour or so and then have to turn around and drive all the way home? But thanks to the club and the ability to fly an airplane, I can depart TTA at 8:00 in the morning and be sitting on the beach by 9:30 pressing my feet into the warm North Carolina sand. Aviation has opened up a whole new world for me and I am sure it has done the same for you.

But it is not just the ability to fly airplanes that makes what we have so special; it’s the club and our members. Where else can you find a group of such amazing people? People like John Hunter and George Scheer who have been dedicated club members for roughly 30 years. Members like Hunter Moore and Ron Bickers who spend every (and I mean every) Wednesday evening working on our fleet to make sure the planes are ready to fly in the morning. All of our club instructors who are not just instructors, but are fellow club members and more importantly our friends. Or club members Keith Silva and Kay Maltbie who keep all of our thousands of documents and pilots’ records organized. These are just a few of our 300 club members who contribute to the success of our group and make our club so special.

Most of you know by now that I am not running for reelection. After serving two years as President and prior to that, 2 years as Member at Large, I feel it is time for the club to have new leadership. I also am ready for a little “time off.” I served on the Board not for the title, but because I am committed to the success of the club. My commitment will not change or go away once I step down. I am still planning on being an active member of our club. Not being President will allow me to participate in other ways. Like putting on an apron and helping Bill Sawyer flip burgers. Or wearing my grungy clothes to a 2nd Saturday cookout so I can wash and wax planes with Barbara Eldridge and her team. Maybe even test out my mechanic abilities on a maintenance night? There is so much that I and every member of our club can contribute.

The sun is still shining and the winds are calm. I just checked the schedule and one of our club 172s is waiting for me. I think I will go down to the club, and fly for bit. Maybe head East and see where the plane and life will take me. One thing is for sure. The club and my 300 friends will be waiting for me when I return.

Blue skies and a tailwind,

David Greenfield
History--Continued from page 1

over the world. Today’s Club boasts twelve aircraft, a Flight Center, maintenance hangar, in-house maintenance, online scheduling, on-line billing, a flight simulator, a high quality website, Second Saturday cookouts, bimonthly safety seminars and an outstanding cadre of flight instructors. Every aspect of today’s Club owes something to the members who came before and contributed their know-how, effort and commitment to the Club.

The Club’s goal has always been to provide affordable flight opportunities in a safe operating environment. Historically, the Club has grown and prospered in good economic times, and shrunk and struggled during economic downturns. Several times in its five decades it has been on the brink of collapse in difficult economic times, and each time dedicated members have stepped forward to do what it takes to make sure the Club survives. In between times, many, many members have contributed hours of time and professional expertise to create the Club we have today.

From 1961-2001 the Club operated out of Horace Williams Airport in Chapel Hill, NC as the Chapel Hill Flying Club. In 1961, five people affiliated with the University of North Carolina at Chapel Hill, which owned the airport, contributed $50 each as a down payment on the Club’s first airplane, a Taylorcraft. The airport was opened in 1933, and in 1961 still had its original three intersecting grass strips. The Taylorcraft was followed by an Aeronca Chief, then a Champ. It would not be until the 70’s that the Club acquired its first four-place airplane, and the airport would pave one of its grass strips.

In those early days, Professor Don Johnson was the principal flight instructor, squeezing lessons in around his full time job at the University. Enthusiasm was abundant with many people wanting to learn to fly with the Club. The Club lobbied against the University of North Carolina’s initial requirement that all instruction be restricted to UNC affiliated people, and was finally allowed to open enrollment to any interested pilot or student pilot.

The original generation of Club founders passed the torch to new leadership as membership expanded in the early 1970’s. Terry Tickle became the Club’s first dedicated flight instructor and the club added a Grumman Cheetah, a leased Cherokee 140, and a leased Cessna 172 to its fleet.

By 1974, with the economy slowing and membership declining to 35 members, Terry Tickle moved on and the decision was made to hire a new

Club Trip--Continued from page 1

Inlet in the vicinity of the airport. But with the approach relatively clear, I was busy taking pictures of the beautiful islands as David prepared for landing. We lined up on final after some more great scenic photography and made a perfect landing on the 3,000 ft runway (okay, 2,999 ft according to Graham), with an easy taxi to a spot held for us by Eric. We saw the other flying club airplanes and a few friends of the club that had also flown in. As we were escorted by electric golf car to Howard’s Bar and Grill, we got to see how laid back the island lifestyle is. We had a great lunch at Howard’s, having casual conversation with our fellow aviation enthusiasts. Seafood was all around the table when we were served; it seems a lot of the club enjoys seafood when on an island.

After lunch, we strolled down the road towards the marina with a quick stop in the convenience store for sunscreen and water. When we got to the marina, the boat was ready for us and off we went for our tour of the sound side of the island. The crew gave us an excellent tour of the area for 2 hours. We saw dolphins, the abandoned town on Portsmouth Island, bird sanctuaries and an island literally overrun with birds. The dolphins were just an added bonus on an already amazing boat tour.

When we got back to land, we walked back to the airport and took one last photo of the group. Pilots pre-flighted and soon engines were roaring to life. Mag checks complete, 5760R departed runway 24 for our quick flight back to Sanford. On our departure, I grabbed a few great pictures of the area and helped David handle some of the flying responsibilities. It’s always nice to have two sets of eyes looking for traffic and listening to the radio.

When we landed at Raleigh Exec, it was a great finish to a wonderful trip. If the execution of the trip was any indication of the planning, David did a great amount of work that made the trip worth every penny spent. My wife and I had huge smiles on our faces when we left the airport that day, and it would be safe to say there were at least a few more people that had the same reaction. Having been welcomed back to the club, I can definitely say I enjoy the camaraderie and the atmosphere the club creates.

Fly Safe
instructor who would also double as an A&P mechanic. Chuck Williams appeared from Chicago with his tools and a copy of the job advertisement in his hand. Long-time member John Hunter joined soon thereafter and served as president beginning in 1976. At that time the club fleet consisted of two Cessna 150s owned by the club and the leased Cherokee 140 and a Cessna 172.

The Club prospered during the late 1970s. Forest Mixon succeeded John Hunter as president and presided over the club during a period of record growth. In 1979, membership rose to 250 and the training fleet of five Cessna 150s averaged over 400 flight hours per month. The rest of the fleet included five four-place airplanes: two Cessna 172s, two Piper Cherokees, and a Cessna 182. Due to fuel cost increases, rates were raised to $15 an hour for the 152’s, $20 an hour for the Cherokees, and $22 an hour for the 172s. Instructors were paid $10 an hour.

High interest rates and the economic downturn and of 1980 were nearly fatal to the Club. Membership roles dropped and flight hours nearly reached zero. Aircraft leases were terminated and owned aircraft couldn’t be sold quickly enough as the value of the planes fell between when the for-sale ad was submitted and when it appeared in print. By January 1981, only 30 members remained in the club, which still owned four airplanes. Due to protracted inclement weather and lack of demand, a single revenue hour was flown during that month. With a negative net worth and nothing in the bank, the club seemed to be at rock bottom. In an effort to salvage things, two members of the Club (later joined by a series of other members) agreed to purchase the fleet and lease it back on a basis that would restore the Club to a positive cash flow. Consequently, the club was able to survive while anxiously waiting for the economy to improve and for interest in flying to turn back into actual flying hours later in the decade. As its fortunes improved, the Club began to repurchase its fleet from the lessors in the mid-1980s.

The Club attracted many long time members in the mid-1980s who contributed in various leadership roles for the next decade. The Club welcomed former United captain Lee Leewood as club manager and flight instructor. John Hunter served as chief flight instructor for seven years during this period. Most of the Club’s Standard Operating Practices were codified in the mid-1980s, and although they have been revised slightly over the years to reflect changing needs, the majority of those SOPs are still in effect today.

The mid-to-late 90s was an active and productive period as the number of members was approaching 300, and the Club routinely attracted more over a hundred new members a year. The Club had an outstanding cadre of full-time instructors, supplemented by highly-experienced part-time instructors. It regularly filled all of its four place planes on the annual Club pilgrimage to Oshkosh for the EAA convention. Bimonthly membership meetings (pizza nights) were held at a variety of locations over the years, including several different pizza places, and finally a local Church.

The Club had been operating out of a small shack with room for a paper schedule, telephone, member files, charts, and not much else. All maintenance was done outdoors. Volunteers expanded the shack, making room for a weather station and a simulator.

During this time, the fleet peaked at 13 airplanes: five 152s, five Warriors, and three Mooney 201s. Two Twin Comanches were also owned by Club members and available for instruction and rental. The Club also invested in the first GPS’s for the four seat aircraft in 2000.

In 2000, the University of North Carolina, which had plans to close the airport and build a north campus on the property, informed the Wings of Carolina Flying Club that they would not be renewing the Club’s lease on the airport after 2001.
Meet Member X
Profiles of WoC Members

For William (“Bill”) Sawyer, the strong sense of community at the Wings of Carolina Flying Club has played a key role in shaping him as a skilled pilot and helping him forge lasting friendships. A long time resident of NC, Bill has spent most of his career in the pharmaceutical industry, first on the faculty of UNC School of Pharmacy, then starting in 1998 with contract research organization Quintiles. He and his wife, Lynda, have lived in Hillsborough for the past 26 years and raised four children; their son, Spencer, received some flight instruction at the Club and is now flying gliders while studying at veterinary school in Germany.

Bill first became excited about flying in the early 70s when he flew as a UNC faculty passenger on UNC Medical Air Operations airplanes. “There were several CFIs serving as pilots in the ‘Medical School Air Force’ as we called it. So, there were occasions when I could sit in the right-hand seat and get mini flight lessons.” However, a busy schedule and the apparent expense of training kept Bill from actively pursuing his private certificate, until in 1995 the Club found him and ushered him in. “There were a couple Chapel Hill Flying Club members that were faculty colleagues of mine,” he says. “I had no idea they were active in flying, but they had overheard me talking about wanting to learn and invited me one day to come to the club hanger to take a look.” Bill joined that very afternoon, and completed his private and instrument training through the Club.

Bill flies primarily for enjoyment, but has flown for business in the past as well. “When I worked for Quintiles, I would fly to Indianapolis or to Atlanta to meet with our corporate clients. Quintiles at that time was one of the few organizations that not only allowed employees to fly for business, but actually reimbursed the expenses.” But from the outset, Bill viewed membership in Wings of Carolina as more than just a place to fly. “Back when the Club was in Chapel Hill, people used to take their lunch breaks at the hanger and just ‘hang out,’” he remembers. This remains Bill’s favorite aspect of Club membership: the social connections. “It’s a great group of people. I just come in contact with a great group of different people. Really, I don’t know anyone at the Club I don’t like. It’s why I enjoy cooking so much.”

Bill started cooking for the Club in the late 90s as part of a program he and fellow member Steve Bockish developed—a Club work day with food to compensate the volunteers. The idea morphed over the years into the Club’s regular Second Saturday monthly social gathering. While Bill’s past Club volunteer service includes stints as President and Vice President, today he continues to serve up culinary magic to Club members each month. In the process, he enjoys facilitating the social interactions he values; new friendships forged, experiences shared, and perspectives discussed. “One key difference between Wings of Carolina and other flying outfits is that our culture rises above mere flight training,” he observes. “We can serve a diversity of needs—certainly including flight training, but we also have a culture that encourages learning and interaction far beyond that.”

Bill’s future flying plans include earning his CFI rating “because I love to teach,” says the long-time professor. Skilled instruction would not be new to Bill; for years, he has served as a scuba instructor at Down Under Surf and Scuba in Cary, NC. “Underwater, you see things other people don’t see, and in a way that others don’t get to experience,” he relates. “I used to mountain climb. Sitting on top of Mount Whitney, you get a different perspective on the world, and on life. It’s the same with flying. You grow as a person by getting a different perspective.”
John’s Corner

Accidents and Fuel Reserve Planning

As most Club members know, in July we experienced a rare accident in the Club. By NTSB definitions, this is only our sixth accident in 50 years and over 200,000 hours of flying, and while our accident rate is less than half of the national general aviation average, every blemish on our record represents a challenge to redouble our efforts for safe flying.

The accident in July was in a Club Warrior and occurred near Richmond, Virginia. The pilot was alone in the airplane and fortunately walked away and was not seriously hurt. But the embarrassing part (for both the pilot and the Club) was that this was a classic fuel exhaustion accident. It was the very scenario that we have specifically addressed in our published Standard Operating Procedures, and in our training and checkouts for decades. The pilot tried to stretch what would have had to have been almost 5 hours of night flying in a Warrior. He didn’t plan it that way, but that’s how it worked out. His fuel ran out after 4 hours and 43 minutes.

When these things occur, we all ask “How could this have possibly have happened? We all know better than this!” Which is what the pilot also said. After his period of denial had passed, this highly intelligent and competent IFR rated pilot confided to me that, among other complex feelings, he was deeply embarrassed to have fallen into this trap.

And therein lies the first lesson that we all must keep in mind. We are all human, and we too could fall prey to the factors that lead to accidents no matter how smart we are and no matter how many times we tell ourselves “I’d never do that!” So you think – but so have many others. (What is that 2,000 year old proverb... Pride goeth before a fall?)

There are several kinds of accidents. There are accidents that are caused by pure lack of “stick and rudder” skills. These tend to be the less serious “incidents.” But the more serious accidents occur when other factors are also involved, such as inattention, complacency, inexperience, bad weather, poor judgment, and other human factors such as fatigue, anxiety, personal pressures, and denial. (Go back and reread the FAA “Hazardous Attitudes” if you haven’t done so recently.) These more serious accidents can’t be mitigated by practicing airwork, instrument approaches, or takeoffs and landings. The causes of the more serious accidents are human foibles to which we all are susceptible.

The good news, of course, is that we can learn how to lessen the chances that we will have an accident. Those of you who have passed through ground school with me know that I spend considerable time going over how we pilots can develop a safety consciousness and practically apply known principles to our flying decision making to make us safer. It’s not only facts and tricks of the trade, but it is also an attitude we can and must cultivate. Success is possible, and the Club’s safety record proves that it can be done.

The following is the essential lecture on Fuel Reserve Planning which for 30 years has been given in the WCFC Private Ground School and IFR Ground School. It is meant to expand on WCFC SOP No. IV. 3. in which we require at least one-hour (both advance-planned and in-the-tanks upon landing) fuel reserve.

How Not to Run Out of Fuel

The tragedy is that, on average, six general aviation aircraft needlessly run out of fuel every month in this country. The pilots are often very smart people who have been well trained. They know how to plan for fuel requirements, and they carry a fuel reserve. Yet they still run out. What’s going on here?

The reasons they run out of fuel are two. The basic reason is that they do not correctly conceptualize what “reserve fuel” is, and the secondary reason is poor in-flight decision making.

Your “Fuel Reserve” – Not what you think!

When most pilots are asked to describe a fuel reserve, they respond that it is “extra” fuel beyond what is reasonably needed for the flight, loaded as a safety precaution should any unexpected delays
occur. This incorrect conceptualization is what leads to fuel exhaustion! We have long preached in this club that a planned fuel reserve should NEVER be used. If a WCFC pilot is approaching use of his or her fuel reserve, landing should have occurred before that time. Contemplating flying into one’s fuel reserve is like choosing to put one’s self into an emergency situation. NEVER fly into your fuel reserve!

The reason that a “fuel reserve” should never be flown into is that, in many cases, it does not actually exist. For many reasons, that “reserve” is truly not in the tanks even though we have planned for it to be there. We have fooled ourselves into thinking that we have “extra” fuel, when in fact we don’t. And so how is it that we don’t have the fuel we think we have? Here are some top reasons:

1. It wasn’t there to begin with. Many pilots assume that if the fuel is within a half inch or so of the bottom of the filler neck, the tank is full. This is not true. Depending on the airplane type and tank geometry, a half inch could mean one or two more gallons could be squeezed into each tank. Also, depending on the attitude of the airplane on the ramp, (nose strut flat or over inflated or one wing low) there could be air pockets in the tanks resulting in missing gallons even with the fuel lapping at the cap. Starting off with perhaps as much as 2 to 4 gallons missing from your assumed fuel load may shorten that hour’s reserve by up to a half hour! But you thought you had full tanks...

2. You burned more than you planned. Bear in mind that the fuel burn data given in the POH is derived from specially instrumented and calibrated test aircraft at the factory. They were leaned precisely to exacting standards by use of EGTs and calibrated fuel flow meters. Many general aviation aircraft do not have such instrumentation and so leaning is done by “feel” and “sound.” Consequently, the fuel burn on your flight may be significantly different than what the performance chart says. In your trusty Warrior or Skyhawk you might be counting on burning 8.5 gph at 65% power, but you may be in fact burning 10 gph or more. This would be for two reasons. First, with general aviation tachometers being notoriously inaccurate, your rpm may be greater than indicated and you may be developing more power (a 150 rpm error may yield 75% power instead of 65%). Secondly, your leaning technique is most likely much less aggressive than the factory test pilot. Additionally, even if you have a modern fuel flow gauge installed, it is not calibrated for accuracy to the same standards of the factory test airplane, and it can drift off over time especially if wear occurs in the sending unit. (And when it drifts off, it shows less burn.) Bottom line? Don’t believe that factory fuel burn specs apply to your leaning technique on your flight. If you do, you may run out of fuel!

2a. You burned more than you planned... version 2. Like it or not, your trusty engine is not brand new and precisely calibrated. It’s safe and reliable, but it is not calibrated like that factory test article. For example, it is extremely common to have differential turbulent airflow into each cylinder based on the idiosyncrasies of the intake tubing and cylinder castings. This means that you literally can’t lean all cylinders equally. When one is lean and near dropping off, the others are richer. (This is why the engine runs rough when leaning – one cylinder has dropped off.) The result is that it is likely there is no way you can get the leaning results they did at the factory. Oh, here’s another good one: if you accidentally did not completely lock the primer (and for many Warrior pilots this is common) extra fuel will be pulled through the primer system for your whole flight thereby significantly increasing your planned burn rate.

2b. You burned more than you planned... version 3. We may set ourselves up for trouble in the initial planning if we assume that the performance charts in the POH represent the not-brand-new “real life” airplane we are flying. Are those cruise speeds vs power setting charts realistic for the old bird? Did I account for a slower cruise speed because of the rough paint; the leaky door seal; slight mis-rigging; or the lack of wheel pants (which are optional equipment)? If we fuel plan based on the POH speed numbers, we may be setting ourselves up for a slower ground speed which turns into higher fuel burn over the planned flight. Use fuel burn and speed performance numbers based on actual or typical experience with the type of airplane in average condition – not the brand new bird the POH assumes.

To sum up, the reasons that there is no reserve in your tanks when you naively thought you had one are: (1) it was not there to begin with, and
(2) you burned more than you thought you did on your flight. So, based on the worst case indication (time airborne, gauge readings, or fuel flow data), NEVER fly into your reserve!

**In-Flight Decision Making – Wishful Thinking Takes Over**

We’re all human. We all are prone to various forms of wishful thinking. The real killer with regard to in-flight fuel usage is to believe that we have a nice reserve and consequently to fly along with false confidence and rationalize away both contrary indications of ground speed or fuel usage and therefor the need to take inconvenient action. When does it dawn on us that we’re potentially in trouble and need to take drastic action? For many hapless pilots, this realization happens long after they have thoroughly painted themselves into a corner.

One of the disciplines of flying is to keep track of the progress of the flight in terms of expected vs actual ground speed and fuel consumption. Many of us are too sloppy about these tasks. Checking fuel consumption rates may present some challenges, since small airplane fuel gauges are notoriously inaccurate, but they are required to be accurate at the bottom. (When they say “E” they mean “E”!!) Any indication of low fuel (below 1/4 tanks) should immediately produce positive action to land. Now!

Ground speed is critical because it translates directly into time and if your flight takes more time than planned, watch out! Fuel can become critical sooner than you suspect! The real problem is not noticing the lack of flight progress soon enough. If you note your slow progress early in the flight, there is more time to plan for a fuel stop, to assess weather more carefully, to plan for more contingencies, and most importantly to prepare yourself psychologically or emotionally to make that “inconvenient” extra stop.

Denial is a powerful human trait, and a tragedy occurs when the pilot keeps reassuring himself that all will work out OK. (“It always has before, and surely it will this time.”) The “accident chain” has been subtly linked up until the only choice is to desperately hope that there is enough fuel to make the last 10 miles since all other “outs” are now well behind. In so many cases, there were plenty of possibilities for fuel stops that were passed over, and in hind sight one can only wish that the decision had been made to land and get fuel – or at least land! Things are compounded at night when there may be no fuel service at smaller airports, and so the pressure is to keep going. We even have a record of an inexperienced Club pilot in the 1970s who over-flew several airports in the day time because they did not respond to unicom calls, so he assumed that no one was there. (After running out of fuel and landing in a plowed field, he realized that the various airport employees were probably out pumping fuel rather than sitting at the desk by the unicom radio.)

The bottom line here is that even if there is no one to pump fuel, land anyway and stay on the ground until you get fuel! We know of a local pilot (not a Club member) who landed for fuel in New Jersey one night and found no one there to pump the fuel. He took off to go to a nearby airport and ran out of fuel on the way, killing himself.

In-flight decision making is critical no matter how well you think you have planned for fuel. Things change. Ground speed may be a bit slower than planned, the weather may turn out to be worse than forecast, your destination unexpectedly goes IFR or below minimums, or you have a mechanical or radio problem. The bottom line is to make early, pro-active decisions, and one of the most important is to land and deal with the unexpected on the ground – especially if it involves low fuel. Remember, treat the fuel reserve as if it had evaporated. In many cases that would prove to be the correct concept. It’s not in the tanks as you had thought! The Club demands that a one hour fuel reserve not only be planned for, but must also be in the tanks when landing. If you fail to respect this SOP (Standard Operating Procedure) there will be consequences – either from the Club or to your life. NEVER fly into your fuel reserve!

*John Hunter is Maintenance Director at the Wings of Carolina Flying Club.*

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**John’s Private Pilot Ground School** begins Wednesday, Jan 4, 2012 at 7:00pm. The ground school remains one of the best ways to introduce people to piloting and to the Wings of Carolina Flying Club. Help spread the word!
The club will hold its Annual Membership Meeting, which includes elections for the 2012 Board of Directors, on Thursday, December 15, 2011 at 7:00 pm (pizza is served at 6:30) at the clubhouse at Raleigh Executive Jetport. Current club officers will discuss our club’s financial position along with a 2011 review and thoughts for 2012. We will then hold elections for our club’s officers for 2012.

This newsletter serves as the official notice to the club members of the elections. The leadership and policy decisions of those who sit on the Board of Directors significantly impact how well the Club is able to weather challenges and capitalize on opportunities that present themselves.

For those unable to attend the December 15 meeting, the club will offer an absentee ballot process. This process is permitted by Club Bylaw Article IV Section 21, and is described in club document 3.95 on the club website. It has been reprinted in this newsletter issue after the candidate statements.

To help you get to know those running for the 2012 board, declared candidates have written personal statements about why they are running and what they hope to accomplish if elected. Along with a general description of the duties and responsibilities of each office, these personal statements are printed below.

**WCFC President**

The individual who is elected to the office of Club President will, according to the Club’s Bylaws, “Have the overall responsibility for the proper and efficient operation of the Club.” He or she will be the face and voice of the Club. As of this writing, the following club member is running for Club President for the 2012 board:

**Jan Squillace**

**Background:** Joined WCFC in 2004, taken private and instrument training here at the club. I earned my private certificate in August 2007 and instrument rating June 2011. The instrument rating was worth all the work to earn it.

**Experience:** Key volunteer since 2007 to present for pilot supplies. Board secretary 2010, member-at-large 2011.

My goal as President will be to make the club a welcoming place to fly well-maintained aircraft. We already do a good job of attracting new aircraft. I think we can do an better job of retaining members. It will take the effort of all of us to accomplish this task.

The board represents all the members and needs to know what the members are thinking. Also, the members need to be aware of the challenges the board faces in keeping our fleet and building operating on a sound financial and operational basis. I welcome the opportunity to continue to serve the members and the club. This is a great place to fly and I like to help keep it that way.

**WCFC Vice President**

Aside from filling in for the Club President when necessary, the Club Vice President is primarily responsible for managing the Club’s membership. Specifically, this entails advertising the club and attracting new members through a variety of media, reviewing membership applications, overseeing new member orientation, and maintaining the Club’s membership records. As of this writing, the following club member is running for Vice President for the 2012 board:

**Jim Carlson**

**Background:** 11 years in Club (earned my private and my instrument rating).

**Experience:** Served on the WOC Board 8 years. Prior to board service, oversaw the construction of the hangar in Sanford. I have focused much of my efforts ensuring expenses are kept in check and the club is positioned to weather difficult stretches. Started at the club back in the old shack at Chapel Hill. Helped in the transition from the old shack to the Forestry Hangar at IGX. Once the club was given the boot from IGX, I arranged for, and established the temporary trailer at Sanford. Elected to the first board to take office once the club moved to Sanford. I oversaw the planning and construction for the new hanger. Besides focusing on the facilities, I kept a careful eye on expenses, establishing guidelines for separating dues expense from aircraft expense. I have five kids and want to ensure the club will be in existence with affordable flying when they are old enough to learn to fly. In the meantime I want to make sure the club is a family friendly place that they will want to visit with me.
As a position platform, I want to have the cost of flying be as affordable as possible for every member. I do not think rates should be based on other market rates for renting planes but rather should be established by what it costs us, as club members, to fly. Dues should be minimal and cover no flying related expenses. Flying-related expenses should cover all expenses associated with having and flying planes. This permits the member to modulate his flying expenses better. It also ensures that the expense of a particular fleet segment is born by the members that fly that segment. Lastly, I think that income over expenses from the aircraft should be re-invested in the fleet for fleet enhancements. Such enhancements should be made to all levels of aircraft. We need to establish a plan that ensures our fleet does not just get older, but is scheduled for updates. As flying evolves with newer equipment and methods the fleet should follow. I led the charge to upgrade the mid range GPS’s to the new GNT-650. Equipment upgrades should also be made using the best option, not just the cheapest option. We have a great club and need to ensure its longevity for the cause of general aviation and for the pleasure of our members.

**WCFC Treasurer**

One of the most critical officers on the Board of Directors is the Treasurer. This person is charged with the responsibility of monitoring the financial health and well-being of the Club. The treasurer manages the Club’s cash flow, makes reports to the board on the state of the Club’s finances, and ensures that member accounts are accurate and up-to-date. As of this writing, the only candidate running for Treasurer for the 2012 board is currently-serving Treasurer Graham Mainwaring. He has elected to not provide a statement.

**WCFC Secretary**

The Club Secretary is responsible for creating and managing written records and correspondence for the Club. This includes recording and filing the minutes of all board meetings, publishing a written newsletter, and maintaining the Club’s mailbox. As of this writing, the following club member is running for Secretary for the 2012 board:

**John Gaither**

**Background:** Joined WCFC in 2008; Instrument Rated; Flies at Club: mostly Mooneys but also 172’s and occasionally Warriors.

**Experience:** 2010, 2011 Member at Large

I have been flying for approximately six years. I learned to fly in Kenosha, Wisconsin, and joined WCFC in 2008, when I moved to North Carolina from the Chicago area. I was impressed by the culture of the Club and found both John Hunter’s instrument course and commercial course excellent. I hope that I have contributed in a small way as a director at large for the past two years and would like to continue to contribute in the future as a director and Club Secretary. While we are a Club, we also must maintain our business records in appropriate fashion and I am willing to do that. My wife and flying companion, Chris, and I have two children: son, Jack living in Chicago, and daughter Marisa, also living in Chicago after graduating in May with a degree in Aerospace Engineering from University of Notre Dame.

**WCFC Member-at-Large**

The Wings of Carolina Flying Club By-laws state that “at such times as deemed desirable, other officers may be elected by the Membership at the Annual Membership Meeting in December.” Traditionally, the Club has used this provision in the by-laws to elect three board members-at-large. While the bylaws do not specify the duties of a member-at-large, these members usually oversee special projects at the direction of the President. Further, having three members in addition to the four mandatory officers spreads out the workload of the board and provides a diversity of perspectives and skills, which increases the effectiveness of the board. As of this writing, the following club members are running for member-at-large for the 2012 board:

**Ren Babcock**

I joined Wings of Carolina in February 2011 and have since logged over 115 hours in our aircraft. Currently I am working on the instrument rating with Gene Weaver. I’d like to join the board as a member-at-large so I may support our club in its mission to keep us flying.

In a recent conversation with George, he suggested I consider stepping forward for service on the board. Before deciding to run, I spoke with current VP Jim Carlson to get a clear picture of the
duties and responsibilities of a board member. He mentioned one of the major items on the board’s agenda for 2012 will be the refurbishment and upgrading of the mid-range fleet. This is a challenge I am eager to tackle.

Our aircraft are aging well and remain airworthy thanks to regular use and preventative maintenance, however there are some items to be addressed. Some of our aircraft have torn or missing door seals, window seals, worn bushings and broken or missing interior plastic / sun visors. I’d like to see to it that these items are addressed before major avionics upgrades are budgeted. We are fortunate that moving-map GPS and satellite weather devices have dropped in price to a level where it is no longer premium technology, but something the weekend warrior can afford. I will ensure that any upgrades to the aircraft are made in accordance with a philosophy that maximizes value - durable equipment that enhances the utility and safety of our aircraft with minimal cost and downtime.

A secondary (and important) function of the club is to serve as an ambassador to GA and encourage others to pursue a pilot’s certificate. Recruiting primary students allows us to grow and retain full time instructors who provide invaluable service in the day to day functioning of WOC. In addition to spending time on club PR and recruiting projects, I propose a policy change that will encourage our vast membership to introduce new pilots to the left seat. I’d like to grant each member a once or twice per year exemption to the $20 “one day member” fee so that one may send an interested friend, spouse etc... up with one of our excellent instructors for the same low rate we enjoy. If aircraft availability to other members becomes negatively impacted by this change, it could be restricted to weekdays only.

Wings of Carolina is one of the strongest GA organizations on the east coast. The quality of our membership, fleet, instructors, and the reasonable cost to participate in the club are the primary and significant core values of WOC. As a board member, I will strive to maintain and improve where possible the low hourly cost and availability of club aircraft and instructors. In doing so I will promote volunteer participation, frequent use of the aircraft and a board that is responsive and financially conscious.

Finally, I ask for your vote in the upcoming election!

Chris Berg

I have been a member of the Wings of Carolina since 2006 when I joined as a neophyte student pilot. Since then, I have earned my wings and enjoy flying as a VFR private pilot. It is my hope to begin instrument training next year and further my development as a pilot.

I have been involved in volunteering at the club since the beginning of my membership, and have helped with many plane washes, second Saturdays, Family Fun Days, and School field trips to the club. I was originally elected to the board for the 2009 term, hoping to represent the less experienced pilots among the membership. Since then I have served as both a member at large and as the secretary. I hope to serve as a member at large again next year, and to focus on the continued improvement of the fleet, which was begun in the last year and a half.

In my “real” life, I own a small engineering consulting firm in Durham, and I live in Sanford with my wife and our five children (and one grandchild, and one cat)!

Ian Frid

Dear Members,

You might quite rightly ask yourself, “What can someone who speaks a little strangely, spells a little differently and loves soccer possibly do for me on the club board”?

He has been a club member for just two years, does not have a long background of flying and no laundry list of achievements to speak of. He did act as president of a flying club in the UK, but those craft were made from balsa wood and tissue . . .

So what do I have, and what can I can bring to the board and the club as a whole? In a word, You! I want to represent your views, your needs and your ideas on the board. You see, my day to day job, which has been with IBM/Lenovo for the last 33 years, is one of relationship. I’m a warranty service consultant, which requires me to work with people, communicate with people, listen to people, understand their problems, and fix them. That makes us both happy and it’s a role I enjoy with passion.

Our club is a wonderful club. I joined two years ago having been somewhat disillusioned by other training establishments. I gained experience and confidence here and am now learning Instrument.
It’s become a home, a place to feel welcome and secure. A place to share and partake. A place to ‘put in’ as well as ‘get out’... and with a 4 month old granddaughter down in Florida, you can bet I’m going to be making the most of a more ‘efficient’ means of traveling rather than sitting on I95! But here’s my point; I want to ensure that what I have found in this club is available to all if they want it.

Our board has worked wonders and has been the inspiration and support for me to stand and offer myself as your representative. Sitting in on the meetings, I hear a great deal of experience, wisdom and views. A lot is talked about what worked, and what didn’t work, and I’m a firm believer of learning from mistakes (talk to me about crosswinds some time). What I would like to hear a little more of is what the Members think. What would the Membership think about a decision? What would the Membership think should be done?

That is what I would like to bring. I want to be someone you can talk to, share with and trust... and we can get over the soccer / football thing.... I want to represent your needs on the board. I want to be a Members’ board member.

Thank you for your consideration.

Paul Wilder

Since joining the club in 1999, I have always tried to help out in some way because I strongly believe in the club’s mission statement and implementation thereof.

If my memory is correct I was first on the board in 2004 as member at-large. Since that time, I have formally served as member at-large, vice president and president during various years (some more tumultuous than others where I helped out as pseudo treasurer).

Significant accomplishments that I was primarily responsible for or heavily involved with include:

- Discovery / disclosure of mismanagement of the club’s finances
- Restructuring the club financial position when it was essentially bankrupt
- Establishing the club’s wholesale buyer status with NC (ended what was effectively a double sales tax on fuel, engines, parts, etc. which has saved the club about $10K a year in fuel alone and probably around $14K annually)
- Rewriting operational procedures for flight check-ins, new member, and financial processing
- Buying and selling at least six club aircraft
- Structuring and executing two of the club’s three current leaseback contracts
- Creating clear marketing messages, associated materials (website, logos, brochures, flyers), and events to help promote the club
- Building the paver walk-way out to the tarmac (which may seem small but took >100 hrs)

Going forward, I intend to continue promoting the club through various marketing activities as well as bring to the board a historical voice of things tried (both good and bad) from the club’s past.

Since I believe my both my depth and length of service allow me to bring a valuable perspective to the board, I appreciate your consideration in electing me to the board as member at-large.

Absentee Voting Procedures

The Absentee Voting Procedure is designed to make the club elections accessible to a larger percentage of the membership without unduly diluting the tradition of the annual election pizza night or precluding floor (or late) nominations. The procedure allows eligible members the flexibility to vote early, keeps absentee ballots anonymous, and gives members the ability to change their vote at the membership meeting. Therefore, members who vote early are not precluded from voting for floor nominees or late nominees, and can still experience voting at the election. This procedure is to be finalized and published by the Board of Directors.

The procedure is as follows:

1. The board designates an election coordinator. This can be an existing staff member or a volunteer club member. The coordinator cannot be a candidate for the board.
2. A description of the Absentee Voting Procedure is communicated to the membership well in advance of the election meeting.
In this issue of *Flying News*, John Hunter reminds us of the importance of the discipline of keeping track of flight progress in terms of ground speed and fuel consumption. For those of us without iPads (including most student pilots still in training), a paper VFR navigation log serves as the primary tool for heading calculation, checkpoint tracking and actual vs. expected groundspeed. Most of the VFR nav logs I have seen, however, are single-sided, cramped affairs that are difficult to manage as intended in the cockpit with a small kneeboard.

The Nav log that accompanies this newsletter is designed to take the XC routing and tracking portion of the log—that part, in other words, that you reference and write on while in the cockpit—and expand its size to fill a standard Flyboys kneeboard. Not only is there more room to read and write, but segments can be checked off on the right-hand side to provide a quick visual reference to see what segment on the log is currently being flown.

The log gets folded in half with the dashed line on the inside. It gets clipped into your kneeboard on the inside, right hand page. The front page when the log is closed contains your radio frequencies, clearance deliveries and airport weather info. The nav log can be flipped up without unclipping it to reference information that is generally handy to have, but is less frequently utilized in the cockpit.

If you have any suggestions on ways to improve the Nav Log, please let me know!

Cheers, and good flying,

Andrew Grauer
Editor, *Flying News*
andrew@blackethouse.com
# New Certificates and Ratings through Aug 31, 2011

## Private

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<thead>
<tr>
<th>Month</th>
<th>Name</th>
<th>Instructor</th>
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<tbody>
<tr>
<td>January</td>
<td>CRAIG FOX</td>
<td>(Betsy McCracken)</td>
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<tr>
<td>March</td>
<td>JAMES R. STANLEY</td>
<td>(Margaret Riddle)</td>
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<tr>
<td>May</td>
<td>SUMANTH BHUPALAM</td>
<td>(Gene Weaver)</td>
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<tr>
<td>June</td>
<td>REN BABCOCK</td>
<td>(Gene Weaver)</td>
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<td>June</td>
<td>MARK FAUST</td>
<td>(Gene Weaver)</td>
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<td>June</td>
<td>SUNIL GALI</td>
<td>(Ronney Moss)</td>
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<td>July</td>
<td>STEVEN KITTEL</td>
<td>(Betsy McCracken)</td>
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<tr>
<td>July</td>
<td>ROBERT LARSON</td>
<td>(Betsy McCracken)</td>
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<tr>
<td>August</td>
<td>CHRIS HOPFENSPERGER</td>
<td>(Ronney Moss)</td>
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## Instrument

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<tr>
<td>July</td>
<td>WILLIAM LACKY</td>
<td>(Ronney Moss)</td>
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**Flying News**  
Wings of Carolina Flying Club  
702 Rod Sullivan Road  
Sanford, NC 27330