WINGS OF CAROLINA FLYING CLUB
FLYING NEWS
Fall 2007

Advantages and Traps of On Board Weather Technology

By Roger Koopman

During my career in the Air Force, I have done my fair share of working around the weather. I've flown 20-hour counter-narcotics missions over the Gulf of Mexico with the auto pilot out and dodging thunderstorms using an onboard weather radar, while not talking to anyone because the mission was classified, and we were "EMCON" (no radio transmissions whatsoever, period). I know firsthand that hand-flying a Boeing 707 for 20 hours while dodging thunderstorms and also trying to keep it straight and level so the airborne radar can work is very uncomfortable.

Until relatively recently, however, working around the weather in a general aviation aircraft was a completely different proposition, owing to the lack of real time weather information in the cockpit. It used to be that I'd cancel my flight if I saw there was going to be weather on my route of flight and reschedule for some other day. Over the years, I've lost out on many hours of challenging (and valuable) flying experience simply because I don't like the increased risk of unpredictably violent weather. Yet, I'm keenly aware that if I had had better real time weather "intelligence", I could have flown a large percentage of the flights I cancelled. This realization was reinforced when I checked out in a Club Mooney with George Scheer. George told me about the on-board weather feed and how revolutionary it is to have that kind of weather data available in small airplanes.

On a recent trip, I had the opportunity to see just how valuable having real time weather was in making go/no-go decisions. It was also a good reminder that relying too heavily on technology can lead to trouble. I flew with Robert Naylor in his Garmin G1000 equipped Skylane as his copilot on an Angel Flight mission from RDU to IGX to pick up the sweetest, cutest, and very sick 6-year young Savannah and her mom. Savannah is on her second liver transplant, and on the way to Horace Williams Airport the mother found out that an artery that supplies blood to the liver is clogged. The mission was to transport Savannah and her mom from IGX to Asheville (AVL).

Robert's Skylane is "all glass", and since I've never flown "glass" before, Robert told me he was going to fly the RDU-IGX and IGX-AVL legs so I could navigate and get used to all the buttons and features. What an experience of information overload that was. Regardless, one of the most impressive things was that this Skylane, like our Club's Mooney's, gets a near real-time weather feed.

It is easy to tell where you are in relation to the weather because you can impose the Stormscope info on the weather picture, which itself sits on top of your route maps, etc. All very cool and beautiful. In the top-right hand corner of the MFD you can see how old the current picture is so you can get a feel for how much you want to rely on it. We were flying in the late afternoon and it was a bloody hot day, so there was weather building all over the area. But we had Nexrad with update rates of between 2 and 6 minutes so we felt comfortable relying on the information. We were able to fly a fairly direct route while admiring the giant columns of cumulus miles away from us. I'm always so impressed by this grandeur, while being fully aware of its dangers.

After dropping off our passengers, we were climbing out of Asheville and were really looking forward to all that Nexrad weather info because we knew there was a line of cells slowly approaching Raleigh. However, there were very wide gaps with good safety margins so we felt very comfortable going home. We were looking at the pretty pictures and watching the update rate in the top right hand corner go from 2 minutes to 4, then to 6, then to 12, then to over 20 and then we get just two hyphens, apparently meaning no data, no how.

Hmmm. This was one of those imposed learning moments. Suddenly, I was right back to where I had always been when flying small airplanes. Weather somewhere in front of me and completely blind as to where. This is part of the reason I don't have a ton of IMC hours. I've flown too many hours and I've read too many accident reports about small airplanes getting into very serious trouble when thunderstorms were in the area. Even if they seemed miles away, I simply don't want to risk it. So, at this point I'm thinking about landing. I ask Center how far ahead the weather showed on their system. We still had a good safety margin. To me that meant we could make a safe decision now while not being under stress.

We happened to be right over Lexington and Robert mentioned a restaurant with "the best barbecue in NC." My very next phrase was, "Center, 14V would like to cancel and land at Lexington for weather avoidance."

"Skylane 14V that is approved, squawk VFR, …" etc, etc, etc. We circled to land from 9,500 feet down to pattern altitude. That was all very easy because, again, Robert's airplane flies very nicely *and* we were still in very good VFR conditions.

Around 9 PM, after enjoying the BBQ and the hospitality of the very nice people at Lexington, the temperature had dropped and the weather briefer told me the thunderstorms over Raleigh had dissipated. So we filed, took off, and had an uneventful trip back to Raleigh. After we took off, the Nexrad came back right away. We thought it was rather odd. When we most needed it the thing stopped working, forcing us to land. And now it came back online as if nothing had ever happened.

What did I learn? Many things, as I always do every time I fly. First weather in the cockpit is simply *fantastic!* This gets etched into your brain when you have it and fly through weather with it, and then lose it when you desperately want it. The feeling of abandonment and insecurity is very real; at least it was to me. Second is what is repeated over and over in all the articles we read. That is that systems fail, even in new airplanes and you better be prepared for it because it happens when you least expect it. Furthermore, Murphy makes sure it happens when you are most dependent on that system when it fails.

Having real time weather feeds in the cockpit enables you to do more flying while increasing your safety by huge margins. However Onboard weather systems of any kind do not give the aircraft any ***(See Weather… continued on page 2)***

Inside this issue:

(Weather...continued from page 1)
special abilities to fly through threatening conditions. It does give pilots an ability to make more accurate and efficient decisions about how to divert around dangerous weather. I recommend that you go up with an instructor and fly one of the Mooney's with the satellite weather on. I think you'll agree with me that you will never again want to fly without it .

Moving On Up: Checking Out In Higher Performing WCFC Aircraft

By Betsy McCracken, Gene Weaver, George Scheer, and Ronney Moss (edited by Kareem Omar)

One of the truly outstanding aspects of the Wings of Carolina Flying Club is the variety of aircraft available to Club members. Our flight line has an airplane for every level of pilot. The benefits that come with a diverse fleet, however, bring with them an obligation to learn how to operate each aircraft safely. To help Club members meet this obligation, a thorough checkout process has been developed over the years and is an integral part of the Club's safety culture.

George Scheer, Chief Flight Instructor at the Wings of Carolina Flying Club, describes a typical exchange he has with newly minted private pilots who approach him about checking out in a new airplane.

"For many years, we have done most of our primary instruction in Cessna 152s, a humble but honest two-place airplane that remains the best trainer I have ever flown. Each time I successfully shepherd a student pilot through his or her private pilot checkride, we soon thereafter have a conversation that follows along certain lines. First, I fulfill my obligation by explaining that recent time and time-in-type are the most important predictors of safe flying. I explain that the new pilot now has numerous recent hours in the airplane in which they have trained and that safety would be served by continuing to fly that airplane as they extend their wings. The new pilot listens, nods, agrees, then looks at me and says, 'So, when can we start my Warrior (172, Mooney, etc.) checkout?'

Then I hand him the manuals and we start his transition to a four-place airplane. I did the same and I understand the impulse.

Transition training is a staple of aviation. Most of we pilots have a drive to fly bigger, faster, higher airplanes – at least until we reach the flight levels whereupon the process sometimes reverses itself. A stated purpose of the club is to provide an avenue for pilots to learn additional skills in more advanced aircraft."

<u>Why would someone want to get checked out in a new airplane?</u>

Ronney Moss, a certified flight instructor at the Wings of Carolina Flying Club described his experience as he was embarking on his first aircraft checkout after earning his Private Pilot Certificate:

"I remember getting checked out in the Cessna 172 shortly after my private checkride. I was green but had very recent training. The plane seemed huge and had an incredible array of sophisticated avionics…certainly a matter of perspective but I was stoked."

The motivation to get checked out in a higher performance aircraft comes in many different forms. WCFC flight instructor Betsy McCracken explains:

"Getting checked out in a higher performing aircraft requires a desire to move out of your comfort zone. The "need for speed" could be brought on by a desire to get to your destination faster, a requirement to carry more passengers or baggage, or simply curiosity."

There are many things to consider when making the decision to transition to a better performing aircraft. Gene Weaver, another WCFC flight Instructor, describes the personal, business, and physical comfort factors that entice pilots into a new airplane.

"There are wide differences of opinion regarding a transition such as from a Cessna 152 to a Cessna 172 or Piper Warrior. Some jump at the chance shortly after passing the practical test for Private Pilot Certificate, while others elect to enjoy the plane in which they trained for at least a few months of flying about with another person aboard other than their instructor. 'Trips' to the beach, family visits, or restaurants for a pleasant meal away can provide considerable pleasure, while adding a few more hours of experience in dealing with strange airports and weather conditions that were not seen previously."

Particular needs may dictate the timing of the transition. If one needs to transport more than one other person or more baggage or other goods than normally can be handled in a C-152, the move to a larger plane is obviously necessary. The range of the plane may be a deciding factor as well. Both the Warrior and C-172 carry more than twice the fuel of the smaller craft, making non-stop trips of a considerably greater distance possible.

The greater range also ties in with a goal of more efficient use of one's time. Although the Warrior's cruise speed is not appreciably higher than the C-152, avoiding a fuel stop makes a measurable difference in the overall time spent on the trip. Other advantages of transitioning to a faster aircraft are apparent to those using planes in their business. Personal contacts can be made at convenient hours while avoiding overnight motel stays and long periods on the road. Multiple calls can be strung back to back in the course of one trip.

One's comfort while flying can be a worthwhile consideration when thinking of a transition to larger aircraft. Simply having enough leg and elbowroom to enjoy during a flight of a couple of hours or more enhances the pleasure of time aloft.

So, regardless of the goals and/or purposes of one's flying, whether pure pleasure, furtherance of business activity, or personal satisfaction in the operation of more advanced equipment and the joy of precise navigation, the pilot who moves on by moving up is usually moving in the right direction!"

Regardless of the reasons why a pilot decides to transition, once that decision is made, its time to take the first steps in learning the personality of the new aircraft.

<u>Getting Started on the Ground</u>

Long before approaching the aircraft on the ramp, the pilot must become familiar with its systems and limitations. To accomplish this, says Betsy McCracken, *"the transition process requires the pilot to learn a new Pilot Operating Handbook."*

What things should the pilot focus on? Gene Weaver has

some suggestions:

"To make your transition to a bigger or faster plane easier, allow time for thorough familiarization with the new plane. Start with careful study of the Pilot Operating Handbook, to become well acquainted with the various operating speeds you will need to use. Beyond the V speeds, study procedures for short field and soft field operations, emergency procedures for various locations and altitudes, and take time to calculate a number of weight and balance problems to see just how weirdly one may load the plane without exceeding weight or balance limitations. Performance charts can be very helpful to determine takeoff and landing distances in varying wind and temperature conditions. Check for proper power settings for normal cruise at various altitudes, too

Also take time to study information and diagrams of the various systems and their uses. When moving to the C-172, one should be sure to understand as thoroughly as possible the differences between normally aspirated engines and those that are fuel injected. There are, to begin with, differences in starting and leaning the engines. Look for others as well. Memorize fuel capacity, consumption rates, and calculate range for various power settings.

Study instrumentation and equipment differences, too. Study a GPS manual on the type you will be using, which varies from plane to plane.

Prior to your first lesson in the transition craft, take a few minutes or more to sit in it and get familiar with the layout of the instruments. Tachometers seem to be most movable, but some others, like engine instruments, can be quite differently placed as well. The location of fuel gauges, circuit breakers, and tank selection levers will also be different."

Ronney Moss emphasizes that simply reviewing the information is not enough. The pilot's knowledge of the aircraft must go deeper than mere memorization. He or she must be able to think critically about the information:

"Knowing the V-speeds and other numbers are essential. Does it have enough oil? What is best glide? How much fuel do I have? How far can I go at this power setting? Can I take Martha, the kids and the anvil? Is this runway long enough? A deep knowledge of the systems becomes more essential as you change planes. Some have fuel system quirks, some have electrical system tricks, and these "oh by the ways" remain hidden unless you study the books with intent. Your flight instructor will try to cover critical items but the pilot in command is ultimately responsible.

Learn the POH. Imagine your life and the lives of your passengers depend on how well you know your machine. Picture yourself trying to sell the plane and impressing the customer with your knowledge of all the bells and whistles. Then step into the role of a skeptical buyer and research the limitations of the machine. Some of the systems may require in-depth training; GPS and autopilot are the most glaring examples."

Having completed this homework, it's time to apply the knowledge in flight. It's time to go flying!

Strapping on a New Aircraft

The purpose of an airplane checkout is to give the pilot a chance to learn the craft's "personality" in a safe and systematic manner. Flight instructors come with a plan in the way they introduce the aircraft to the pilot. Gene Weaver explains the program from the instructor's perspective:

"After a few minutes of getting used to the plane on the ground and learning to, adjust rates of turns with judicious use of braking, the aerial work is planned to help the new pilot to achieve precision in his/her maneuvers as promptly as possible. Normal turns are followed by steeper ones, with attention to the increased back pressures necessary for level flight that are definitely heavier inputs in a heavier aircraft. A carefully executed run-through of flight at minimum controllable airspeeds is very helpful for experience in setting proper attitudes at all power settings and flap settings. The checkout is not complete without simulating emergency situations, and the stall series is also valuable in helping the new pilot to determine proper inputs for both liftoff and roundout/flare procedures.

Landing practice should include all types including proper cross-wind technique, assuming there is wind available to work with."

From the pilot's perspective, the goal is to learn what can be transferred from his or her experience and what aspects need to be adjusted to safely fly the new equipment. Drawing upon his experience of transitioning from a Cessna 152 to a Cessna 172, Ronney Moss describes some of the key lessons pilots take away from an aircraft checkout:

"The lessons I learned centered on the fact that the four fundamentals only required minor adjustments. Straight and level flight, turns, climbs and descents were familiar but the sight picture, power settings and airspeeds required a slight readjustment. Steep turns, slow flight and stalls are essential maneuvers when learning the personality of any airplane. After getting the feel of the plane we returned for some pattern work. It was a challenge to "stay ahead of the airplane." The slightly different visual cues and higher airspeed took some getting used to but it reacted kind of like a big 152. The additional horsepower made throttle changes more dramatic but soon my landings were consistent and controlled."

Having gained a general sense of the checkout process, lets turn our attention to specific aspects of the aircraft on the WCFC flight line.

Specific Items Pertaining to Club Aircraft

The most frequent transition that Club pilots are likely to make is to step up from the Cessna 152 to the Cessna 172 Skyhawk or Piper PA-28 Warrior. Each of these four seat, intermediate range aircraft have specific quirks that WCFC flight instructors point out to a pilot flying them for the first time.

While a Skyhawk may look like it should fly in a similar manner to the Cessna 152, Betsy cautions:

"Being a high-wing, the C-172 will feel the same as a C-152, except it will be heavier and faster. Things will happen more quickly in the SP. The pilot must stay "ahead of the plane". You must also watch out for sensory overload. The instrumentation on an SP is double what you are used to seeing. Do not be dismayed. Simply go to the POH section 7 and memorize all the gauges and dials. Know where they are what they do. Starting a fuel injection engine requires a different process as well."

Transitioning from a Cessna product to a Piper product means learning familiar systems that operate in completely new ways. Again, Betsy McCracken:

"The main thing to watch for when transitioning from a C-

152 to a Piper Warrior is the fuel system. Gravity does your work in a high wing, but in a low wing airplane, the pilot has the responsibility to change fuel tanks on a regular basis."

Gene Weaver adds:

"Another fairly major difference in operation of the C-152 and PA 28 is flap deployment. Since the Warrior has a nice long lever on the floor to pull up when lowering the flaps, it's up to the pilot to apply appropriate pressure at a smooth rate, since it won't be done electrically like in a C-152."

Learning new systems is just part of the adjustment a pilot must make when transitioning to the Warrior. Moving from a high wing to a low wing comes with a change in perspective from the cabin as well. Betsy explains:

"The differences in flying a Warrior include your sight picture. You do not have the same visibility in a low wing airplane."

Gene Weaver reminds us that the traffic scan needs to change as well:

"There are a few habits learned in the C-152 that need adjustment, especially if you elect to transition to a low-wing aircraft like the Warrior. One of these is the traffic-clearance scan made before turning at any time during a flight. In the high wing, looking under the wing and back to the tail before banking is essential in clearing the airspace before beginning the turn. In the Warrior, because it is a low wing, you will be able to scan into the turn while turning, so it becomes more important to check for traffic to the opposite side, traffic that may be crossing that would be hidden by the lifted wing in the turn."

Pilots who have been flying Skyhawks and Warriors for some time may wish to take on a complex aircraft with the advantages of a faster cruise speed and higher useful load. Club members who wish to check out in the Mooney, however, must first obtain 250 hours total flight time (150 hours if instrument rated). Why does the Club have a flight experience minimum? As Betsy makes clear:

"There are those who have and those who will" land gear up, which is why the insurance rates are so high on retractable gear airplanes, and why the WCFC requires more total pilot hours to qualify for transition to a Mooney, and why the deposit and rates are the highest for a Mooney. The obvious difference is the retractable gear mechanism. The engine is also more powerful (although not high performance) and the avionics are more complex. You must learn to manage a constant speed propeller as well."

<u>How long does it take to get checked out?</u>

Gene Weaver answers this question directly, saying:

"The entire transition flight time is difficult to predict, but most people get the basics pretty well mastered between 4 ½ and 6 to 7 hours. Much depends on the extent of the work with new navigation tools and how well mastered that needs to be in the instructor's judgment."

Betsy McCracken adds:

"A pilot's hours will differ from person to person. A good rule of thumb is your confidence in your abilities in the basic trainer. If you are struggling in the 152, stay where you are and build proficiency."

Ronney Moss drives home the point that the length of time it takes to get familiar with a new aircraft is largely within the pilot's control:

"The first question is usually, "How long will it take to get checked out in the X-27B [or whatever airplane you happen to be interested in]?" The response depends on the answers to two additional questions. How good are you? How hard are you going to work? Natural talent aside, piloting skill is a combination of currency, proficiency and experience.

How good are you? If you are attuned to your current airplane and strive for precision then the monkey skills are relatively easy to pick up. But we strive to be more than monkeys driving airplanes."

The most important factor that affects how quickly and smoothly the checkout process will be is overwhelmingly the quality of primary training, says George Scheer:

"First and foremost, what works is good primary training. Pilots who learn the fundamentals properly will find the transition to instrument flying, to complex airplanes, to faster airplanes, and to larger airplanes straightforward. Pilots who never learned the fundamentals properly – and there are more of them than you might imagine – will struggle any time they move into a new airplane or take on a new challenge.

Sure, we'll have to talk about how the systems differ from what you've been flying – you will learn about constant-speed props and fuel injection and multi-engine aerodynamics and flight by instruments and turbochargers and retractable gear and pressurization and turbine power and on and on. Don't misunderstand – there's a lot to learn. The learning never ends. That's why we love aviation. If you want to quit learning, find something else to do. But, trust me, if you master the fundamentals, no airplane will ever be a mystery."

Comparing Club Membership To Airplane Ownership

By Mike Fox

Most every pilot, at one time or another, fantasizes about owning an airplane. Who has not done the back-of-the-envelope numbers to convince themselves (or skeptical spouses) that it is both affordable and practical to own an airplane? For all but the most active pilots, however, it is not all that practical. In fact, *Aviation Consumer* reported in their April 2007 issue that the airplane value trend is changing and airplanes now lose value like cars. The days of buying a used airplane and selling it a few years later for what you paid for it (or more) are probably over.

Membership in the Wings of Carolina Flying Club is a very attractive alternative to airplane ownership. If you are considering purchasing an airplane, either individually or as a partner, consider the following factors:

<u>Cost And Cost Control</u>

As an airplane owner, you will have high fixed costs and will also have to be prepared to lay out money in unexpected thousand dollar increments for repairs, annuals, etc. This is so pervasive, as a matter of fact, that on internet sites where airplane owners gather, the term "Aviation Monetary Unit" is used to denote $1000 because it's less painful to say that you spent 2.3 AMU's than $2,300 for an annual inspection.

As a Club pilot, your costs are not only lower, but also predictable and wholly within your control. If you own an airplane and don't fly it in a month, your full fixed costs will still

apply. Your only fixed cost as a Club pilot is dues, currently $60 a month. If you don't fly in a month, you only pay $60. If money is tight one month, you can fly less or not at all, giving you much more control over your aviation finances.

Furthermore, though no one wants to contemplate it, if you lose your medical or have a change in your personal financial situation and have to stop flying, you can walk away from the Club and get your deposit back without being stuck having to sell an airplane you can no longer fly or afford to fly (or keep) in a down market.

The average active private pilot flies about 50 hours a year. Most honest calculations indicate you have to fly about 100 hours a year to make the numbers work out for ownership (see reference 2).

When comparing the cost of ownership, there is another important factor to consider. All club members are covered as named insureds by the Club's insurance policy as part of their dues and hourly rate (no subrogation). Try finding an FBO with *that* deal. So, when making cost comparisons don't forget the cost of insurance.

Risk Of Maintenance Surprises Spread Out

Because the Club has a large base of members and a budget for maintenance, you don't get a sinking feeling when something like a vacuum pump breaks. Also, because the Club has a fleet of airplanes, unlike an aircraft owner, you will not be grounded while the airplane is in the shop for repairs, inspections, overhauls, etc.

Club members actively participate in maintenance and the Club's dues and hourly rates cover maintenance and repairs. So, everyone is collectively responsible for maintenance and repairs. But, no one member gets hit with an expensive surprise when that "vacuum" annunciator illuminates on the panel.

Fleet Flexibility

One of the hardest decisions to make when purchasing an airplane is which plane is best for your mission? It is almost always a compromise. If you buy a complex, high performance plane, it's very expensive to take for the $100 hamburger or just to fly around the pattern on a warm summer evening. If you buy a fun flyer, you won't want to take it on long trips and it probably can't fly in instrument conditions. Very few airplanes fit all missions, and when you own one airplane you'll end up compromising some of your flexibility.

But, as a Club member you don't have to compromise. The Club makes available to its members airplanes ranging from simple VFR trainers (Cessna 152) to instrument trainers, intermediate four place traveling planes (Piper Warrior and Cessna 172), and complex traveling planes (Mooney M20J). A Club member can check out in as many types as he or she wants, and only pays the deposit for the highest aircraft type. So on any given flight, you can choose the airplane that is a perfect fit for that trip.

So you just want to go out on a nice night and fly locally and enjoy the sunset? Fly a 152 that day. Want to go to New England or Florida or some other destination that requires serious travel? Take a Mooney. Need something in between, like a shorter trip or an instrument lesson or a currency flight? Take a Skyhawk or Warrior. All these airplane types are available to all members who meet experience and checkout requirements. Now *that* is true aviation freedom!

Some additional references:

1. A half-owner of a Mooney explains how much it costs and why he's getting out: http://groups.google.com/group/rec.aviation.owning/msg/422777b26e94f82c?dmode=print&hl=en

2. Estimated cost to own spreadsheet (note that there isn't a place to put the cost of the aircraft loan, so you need to put that somewhere in monthly fixed costs): http://www.ben.com/flying/costown.html

The Wings of Carolina Club House: Present and Future

By Jan Squillace

Driving through the gate from Ammons Farm Road early on a winter morning, you can see the Wings of Carolina Flying Club building silhouetted against the gray sky, a boxy structure huddled against the cold morning, streaks of yellow and orange dawn showing behind the airplanes on the ramp. I park my car at the space farthest from the door. The parking lot is already full.

Inside to the right of the door is a comfortable seating area. A flight instructor huddles with his student. The two are deciding on the day's flying excursion, discussing flight planning. The instructor quizzes the student about airspace rules and military operations areas as they pour over the sectional chart on the table before them.

A board member sits at the lobby desk, listening to the messages from callers inquiring about the Club and membership. How do you learn to fly? Does the Club offer flight training? All messages are dutifully written down so calls can be returned later.

A trim man stands at the cabinet, checking through the books and pilot supplies. He has broken his plotter. Ah, there you go, here is one with just a $2 tag on it. Someone else is looking for a review guide for the Instrument Rating written test. That's there, too. Fill in the orange slips for payment and drop them in the gray lockbox.

At the beginning of the hallway on the left, a woman checks the bulletin board for her airplane reservation. She signs out the black clip-box and prepares to go to the ramp.

I go straight toward the flight planning room. The weather computer is ready to tell me about conditions anywhere in the United States. I really only care about the winds between Sanford and Wilson, my destination for the day. Oh, and no fog or precipitation would be great, too. The bulletin board above the computer monitor has announcements about flight safety, discount headsets for sale, and suggestions for flight destinations. A small graph for calculating cross-wind component of wind in comparison to runway heading has worn spots and numerous pen marks from the legions of pilots (student and experienced) determining if the wind is right for a take-off or landing.

Just beyond me, several pilots are huddled around the speakerphone in the Common Room. They are calling a Flight Service Station to get a weather briefing for a day's excursion to the beach. After the briefing, they check the sheet on the chart cabinet behind me to ensure they have current sectional and IFR charts. Several charts are replaced and they are ready to go.

The opposite corner of the Common Room has a couple of small refrigerators holding soda pop, fruit juice and bottled water. The shelves in the corner are a snacker's dream; several forms of chocolate bars and chips, granola bars, nuts, Moon Pies, and the classic "pilot's crackers". The worn Red Tin on top of the refrigerator containing the honor payments is testament to the sustenance provided.

Walking out to the ramp, I see the unoccupied bench outside the door. The bench in warmer weather is a wonderful way to spend a weekend afternoon watching the airplanes in the pattern. The path out the ramp is paved with commemorative stones engraved with names and dates. I wonder about the names I don't know. Where are they now? Are they flying somewhere else? Are they flying?

The door goes up on the hangar behind me. I hear the hydraulic lifters strain to get the door all the way open. Several airplanes have been in the hanger overnight to prevent them from getting frost on the wings. Hurray, I don't have to wait for the ice to melt on my Cessna 152!

This stroll through the building reminds me just how well the Wings of Carolina Club House supports all the things that go on at the Club.

The Club's facility at the Sanford-Lee County Regional Airport has served the Club well since it was built in 2003. It has allowed the Club to engage in all the activities we care so much about and hold a multitude of events that promote General Aviation. These activities and events would be much more difficult if such a facility were not available to the Club.

Further, the facility is a physical manifestation of the Wings of Carolina Flying Club's legitimacy within the aviation community, projecting permanency and stability to all those who gaze upon it. When people visit the Club House, they will *know* that the Club is serious about flying and safety.

However, control of the facility will not always be in the sole hands of the Club. As with all the structures built on airport property at Sanford (and most all other airports), the building belongs to the Club, but the ground on which it sits belongs to the Airport Authority and is only leased by the Club. When the Wings of Carolina Flying Club came to Sanford-Lee County Regional Airport in 2001, the Board of Directors signed a twenty-year lease for the ground that the clubhouse was built on. The Club agreed to construct their own building and cede it to the Airport Authority at the end of the lease. It was under these conditions, and these conditions alone, that the Airport Authority would allow the Club to operate out of Sanford.

We are not waiting until 2023 to take action and secure the continued operation of the Club out of Sanford. The current board is working with the Airport Authority to negotiate the most favorable agreement possible for the Club. The Club has worked hard to cultivate a favorable and mutually beneficial relationship with the Airport Authority, and this should help to assure our continued enjoyment of the facility we have built and developed.

I'd like to see the Club House last forever, for everyone who dreamed of piloting their own airplane. You can affect the future of WCFC facility. If you have an interest in longer-term planning, call or email Paul Wilder and tell him that you are ready to serve by participating in a group working on the future of WCFC.

The next time you are at the Club House, take a moment to reflect on what the Club and the Club Facilities mean to you. How different would your flying experience be if you did not have access to such a fine facility? Let us all keep that though in mind and do all we can do maintain and protect the home of our beloved flying club.

WCFC Flight Instructor Earns Prestigious Gold Seal Certificate

By Kareem Omar

The Wings of Carolina Flying Club has always strived to attract the very highest caliber of flight instructor. Flight instructors are an essential part of the Club's safety culture.

Recently, the FAA made official what we at the Club have know for some time; WCFC Flight Instructor Ronney Moss provides his students with high quality instruction that will prepare them not only for their checkride, but for their future aviation career.

Ronney was awarded the Gold Seal Flight Instructor Certificate. Instructors qualify for this honor only after earning a Commercial Pilot Certificate with Instrument Rating, a Basic Ground Instructor Certificate with an Advanced Ground Instructor Rating and/or an Instrument Ground Instructor Rating. Having done this, candidates must then train and recommend for the practical test at least 10 students (8 of whom must pass on the first try) within the preceding 24 months.

These high standards increase the likelihood that the students who take instruction from these skilled teachers will be safe members of the aviation community.

The Wings of Carolina Flying Club is fortunate to have an instructor who demands the best from his students and himself. With any luck, Ronney will be part of our community for many years to come. Congratulations Ronney on your accomplishment!

Volunteerism: An Update

By Kareem Omar

In the Summer 2007 edition of *Flying News*, The Wings of Carolina Flying Club membership was encouraged to volunteer more time at the Club. In fact, a challenge was put down to dispel the notion that there was not enough esprit de corp at the Club to expect the membership to chip in more time and effort.

After having talked to a number of people at the Club, I am proud to report that the membership has indeed heard the call and volunteerism has increased. If you are one of the Club members who has made an increased effort to help out, please know that your work has been noticed and appreciated. This is clear evidence that the membership sees the value the Club represents and are willing to do their part to keep it up.

That is not to say that there is not more to do, nor can we afford to rest on our laurels. We must continue to make small, manageable, but consistent contributions whenever we can. Fortunately, the membership is filled with outstanding people who make the Wings of Carolina Flying Club a great place to fly, learn, and relax. Keep up the good work!

Newly Earned Certificates & Ratings

May 2007 — August 2007

SOLO

Kory Adams	Betsy McCracken
Jeff Brubaker	Steve Delamar
Mike Furlong	Ronney Moss
David Greenfield	Betsy McCracken
Shana Lowther	Steve Delamar

PRIVATE

Ron Bickers	Gene Weaver
Phil Hayden	Betsy McCracken
Shana Lowther	Steve Delamar / Ronney Moss
Hunter Moore	Steve Delamar
Jan Squillace	Sam Evett/Gene Weaver

INSTRUMENT

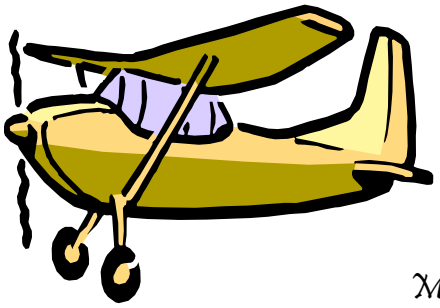
Mike Trevillian	Ronney Moss
Ken Williams	Sam Evett

CERTIFIED FLIGHT INSTRUCTOR

Ronney Moss	Gold Seal CFI

New Members Since June 2007

PLEASE WELCOME THESE NEW ADDITIONS TO



Ray Antonelli

Douglas Camp

Tom Cleveland

David Dusto

Jason Hursley

Mahesh Kommareddi

Stanton Pickens

Bill Terrill

WCFC NOTAMS

- **Pilot Supplies**. Would you like to save 20%, after tax and shipping, on pilot supplies? As a member of the Wings of Carolina Flying Club, you can take advantage of an arrangement the Club has with McConnell Aviation (www.mcconnellaviation.com). Simply contact Jan Squillace (jsquillace@nc.rr.com) and give her the name of the product and the retail price, which you can find on the McConnell website. By combining your order with the Club's regularly scheduled order, the Club saves money on shipping, and you can get great deals on supplies. What could be better?

- **Headset Maintenance**. If you have ever invited someone to go flying, you know how nice it is to have extra headsets available at the Club to loan to your guests. However, the headsets have taken a beating over time and are in need of minor maintenance. We would appreciate it if a Club member would volunteer to make these repairs. Those interested should contact WCFC Vice President, Barbara Eldredge. Thanks.

- **Piper Warrior Acquisition**. Director of Maintenance John Hunter is currently looking for another Piper Warrior to join 8330S on the Wings of Carolina flight line. When this happens, the Club will have four intermediate range, IFR equipped aircraft in the fleet. Watch your e-mail for more information.

- **Student Pilot Group**. Are you working on a new Certificate or Rating? Would you like to meet and discuss flight training with other student pilots? Consider coming out to the monthly Student Pilot Group meeting. All pilots and potential pilots welcome. For more details, contact Kareem Omar at (919) 696-4160 or e-mail at kaomar@ncsu.edu.

- **Plane Wash**. Want to help keep the Wings of Carolina fleet looking its best. We need a team of 8 to 10 people to come out to the Club and help wash and wax a Cessna 172. If you are interested, come on out before the October 2nd Saturday Cookout and lend a hand. Festivities begin around 10 A.M. See you there!

Wings of Carolina Flying Club Meeting Schedule

	2nd Sat. Cookout	Board Meeting	**Membership Meeting / Pizza Night**
October	Oct. 13 2007	Oct. 9 2007	Oct. 25 2007
November	Nov. 13 2007	Nov. 10 2007	N/A
December	Dec. 8 2007	Dec. 11 2007	Dec. 18 2007

Wings of Carolina Flying Club

Sanford Lee County Regional Airport
702 Rod Sullivan Road
Sanford, NC 27330
919-776-2003
http://www.wingsofcarolina.org

Chief Flight Instructor	George Scheer	919-967-1088	cfi@wingsofcarolina.org
Dir of Maintenance	John Hunter	919-818-7203	airplanehunter@hotmail.com
Chief Safety Officer	Dick Kenney	919-542-6010	rkenney1@nc.rr.com
Board of Directors			
President	Paul Wilder	919-672-5458	pres@wingsofcarolina.org
Vice President	Barbara Eldredge	919-403-6183	vp@wingsofcarolina.org
Secretary	Keith Silva	919-618-3468	secretary@wingsofcarolina.org
Treasurer	Dave Derry	919-649-7834	dave.wcfc@stratusbiz.com
At Large	Jim Carlson	919-815-2250	carlson.jim@verizon.net
At Large	Ken Williams	919-810-8063	Ken_Williams@nc.rr.com
At Large	Eric Wagner	919-345-4940	ewagner@nc.rr.com
Key Volunteers			
Asst. Treasurer	Ken Williams	919-810-8063	Ken_Williams@nc.rr.com
Facilities Coordinator	David Hughey	919-412-4475	dhughey@nc.rr.com
IT	Eric Wagner	919-362-5004	ewagner@nc.rr.com
Maintenance	Vacant		
Marketing Committee	Vacant		
Newsletter	Kareem Omar	919-696-4160	kaomar@ncsu.edu
Pilot Records	Kay Maltbie	919-523-6544	kays.key1@verizon.net
Plane Wash	Vacant		
Second Saturday Events	William T. Sawyer	919-732-5306	william.sawyer@quintiles.com
Supplies	Jan Squillace	919 –650 -1915	jsquillace@nc.rr.com
Website	Brian Dale	919-606-0262	tbdale@gmail.com

Member Meetings

Membership meetings (Pizza Nights) begin at 6:30 PM and include free pizza, a business meeting, and a program of interest to pilots. In addition to club members, these meetings are open to local and prospective pilots who may have interest in the club – the more the merrier!

Board meetings routinely occur on the second Tuesday of each month from 6:30-9 PM. Board meetings are held in the Wings of Carolina Flight Center. All members are welcome and are encouraged to attend. Occasionally there will be a change in meeting date. Please keep an eye on your e-mail for any additional meetings.

2nd Saturday Cookouts occur at the hangar on the 2nd Saturday of each month, 11:30 am-2:00 pm. Members and guests can buy lunch for $5 for adults (>12) and $3.00 for children (6 - 11).

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.

Flying News
Wings of Carolina Flying Club
702 Rod Sullivan Rd
Sanford, NC 27330