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## Island-hopping into spring

This is a great year to go to Ocracoke

By Michael Hrivnak

Ocracoke Island is one of North Carolina's great treasures. Isolated from the mainland, the town's three-digit population dates back to the early 18th century, when the island was a favorite hideout for Edward Teach, AKA Blackbeard. You can still hear an old English accent among some of the locals. The island is charming, quirky, relaxing, and beautiful; a perfect vacation getaway.

There are only two ways to get there: boat or airplane. The 2998-foot runway at W95 is mere steps from the beach and a 15-minute walk into town. From KTTA, it's about 160 nautical miles depending on your route, making it an accessible

day trip for any airplane in our fleet. But if you have the time, you won't regret spending the night. Rooms are especially affordable in the off-season.

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## Certifications and Solos

Where available, instructors listed in parentheses.

- 8/20 Deepak Kongath— Commercial
- 8/30 Steve Shields (solo) (Thomas)
- 8/25 Mike Nativi (solo)
- 9/1 Gregg Tracton (solo)
- 9/2 Alex Zaterka (solo)
- 9/11 Todd Shields (solo) (Thomas)
- 9/11 Luke Sain— CFI (McArthur)
- 9/14 Alex Rice (solo)
- 9/15 Bob McCarthy — Instrument

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## The risk management club

By George Scheer

If you and I sat down with a clean sheet of paper to design an organization intended to cause airplane crashes – it would look a lot like the Wings of Carolina. If we were to design a flying organization from jump street, starting with a blank slate, with the primary purpose of causing mishaps and mayhem it would much resemble the Wings of Carolina.

What we do every day is very much the same thing that causes people to come to a bad end in airplanes. We have not designed our procedures for that purpose and it is not our proclaimed mission, but intentionally or not, every day we do things that correlate nicely with the first paragraphs of an NTSB report. And yet, I can sincerely recommend the club to prospective stu-

dents and members as an example of a culture dedicated to aviation safety. Paradox? Not really. How so?

Keep in mind, I love the Wings of Carolina and believe in it as an organization, as a culture, and as an aviation institution dedicated to safety. But I think always about risk management, which is really what we do, and about what cor-

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### Continued from page 1

On a Sunday in mid-December, I flew a club Warrior out to Ocracoke with fellow club members Geoff Myers and Caitlin O’Shea for lunch. I filed and was cleared direct, right through R-5306A. Sometimes they make you go around the restricted

We can help by visiting the island and patronizing those businesses that have reopened. The empty airport tiedowns on a perfect December day suggest that people may not realize the island is ready to welcome visitors. Spread the word! It’s one of my favorite places to visit in the off-season, and this year they need support more than ever. If you’re looking for a unique getaway within easy range of TTA, Ocracoke Island is for you!

through R-5306A. Looking northeast toward Hatteras we could see the thin line of barrier islands extending to the horizon, far from the mainland. Coastal NC is an amazing place to fly, and Ocracoke Island deserves a spot on any of our bucket lists. Grab a friend or two and start planning your trip!



We returned to the airport, departed to the southwest and circled the island while we climbed: an opportunity to take

area, which only adds a few minutes, but on this day we got lucky.

After crossing the Pamlico Sound, we circled the town once and then joined a downwind, eyeing the fully-extended windsock- a common greeting on the Outer Banks. On the ramp, there are about 20 tie-downs with ropes in good shape, and we had our pick as the only airplane there that day. We walked into town, ate lunch at Sorella’s, and explored the marina area on foot.

Hurricane Dorian caused severe flooding on Ocracoke Island, the worst since 1944, resulting in widespread damage that left many businesses and homes uninhabitable. The island is still recovering and only reopened to visitors on Dec. 2, though many businesses will remain closed until spring. We saw several buildings undergoing demolition, more undergoing restoration, some being lifted, debris piled high, and flooded cars lining the side of the highway.

A small army of volunteers and construction crews have been working to get the island back on its feet.

in one more view and pick up flight following from Cherry Point. Luck was on our side again as they cleared us

#### Want to help with the newsletter?

#### We could use your stories!

We could also use help in the following areas:

- Desktop publishing (MS Publisher)
- Folding and stamping
- Photography!

If you’d like to help, contact newsletter editor David Fellerath, member 2254, at [david.fellerath@gmail.com](mailto:david.fellerath@gmail.com).



*Photos from Ocracoke on this page, previous, and opposite submitted by Michael Hrivnak, in red hat above.*

## Letter from the president

**By Geoffrey Myers,  
WCFC Board President**

The club is operating smoothly right now, so my first goal for 2020 is to keep that going. Last year we flew almost 7,000 hours (just 220 hours short!). Prior to that we had never broken 6,000 hours. This was due in large part to our maintenance staff, who always made the extra effort to get a plane back on the line in time for its next scheduled flight. Our maintenance staff will have their hands full this year, as we expect to replace five of our engines this year.

A couple years ago, a fleet committee was convened to look at the current state of the fleet and make recommendations for the future. That committee found that the current mix of aircraft works well for the fleet, and that glass cockpits “should be introduced within ... five to seven years, sooner if cost effective opportunities were presented.” We have reached a point where I believe there are cost-effective upgrade options for the Mooneys, C172s, and Warriors. Accordingly, I would like to further the work done by the fleet committee and put together a plan to upgrade those types. The first step will be putting together a committee to evaluate which upgrades make sense for our fleet and determine how best to implement those upgrades in a fiscally responsible manner. We’ll then decide how to move forward based on the committee’s findings.

Toward the end of 2018, MyFBO was struggling and the 2019 board started thinking about replacing it. Many members may

not realize just how much of the club’s operation depends on MyFBO. It is our member roster and manages all of our flight operations. It’s where we process all of our payments for flight time, classroom materials, and T-shirts. It’s the source of the reports for the monthly meeting, and that data is also tied to our insurance payments. There are probably many more functions it performs that most of us are un-

ware of. Fortunately, MyFBO stabilized in early 2019 so we didn’t have to replace it.

However, there is no denying it is an aging tool, and sooner or later it will have to be replaced.

To that end, one of the things I would like the club to accomplish this year is to understand all of the things MyFBO does for us, and document those functions. We need to fully understand all the ways in which the club relies on MyFBO. From there we can start to explore options. The ultimate goal is for the club to be in a position where if we had to replace MyFBO we would be ready to. This would also give us the option to replace MyFBO if it makes sense. Along the way we’ll likely find some opportunities for improvement as well.

So that’s what you can expect to see this year. Mostly business as usual, with plans to make some improvements to the fleet and hopefully leave us less vulnerable to problems with MyFBO.



## Upcoming Events

**Feb. 20** Pizza Night  
 (“Seaplanes!”)

**March 7:** Aviation medicals

**March 10:** Board meeting

**March 14:** Second Saturday  
cookout

**April 11:** Second Saturday  
cookout

**April 14:** Board meeting

**April 25:** Aviation medicals

**May 9:** Second Saturday cook-  
out

**May 12:** Board meeting

**May 30:** Aviation medicals

**June 6:** Aviation medicals

**June 9:** Board meeting

**June 13:** Second Saturday  
cookout

## Ground Schools

2020 Summer Private Pilot :  
May 18-July 16

2020 Fall Private Pilot: Aug. 19  
-Dec 19

2020 Fall Commercial Pilot:  
Sept. 14-Nov.30

## New Location!

The IMC and VMC club meetings, which happen on first and fourth Tuesdays of each month, respectively, have moved to the airport’s main administration building, located at the north ramp.

**DPE Corner**

By Jay Nabors

FAA Designated Pilot Examiner, Master & Gold Seal CFI, CFII, AGI, IGI, MEI, Commercial ASEL, ATP-AMEL, SIC CESS00, FAA FFAST Team Representative

**Scenario -  $V_A$ ,  $V_{NO}$ , &  $V_{NE}$  - what are you going to “DECIDE”?**

Let’s review some relevant V Speeds for this scenario.

$V_{NO}$ —the maximum speed for normal operation or the maximum structural cruising speed. This is the speed at which exceeding the limit load factor may cause permanent deformation of the aircraft structure (page 11.19 PHAK.) Notice that it

doesn’t say anything about load limits and stalling before aircraft parts start bending. It addresses the overall aircraft structural capability and an implied warning if any excess load occurs you could get parts bending. Most aircraft manufacturers publish that flight between  $V_{NO}$  and  $V_{NE}$  should only be attempted in smooth air. Why? Because that implies there would not be any momentary gusts or bumps that would create a momentary excessive load factor and exceed structural load limits momentarily. There are no safeguards built in (like stalling before bending) in these speed ranges.

$V_{NE}$ —the speed that should never be exceeded. If flight is attempted above this speed, structural damage or structural failure may result. Get the hint? Parts will start to bend and break.

$V_A$  - Design maneuvering speed – “which is the speed below which you can move *a single flight control, one time, to its full deflection, for one axis of airplane rotation only* (pitch, roll or yaw), in smooth air, without risk of damage to the airplane” (PHAK Chapter 5).

Let’s look at a scenario where all these aerodynamics and ADM can come into play – You’re flying VFR

toward a front. You are VFR and the flight can easily be conducted in VMC all the way to destination. However, you are detouring around a thunderstorm (at least 20 miles, right?). You remember there is a possibility of entering an outflow boundary (remember what that is? It is a mesoscale boundary separating thunderstorm-cooled air (outflow) from the surrounding air) but you still



have VFR visibility and cloud clearances and you are enjoying a nice smooth flight so far. You then analyze your situation and note flight circumstances might change (and remember your 3P or DECIDE model you use consistently for ADM).

You’re currently in smooth air and flying 5 knots above  $V_{NO}$ . What are you going to do?

You **D**etect there is a potential hazard of possible turbulence and the possibility of exceeding aircraft limitations. You **E**stimate that you need to do something along the lines of slowing down (or other options such as turning around) You **C**hoose a desirable outcome. Everything looks good other than a chance for some chop/turbulence so you **I**dentify the actions that you will need to do as you proceed ahead vs turn around. Your choice of actions is to slow down. You **D**o the action to slow down. Now the question is “how slow?” You don’t want to be in the situation of **E**valuating the effect of your action only to find out parts starting bending/falling off. You analyze If you **D**o slow down to below  $V_{NO}$  are you in good shape to avoid bending airplane parts if the smooth

air you are enjoying changes?

You continue to analyze the slow -down action you **I**dentified. How slow should you go?

You evaluate how much risk you want to take. You know from past experience that it is safe to slow down below  $V_{NO}$  in some light turbulence. But you haven’t been near a thunderstorm this ugly and you are starting to pick up a little chop already. You decide to widen your separation more than 20nm and reconsider how much slower you want to go as your airspeed slowly reduces below  $V_{NO}$ .

You decide to play it safe and slow down to your estimated  $V_A$  speed that you calculated as part of your weight and balance preflight exercise. Will you be safe at  $V_A$ ? You recall some of your excellent instruction you got from your WCFC instructor about what  $V_A$  means. You recall in your ground lesson the definition of  $V_A$  (above) and that if you fly just below  $V_A$  your aircraft can handle a load limit equivalent to full scale flight control in one axis only. You note turbulence is not always one axis only and you decide to slow down a little further than your estimated  $V_A$ .

You encounter the outflow boundary and momentarily experience loss of control due the resulting turbulence. It passes. Some unsecured items flop around the cabin but other than that you are none the worse and happy you remembered your training on  $V_A$  and made sure you made a deliberate risk analysis. The aircraft stalled before exceeding load limits and you are glad you didn’t eat that chili turbo-burrito before you flew.

**Changes to Airmen Knowledge Test Report (AKTR)**

If you are planning on taking your knowledge test after Jan. 13, 2020 you and your instructor should be aware of the following changes.

The following AKTR changes will occur on January 13, 2020:

The AKTR will no longer have the embossment or raised seal and reprinting of your AKTR will be much easier (self-service) than having to request another original embossed AKTR if you lose your original.

You should already have been registered in IACRA (to get your student pilot certificate) and you will see that your FTN will now be printed on AKTR as a replacement of the Applicant ID number. (If not, you will need to register in IACRA and get your FTN number before you can take any FAA knowledge test after Jan 13.) Once you have your FTN and are ready to take the knowledge test, you can register at <http://www.catstest.com/>. Be sure to take your FTN with you to the CATS testing center.

For Instructors (and students): It's been rumored for years and has been sorely needed. It's finally happening. The (in)famous PLT CODES will be replaced with ACS codes on AKTs taken starting January 13, 2020. This will reference back to specific knowledge, risk, and skill tasks in the relevant Area of Operation.

Now when you review your student's missed questions, it will be much easier to focus on the specific Task/AOA that was deficient.

### ADS-B Note

As you probably know, after Jan. 1, 2020, all aircraft flying in class A, B, C, and class E airspace within the 48 contiguous states and the District of Columbia at and above 10,000 feet MSL, excluding the airspace at and below 2,500 feet above the surface are required to have ADS-B Out.

All Wings of Carolina aircraft are ADS-B equipped. However, note that if your GPS (except for C152s, which

do not have GPS other than the built-in GPS on the Stratus ADS-B unit) isn't working, you are not transmitting all the required ADS-B information and thus not ADS-B compliant. If you see in the squawk book that your aircraft's GPS is inoperative, you cannot fly it (unless you plan on flying it below 2,500 AGL outside the previously mentioned airspaces) (Thanks to Heinz McArthur for bringing this one up!)



### Pilot ATC Nugget - Which way do you turn if you do a go-around on RDU RWY 32?

Rob Ross – RDU controller instructor - says that when given a landing clearance you will note that tower will note which perpendicular runway is active. Example “Cessna 12345 cleared to land RWY 32 traffic landing and departing RWY 5R” ATC provides that information to you and expects you to conform with the flow of perpendicular traffic in the unlikely event you need to execute a go-around. A go-around based on the above example would have the pilot executing a right crosswind turn out instead of a standard left turn out. That being said, ATC runbooks require advis-

ing pilots to be alerted to converging runway traffic, line-up-and-wait traffic, etc., as standard practice.

As a final note, Rob says “I strongly suggest that aircraft do not start a turn on their own without getting instructions from ATC. We are in a radar environment and control all the traffic VFR and IFR. In most situations, though, you can expect a turn in the direction of the flow.”

### Pattern altitude how far out?

How far out should you be at pattern altitude before you enter the pattern? I've heard other examiners state 5 NM. Some other instructors say as soon as you enter the pattern. Others say when you enter the magenta ring in the class E airport. (And where exactly is that?) Other opinions include 3 miles out; 2 miles out; should be high enough to glide to airport; and to enter the pattern safely.

What is the correct answer? AC=90-66B Non-Towered Airport Flight Operations and the Airplane flying Handbook (AFH) Chapter 7 provides some information on pattern entry, right way rules and other good information but is (mostly) silent on how far out you should be. The FAA only defines two dimensions of the traffic pattern. They also provide us a clue as to how far out they want us to be before entering the pattern. Why doesn't the FAA provide exact dimensions for airport patterns? I don't have a concrete FAA answer, but I suspect one reason may be that a Learjet's pattern will be slightly different than the Cessna 152s. One size doesn't fit all when it comes to patterns.

There are two airport dimensions the FAA does refer to indirectly. One is the downwind width. “This leg is flown approximately one-half to one mile out from the landing runway and at the specified traffic pattern altitude.” (Chapter 7 AFH). So, if you are two miles out then per the AFH you are still out of the pattern. The FAA also states on midfield

crossings and teardrop entries that you should “cross over midfield at least 500 feet above pattern altitude (normally 1,500 feet AGL.) However, if large or turbine aircraft operate at your airport, it is best to remain 2,000 feet AGL so you’re not in conflict with their traffic pattern. When well clear of the pattern—*approximately two miles*—scan carefully for traffic, descend to pattern altitude, then turn right to enter at 45 degrees to the downwind leg at midfield.”

We get a clue on the above midfield crossing about the second dimension – **Altitude**. If you are above pattern altitude, then technically you are not in the pattern.

This topic came up in an FAA discussion I had last year about when can you make a right turn out on departure. There is no longitudinal dimension specified for traffic patterns. The FAA opinion I got was “you can turn right when you are no longer in the pattern which is.... above pattern altitude.”

We can talk about other ideas and opinions as there are plenty to be had on this topic along with a couple of rabbit holes such as “How far out on final is someone considered to be in the pattern.”

IMHO, I like defining pattern altitude in such a way as if I lost my engine, I would have a shot at making the runway and be at PA no less than 1 NM and preferably 2NM out. I’m not a fan of PA at 5 miles out as in a best-case scenario I would have some explaining to do as to why I was so low, so far out, when I lost the engine.

Since “nearly all accidents occur at or near uncontrolled airports and at altitudes below 1,000 feet,” it remains your responsibility and

using good ADM to enter the pattern “safely.”

My advice: Include in your decision-making compliance with FAA rules and best practices; use of common sense; and exercise a strong ADM attitude when conducting all phases of flight. Extra vigilance is warranted in congested areas such as the pattern.

**Improper Pilot Comms Phraseology - a list of the commonly heard incorrect CTAf calls and other ATC communications**

Here’s a short list of the most common (and uncommon) ones we all may have heard. “*Traffic in the area, please advise*” is not a recognized Self-Announce Position and/or Intention

phrase and should not be used under any circumstances.

***Taking runway 3 for take-off*** – please leave it for others to use.

***Departing the area to the NW - final call*** – Final call is not necessary

***Raleigh Exec Traffic Cessna 12345 turning final zero three***– I look all the time to see if someone had sneaked out and painted a zero in front of the 3. They haven’t and the correct phraseology is runway “3”, pronounced THREE or, more correctly, “TREE.”

***RDU Approach Warrior 12345 with you*** - Glad to hear they are on the same side but not best practice comms.

**RDU ATC** – Cessna 12345 squawk 4646 and ID, Pilot responds “*Squawk 4646 and the flash*” – I’m not illuminating my flashlight at the tower so no flash.

***I have traffic on the fish finder*** - Guilty at one point but have long since stopped doing that and I only had a fish finder when I had a boat.

***Raleigh Exec Cessna 12345 Cleared the Active*** – Promoted?

**Don’t say,  
“Taking runway 3  
for take-off.”  
(Please leave it for  
others to use.)**

You are now an ATC controller and TTA is now a controlled field? Only ATC on a controlled field can designate a runway to be active. Proper phraseology should be “clear runway” 3 or 21 as appropriate.

***Raleigh Exec Malibu 12345 Line up and Wait RWY 3*** – Beyond the fact that the aircraft likely created a class C or D runway incursion by moving onto the runway behind you before you even lifted off, only ATC can issue a LUAW (and worse you can still hear other folks state “taxi into position and hold runway 3)

**First self-announcement into the pattern “Archer 4567 entering left downwind runway 3”** - I think we all would have wanted to start looking for inbound traffic before they had already gotten in the pattern.

***Washington Center Diamond 12345 going off-frequency to get updated weather be back in a minute*** – You never received ATC authorization to go off frequency. Ask and receive permission instead of seeking forgiveness from a possibly irate ATC controller when you get back on frequency.

***Piper on Downwind, King Air entering right base, Archer turning crosswind.*** – Good info that we generally know what aircraft, but comms best practices recommend using your Tail number.

And the funniest one I heard in the last few months

***“Raleigh Approach Cardinal 45678 inbound for landing and I have the booze news”*** is not the same as having ATIS information Whiskey (heard that one late at night coming back into RDU.)

(Reference source <http://tfmlearning.faa.gov/Publications/atpubs/FSS/fss1301.htm>)

That’s all for now . Until the next edition ... *Squawk VFR, frequency change approved.*

## Tales from Training: Saved by a Delta Air Lines Pilot

By Tom Clephane

Your cross-country flights as a student are memorable unless you burn it into your memory by making a mistake like the one I did.

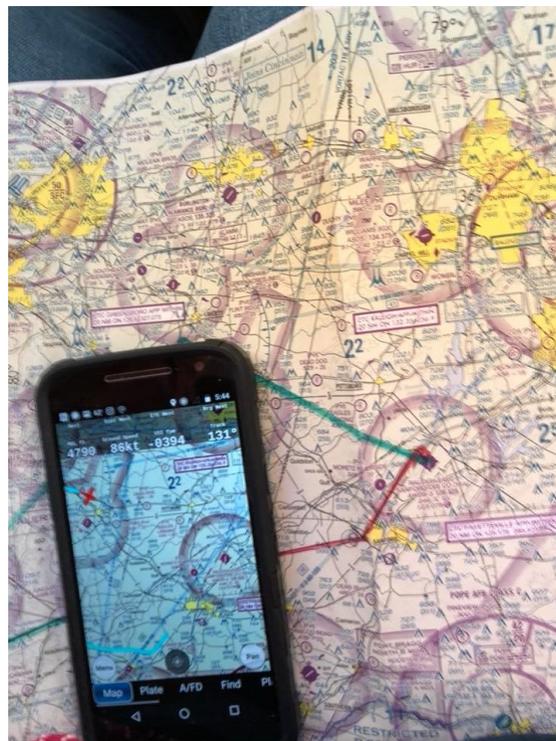
I was taking off Raleigh Executive Jetport, heading out for my 150-nautical mile cross-country. I was going to at least three airports and doing three takeoffs and landings at a towered airport. I was flying Cessna 69012, a 152. I had planned the whole trip and my flight instructor had looked the paperwork all over and talked to me about the flight.

I got off the ground and turned to my heading and started checking my times and points on my sectional. The plan was to fly to Richmond County (KRCZ), fuel the airplane, fly to Anson County – Jeff Cloud Field (KAFP), then on to Stanly County (KVUJ) where I would do three takeoffs and landing to complete that part of my training. Then I would fly to Siler City (5W8—this was in 2013, before the change to KSCR), do a touch-and-go, and then go back to Raleigh Executive.

All went well; I fueled up and took off from Stanly County. The headwind I had experienced flying to

Richmond County had increased and was a crosswind blowing me north. As a student I had not experienced this. I checked my time and looked for my planned checkpoint on the sectional. I did not find the checkpoint, so I radioed the Charlotte TRACON, and was going to ask for flight following, no answer. I looked for the VOR radial from Liberty to start getting a cross radial from Greensboro VOR.

I tried Charlotte again for the third time. A voice called Cessna 69012, it was a Delta Air Lines pilot saying he would relay, Charlotte could not hear me. Great, someone is going to help me. He relayed and told me to squawk 4635. I changed from 1200 to 4635. He said be sure to ident. I pushed the ident button. I replied, 4635 Ident. He said they could not see me. He asked for altitude. I told him 3500 feet MSL. He said climb and see if they can see you. I climbed to 4500, hoping that would help. He asked where I had departed and where was I trying to go? I gave him the airport designators for my de-



parture, VUJ and destination of 5W8. The airline pilot said Charlotte wants to turn you over to Greensboro. The Delta pilot gave me the frequency and said, “I will switch with you.”

I switched to Greensboro and listened. I heard no talking, so I called. I received flight following and the Delta pilot said good luck.

I flew with new directions on to 5W8 and landed. I took right back off and called Greensboro again and asked for flight following to TTA. I also went back to my plan and used my sectional and plan.

I was 30 minutes late returning to the airport. I apologized to the next pilot for being late and said I got off course. The flight was over, but the adventure was just starting, and I learned so much on that cross-country. It became a turning point in my training. Thanks to the radio help I received that day, I became less fearful of getting lost.



## Scheer continued...

relates with aviation safety. And the lack thereof. I have recently reviewed an Air Safety Institute study of accidents during flight instruction, covering the years 2002-2011 and a joint report by Liberty University and the AOPA Flight Safety Foundation on fatal accidents years 2000 through 2015 in the course of flight training.

To summarize these statistics, flight training itself is relatively safe in comparison to other flight segments, although the total number of accidents is comparable to general aviation and of course far lower than commercial aviation for reasons we understand – better training, more currency, better equipment, tighter regulation, crew operations, and so on -- flight training is distinguished by a relatively low percentage of fatal accidents. Most flight training accidents are what we might call fender benders, airplanes bent in the course of ham-fisted landings. The serious flight training accidents are primarily loss of control in flight and, to a lesser degree, midair collisions, with a smattering of all of the other reasons people misuse airplanes.

The question then becomes, what contributes to aviation accidents in general? We know that safety correlates with recent time and time in type. And it correlates with what I will call experience in “type of operation.” The first solo flight; the first solo cross country; the first venture into IMC, the first long IFR cross country involving personal or business travel, attempts to meet a schedule, the social pressures to complete a flight that we would otherwise recognize as hazardous. A review of accidents and incidents in the club’s history fall nicely in line with these known risks. A pilot wraps a Warrior around a tree on her first flight into a turf field. A pilot attempts his first night landing in a crosswind on an unfamiliar runway –

bent prop and engine tear down result. A pilot makes his first long IFR vacation trip and runs out of fuel in low IFR on the return. All pilots attempting a flight new and unfamiliar in some way.

Here’s the thing. We are all that pilot. Most of us fly only occasionally. (Low recent time.) Most of us fly airplanes in which we have relatively little experience. (Low time in type.) And most of us are constantly expanding our horizons, taking on longer flights, or instrument flights,



*A view from inside N2114F, the club’s newest Piper Warrior, purchased in 2017. Photo by David Fellerath*

or flights of a sort new to us (new types of operation.)

We learn to fly in a 152 perhaps. Having achieved our certificate in an airplane that is now familiar to us, we move up to a Skyhawk or a Warrior, letting go that time in type experience known to predict safety. Then, having become an experienced VFR pilot, we encourage each other to acquire an instrument rating. Now we are an inexperienced instrument pilot. Then we think about transitioning to the Mooney and so we are now once again low time in type in an airplane just fast enough and with enough range to speed us into trouble. And so on.

We are continually that pilot who is low recent time, low time in type, and low time and little experience in our type of operation. This is what we do. And it is a known hazard.

And yet, we have a good safety record. How? By sustaining a culture of safety. There is no more powerful impetus to safety than a culture that teaches safety, respects safety, and admires safety. We teach safety as part of every topic in our ground schools. We write SOPs and Flight Standards that are a clear

statement of our commitment to safety. We engage flight instructors who mentor all of us and set examples of good judgment. We seek and are fortunate to have maintenance personnel who refuse to compromise the safety of the fleet – and who take time to educate us about the airplanes we fly. We respect the judgment of our pilots and trust them to make the wise decision. If a pilot is late returning an airplane because of weather, we are grateful for his caution. We sponsor and promote

safety seminars for all levels of pilots. Our instructors teach to a high standard and are never impatient to solo a student. And, most important of all, we all, from our club officers to our newest members, buy into the idea that we do something – flying airplanes – that is inherently risky but can be done carefully and safely if we all, at every level and every day, support this belief and act in ways small and large to support safety. This is known as an SMS, Safety Management System. It is a well-known and highly prized concept in business aviation these days – and we have been doing it for years.

## **Cleared for departure: Outgoing board president reflects on two decades at WCFC**

**By Paul Wilder**

After we spent much of the day at the beach on Oak Island, we had a late lunch. Then, after topping off the courtesy car with gas, we returned it to the front desk at Cape Fear Regional Airport. While I did the preflight, one of my best friends from New England was reflecting on the circuitous travel from Vermont down through various states on his way to North Carolina with his recently graduated daughter.

However, it wasn't until later, during picture sharing and conversations with his wife/her mom, when I reflected on all that had truly transpired that day.

The evening before, I planned a flight for them to the beach because their daughter wanted to see the ocean before going back to Vermont. So, we made that flight down to the beach and back and...it was amazing! It wasn't the weather or the specific flight that was amazing, it was the fact that we could make such a flight. Because, who gets to do this kind of stuff? How many people can, on short notice, buzz down to the ocean from the Triangle area in less than an hour, get a free car, spend much of the day there, and buzz back in time for dinner?

Similarly, one time I was down in Charleston with a Mooney on a five-day vacation. As planned, my daughter had a weekend soccer game in Durham which I was coaching (assistant coaches were the known backup plan). We flew up for the game, and then we buzzed back to Charleston late afternoon. What would have been 10 hours of round-trip driving was reduced to a little over two hours of flying, thus making the whole thing possible. That is extraordinary... (more on amazing flying later).

Having flown with quite a few different aviation organizations since getting my solo license at 16, the opportunities provided by our flying club, in terms of affordability, reservation duration, aviation education, and camaraderie are truly unparalleled.

2019 was my 20th year in the Chapel Hill/Wings of Carolina Flying Club

Our club/we, have come a long way since I was a new member, offering to help former club member Rob Beckers change the oil, clean the plugs, etc. While exposed to the North Carolina summer heat, shielded from the sun only by a shabby tin-roofed lean-to at the Chapel Hill Airport, Rob and I did the "50-hour maintenance" on a 152. Certainly, I had peeked under the cowl of an aircraft before but this was the first time I really started learning about an aircraft engine beyond the theoretical. Since then my powerplant knowledge has grown exponentially through the club, making me a much better pilot (and even as I write this I just learned something new and useful from Ryan about the 172's).

It was late summer of 2001 when we moved from Chapel Hill to Sanford, with some media fanfare. Since the day was IMC and I was one of a handful that was instrument current (probably since I had passed my check ride earlier that year), I helped with

"moving day" by flying a Warrior from our fleet down to the brand new Lee County Airport, KTTA.

About a month after our move, 9/11 happened. Everyone knows the heartbreaking loss of life, destruction of property, and everything else that came with that world-changing tragedy. Obviously, the airspace modifications (among other regulatory changes) affected all pilots. Less obvious is that fact that our club flying was shut down for about four weeks as there was a nationwide "no-fly" within 10 miles of a nuclear power plant (the northern part of the KTTA runway fell within that 10 mile radius. Certainly we asked the FAA about a waiver for taking off and even using just the southern half of the airport's runway (which fell outside the 10 mile radius). We even asked to relocate our aircraft to another airport, but all to no avail. We were shut down indefinitely, until the no-fly was lifted. The membership just ate this financial loss as did many other affected organizations during that time.



*Paul Wilder, standing at center with Will Warren, shared his love of flying with visitors to the club on Nov. 9, 2019. Photo by David Fellerath*

However, with the exception of one board and their dramatic financial missteps that nearly tanked the club forever, our leadership has done a decent job with this balance, while tangling with all the other logistical items and responsibilities that crop up throughout the year. Unlike the four forces acting on a plane in flight, the four pillars of the club that keep it in right side up and in good shape are effective leadership, solid instructor corps (with a healthy amount of students), quality maintenance, and supportive membership (who step up to help in all sorts of ways).

Drifting back and thinking more about some of my past flights, they really seem more like aviation adventures instead of just flights. Flying has allowed me to go back and forth from North Carolina to Vermont more times than I can count on my fingers and toes (and usually non-stop). On one evening trip returning from Thanksgiving, over the border of VA and NC I could see cars humming along I-85 but then a couple miles ahead I could see five miles or more of brake lights on stopped cars. While I was glad I was not in that jam, I did wish I could shout down to those cars humming along soon to be stopped, "get off at the next exit". Flying over/past that mess and other experiences make me think of the High Flight sonnet by John Gillespie Magee Jr.

"Oh! I have slipped the surly bonds of Earth

And danced the skies on laughter-silvered wings;

Sunward I've climbed and joined the tumbling mirth of sun-split clouds,

— and done a hundred things You have not dreamed of — wheeled and soared and swung

High in the sunlit silence. Hov'ring there, I've chased the shouting wind along, and flung

My eager craft through footless halls of air..."

Like some of you, I have landed at Dulles, touched down on Tangier Island, flown into Canada (Halifax, NS),

landed at Chicago Meigs Field (before Mayor Daley tore up the runway), and made a quick day trip out to Ocracoke or somewhere else on the Outer Banks. Before the SFRA, I flew the VFR corridor right over the heart of Washington, DC. Even after the SFRA, I once got routed right over Baltimore (BWI) direct to KTTA (it was a slow night for ATC). At Westchester County, I once rented a Socata Tobago and flew down the Hudson. On a different flight from Westchester (in a club Mooney), I flew down the East River at sunrise at about 2000'. Once I even



landed on an airstrip on a frozen lake. And over the course of all this flying, I have taken family, friends, and even some strangers (Young Eagles) for lots and lots of plane rides to share this amazing privilege.

And I do consider flying a privilege. Maybe, since there are laws for it, flying is not a privilege but a right; I am not sure. But I am sure that flying Wings of Carolina planes is indeed a privilege. And sure, I could have dropped the cash on an inexpensive plane for outright personal ownership. But as most of you know, real aircraft operating costs are astronomical, especially for all the times when I am not flying (as having a plane languish while not being flown make it expensive and unsafe). As such I can unreservedly state that, I could not operate a plane as inexpensively as I do with the club and therefore get more flying in. :-)

Going forward, so that all the club benefits can continue for me, for you, and for anyone willing to accept the significant responsibilities that come with membership in the Wings of Carolina, one of the projects I hope to help with is to plan some of the club's future much like we did about 10 years ago, including that meeting at the late Len Felton's house. But since most of our club has been built on and continues to depend on the spirit of volunteerism, the most important part of the club's future is members who recognize that they can make a real difference and that the club is indeed a worthy place for investing their time.

Thank you, those who helped make 2019 a stellar year and thank you in advance to those who will help make 2020 as good or better.

*Paul Wilder has served on the Wings of Carolina board as a member at large, secretary, treasurer, vice president, and club president (in 2006, 2007, and 2019). In addition to serving on the board, he has helped with many projects like the buying and selling of various club aircraft. He built the walkway of pavers between our building and the tarmac and helped paint the hangar floor and upfit the building. He has often helped with marketing and organized the club's largest event with our building dedication/hangar opening/fly-in, which was attended by nearly 1,000 people, including the Army National Guard (who brought a helicopter), Duke Life Flight, UNC Life Flight, Deep River Emergency Services, local law enforcement, EAA, AOPA, Civil Air Patrol, and other aviation and community organizations. He continues volunteering for the club in 2020 by tracking down aircraft expenses/costs by model and future planning for the club.*

## Tips for cold weather

**By Ryan Evans,  
Director of Maintenance**

Improper use of an aircraft in cold temperatures can cause engine damage, loss of fuel, and CO poisoning.

Let's address the first issue, engine damage. If you do not have your engine and oil system warmed up to 40 degrees Fahrenheit, the oil needed for internal bearing lubrication doesn't happen right away and causes the bearings to wear prematurely. Just a single cold start-up can be like running your engine for 500 hours.

The other issue to a cold engine is that it is hard starting. A good rule of thumb is this: Try three times then rest for 5 minutes. This will save our starter from overheating and failing prematurely.

To correct both of these issues, preheat your engine. But also think about how cold it really is. For example, when you get out to the ramp at 9

a.m. and it is 40 degrees, it doesn't mean your engine is at 40 degrees. It could have been in 20-degree weather all night. With our preheater at the club, 10 to 15 minutes will suffice. If we have had a truly frigid night, then leave the heater on for longer.

A second issue with cold temperature operations is loss of fuel to the engine. This problem comes up when there is water in your fuel system. Water can come from fuel cap seals that have shrunk in the cold and rain. It could be from condensation forming in the fuel tanks. If water is in your system, there are a couple ways to check. First, sump fuel and ensure fuel is coming out. If nothing comes out at all, then more thalikelly water is frozen inside the tank. Water can also find

its way to the fuel selector. Be sure you have actuated it in all directions on your preflight.

The final issue is carbon monoxide poisoning. The heat you receive inside the cabin is from ram air blowing through a metal shroud around the muffler. If there is a crack in your muffler and you turn on your heater and begin to get a headache or don't feel quite right, close the vent, open a fresh air vent, then land. The maintenance staff checks this system at every 50-hour maintenance interval and every annual. There should also be a CO detector in your aircraft. If you do not see one, let the maintenance staff know and we will get you one.

Winter 2020

## *Future fliers at the club open house on Nov. 9, 2019*



## Ground School

### Private Pilot Ground School

May 18- - July 16 (Mondays 7-10pm)

### Commercial Pilot Ground School

Sept.14—Nov 30 (Mondays 7-10pm)

## Events Calendar

Keep up with club events by integrating the WCFC Google calendars into your personal calendar if you use a Google account. If you don't have a Google account, you can save it as a bookmark.

Here is a shortcut link:

<http://tinyurl.com/wingscalendar>

Thanks to all who submitted articles and photos this summer.

Send your story ideas for the winter issue to: david.fellerath@gmail.com

Certifications

9/17 Vic Almeyda (solo)  
9/18 Greg Buckner — Private  
9/19 Greg Howes (solo) (Frye)  
9/20 Jonathan Toppins — Private (Taylor)  
9/27 Will Warren — Commercial  
10/2 Rex Moody (solo) (Frye)  
10/13 Alanna Howard (solo) (Thomas)  
10/15 Will Colborn — Commercial (Schwartzmier)  
10/18 Patrick Desiato — Private (Taylor)  
11/1-2 Dyson Hepting (solos)  
11/3 Tristan Gardner (solo) (Schwartzmier)  
11/4 Hailemichael Abraham (solo) (Taylor)  
11/6 Alex Zajda (solo)  
11/8 Will Warren — Multi-engine  
11/12 Will Colborn — Multi-engine  
11/20 Paul Van Wagner — Commercial  
12/3 Zackary Bowen — Private (Frye)  
12/6 Jennifer Davis — Instrument (Babcock)  
12/21 Zach Cheramie (solo)  
12/26 Ryan Evans — Private (Frye)  
1/20 Alex Zaterka — Private (Schwartzmier)  
1/21 Greg Stillwell — Instrument  
1/23 Joe Hudson — CFI  
2/4 Ken Williams — CFI

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