

**Club Meetings**

Board Of Trustees:  
7:00 PM 5/3/18  
Club House



General Meeting:  
9:00 AM 5/19/18  
N12 CAP Building

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northeast weather...)

**Page 6** be until I retire that I will be able to more fully engage in my flying avocation. I'm not  
Test Answers

Armed Forces Day  
recently joined the aviation simulator community. I could do this because while the days  
Mechanics  
multi-million dollar high fidelity full motion simulators are still with us, this sector  
CPI Profiles  
the availability of very affordable realistic systems (albeit not full motion).

Maintenance Flights  
decades, a huge community (pilots and non-pilot advocates of all things aviation) has developed. There are now hundreds and  
hundreds of thousands of people from around the world actively contributing to this field. There are even very realistic virtual  
ATC systems. As a result, it wasn't long before this large potential market enticed a wide variety of companies and associations  
to offer manifold products and services to it. The result is that people of almost any means can take advantage of this  
descending trend of software and hardware costs.

Last year it became clear to me that I could leverage this infrastructure to augment my currency, training and confidence. One way or the other, I would have a simulator. Having decided, the question became how I would do it and how much it would cost me.

Misfire--Being an engineering type, I established a few high level foundational requirements. The system would:

1. Be primarily used for training.
2. Need to be full IFR (Steam and Glass Panel).
3. Have a significant market share and an active user community.
4. Need to deliver an accurate, realistic experience (Force Feedback control)

With these needs identified, I began an internet search for complete commercially available systems. Likely you are already familiar with many of the vendors in this space. I identified several. With some additional work, I was able to narrow my candidates down to a couple. With further review I was getting pretty serious about just one - Redbird.

**Rub & Scrub!**

The spring 2018 Rub & Scrub is set for the May 19th General Members meeting! There will not only be plenty of cleaning supplies awaiting you but also hot dogs, hamburgers and things for the kids to do. So, get out those work cloths, load the family in the car and come on over!

Editorial Staff: Charles Burke,  
Dave Pathe, Karen Barbagelata

**McGuire Air Show**

As noted in the April issue, the Power in the Pines air show will be back and open for you on May 5 and 6 at McGuire Air Force Base. This amazing event will once again have numerous exhibits from various military units, a spectacular air show and aircraft--lots and lots of aircraft including one of ours. So mark your calendars and plan on getting there early... Don't forget to wear your ID badge and your MAFC polo shirt!

**Home Brew SIM by Chris Kuelzow**

I am a long time aviation enthusiast, but a low time, VFR rated pilot. Life (kids, job, finances, frustration -

of corporate owned

has become layered with

Specifically, over the last couple of

decades, a huge community (pilots and non-pilot advocates of all things aviation) has developed. There are now hundreds and

hundreds of thousands of people from around the world actively contributing to this field. There are even very realistic virtual

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The control bench



The system when fired up

I was initially attracted to Redbird's offerings since they offer a complete line of attractive (in price and feature set) products. Also, they seemed to have the support of several organizations I respect. I was almost ready to purchase their TD2. While it represented a significant investment (the equivalent of many *real* flight hours), initial reviews seemed to generally support its fitness for my needs.

However, with that sort of money on the line, I made a deliberate effort to check their on-line reviews. I also secured any opinions from existing owners that I could identify and reach. Unfortunately, the information I gathered led to some disappointment. There appear to be requirement related deficiencies in the unit's controls and perhaps build quality. Finally when I confronted Redbird about this, they were unable to assuage my concerns. It was clear that I would not be satisfied with that unit. The buy option for me turned into a dead end.

#### A Change in Approach

Being unwilling to spend money on a complete package that I would not ultimately be satisfied with over the long haul, I considered an alternative approach.

Specifically, the engineer in me said that if I took my time and investigated who had been doing what, I too would be able to identify all hardware and software (in the best combination for the best price). That approach had the added benefit of allowing many of the purchases to be spread out over time. So I could buy better components and with time build a more capable simulator.

So step by step, purchase by purchase I have arrived at this current configuration:

#### Main Hardware:

- (1) Samsung UN49KS8500 Curved 49-Inch 4K Ultra HD Smart LED TV (2016 Model)
- (2) Dell UltraSharp U2715H 27-Inch Screen LED-Lit Monitor
- (1) Dell S2240T 21.5-Inch Touch Screen LED-lit Monitor
- (2) MINIX NEO Z83-4, Intel Cherry Trail Fanless Mini PC Windows 10 (64-bit)
- (1) Computer system based on:
  - Intel Boxed Core i7-6850K Processor (15M Cache, up to 3.80 GHz) FC-LGA14A 3.6 6 BX80671I76850K
  - ASUS LGA2011 5Way Optimization SafeSlot X99 EATX Motherboard (Rampage V Edition 10)
  - EVGA GeForce GTX 1080 HYBRID GAMING, 8GB GDDR5X, LED, All-In-One Water-cooling with 10CM FAN, DX12 OSD Support (PXOC) Graphics Card 08G-P4-6188-KR
- (1) BRUNNER CLS-B Active Force Feedback Yoke
- (1) Logitech G Saitek PRO Flight Throttle Quadrant
- (1) Logitech G Saitek Pro Flight Switch Panel
- (1) Emuteq G1000 PFD/MFD and Audio Panel
- (1) MFG Crosswind rudder pedal set
- (1) IR Tracker

*Continued*

**Main Software:**

- Lockheed Martin Prepar3D
- Flight1Tech Garmin G1000 Student Simulator Pro
- SPAD.neXt FSX/PREPAR3D Edition

As it is my build, I am in control of its components and configuration. So, I am able to add to or modify them as required. For example, at some point I plan to upgrade to a Brunner force feedback rudder pedal set.

All in all this has turned out to be a very interesting, challenging and rewarding effort. I am very satisfied with my decision to design and build the system myself. It represents a significant investment in money and time. However, it fully meets my requirements and will return value for years to come. No matter what, I intend to continue to lean on it during and after the pursuit of an instrument rating.

The best news is that the source of my frustration has diminished and changed. No longer does the correct combination of plane access, good weather and enough time and money get in my way.

I would be very happy to share whatever I have learned with our membership. Feel free to contact me.

**Test #4**

What documents are student pilots required to carry while flying solo? (See page 6 for answers)

**Maintenance Corner by Dan Coles**

N66977-C152 This aircraft was flown to the interior shops in Pennsylvania. Advantage interior's price is \$4,695.00. At the time of writing this the aircraft is scheduled to be taken to BP Air for a 50 hour service. While there we will get a price to replace the broken plastic on the instrument panel and any other interior plastic parts that need to be replaced prior to having the new interior installed.



We received a letter from the FAA's Michael A. Smith ADS B focus team. In his letter he says that the FAA has monitored flights by this aircraft in which the installed ADS B system failed to comply with equipment performance requirements specified in CFR 91.227. I have spoken with Mr. Smith about the issue along with Carl at Three Crown Avionics. Mr. Smith thinks a software update is needed to correct the problem. Carl is checking with Garmin to get some answers. Carl did say to make sure the transponder is set to "Altitude" prior to taking off.

N67818 C152 There have been no squawks reported for this aircraft have other than some slight static in the radios.

N4287Q-C172-L No maintenance has been performed on this aircraft since the last report.

N93KK C172-M There has been a report a flat spot on the left tire. Landing with your feet on the brakes or with too much speed requiring heavy braking to stop is usually the cause. If this is you please make an adjustment or get in touch with your favorite flight instructor for some help. As a man much wiser than I said "A tire is good for a thousand good landings or one bad one."

N268BG-PA28-181 No maintenance has been performed on this aircraft since the last report.

N55804-PA28-200 R No maintenance has been performed on this aircraft since the last report.

N61WT A report was received that during a practice power off stall the AHARS unit went off line for less than 30 seconds. The aircraft was taken to Ocean Aire where the AHARS unit was checked to make sure it was secure in the mounting tray. All of the electrical cables connecting to the AHARS unit were also inspected to make sure they were tight. We are continuing to monitor the situation.

**\$100 Hamburger** (A short ride to start off the new season) by Nick Billows and Charles Burke

With the start of a new flying season, it was decided to highlight a restaurant that is relatively close to N12 because it would afford you with an opportunity to dust off your flying skills while staying in your own backyard. That said, it was decided to revisit Pizza "n" Pasta located just off of runway 25 at 47N (Central Jersey). While the restaurant is not located on the airport grounds, it is a short walk from the FBO. Just head north to the cemetery then turn left.

We arrived about 12:15, but having been open since 11:30 AM, there was a fair number of people in the dining area enjoying lunch. We were quickly seated and were presented with their recently modified menu. Having eaten here a number of times before, we elected to try two new items, the Grilled Chicken Caesar Wrap and the Sausage, Peppers & Onion sub. Jumping ahead to the end of the meal, our plates were empty and we were both feeling pleased for selecting these items. The topper was a bill that was so small as to be almost embarrassing! So set your compass to 338° and in about 20 minutes you will be there.

**Airline Prep Series: Deciding if Becoming an Airline Pilot is for You** by Matt D'Angelo

Some of us have known what we want to do with our lives for as long as we can remember. For those of you who have known and are doing it...congratulations! You are very likely on a path to happiness and success!

I am very fortunate to have been interested in airplanes and flying for as long as I can remember. For this, I thank my parents for taking my brother and me to watch planes take off and land at Westchester County Airport. Also, thank you George Lucas for creating and releasing Star Wars when I was four years old! I would emulate Han Solo flying the Millennium Falcon, always wondering how amazing it would be to be a pilot.

While I always knew I wanted to fly, I didn't initially know exactly what I wanted to do with flying. I just wanted to get up there and fly! Maybe you've felt this, as well. It really can and should be that simple, especially when you're just beginning to fly! Once I decided how much I loved flying, I was mostly attracted to seaplanes and bush flying - low, slow and romantic. I loved the beauty, access and self-reliance of these types of flying.

After reading a faded, musty first edition of "Fate is the Hunter" by Ernest K. Gann in 1997, while I was just beginning to learn to fly, I started thinking about potentially flying the line (flying for the airlines) someday. Because of Gann's talent as a writer, however, my perception of flying the line was more old school "Pan Am" than what we think of as modern day airline flying. As often happens, my mind was stuck in one of my three favorite decades...the 50s!

So, the airlines were always in the back of my mind, but never seemed as rewarding as where I decided to take my flying career - instructing full-time. Always open-minded to new adventures and opportunities, over the years I balanced the pros and cons of various flying careers, and couldn't think of a better set up than instructing. If you love working with people and teaching as much as I do, it's a wonderful, rewarding career!

In September of last year, I was refueling at an FBO in the midwest and received a text from a friend and airline pilot mentor, asking if I wanted to help with a non-profit called Pilots for Kids over the holidays. I responded that I would love to help and thought about the bigger picture. That single text ended up tipping the pro and con balance in favor of the airlines and was the impetus for my career change. Specifically, I realized the time off and compensation I would enjoy with the airlines would give me more ability to give back to the community and mentor future aviators - even more than I could do while instructing full-time. This line of thought opened up a conversation with my wife, Jean, about making a major career change and what it would look like for our family. By October, we had decided it was a "go" and here we are!

Here I want to summarize some of the pros and cons of airline flying and the lifestyle associated with working for the airlines. While this discussion focuses only on being an airline pilot, there are many other rewarding career options which have similar pros and cons. For example, Flight Attendants, Gate Agents, Customer Service Representatives and Baggage Handlers. Don't rule these out if you want to enjoy many of the perks and understand some of the downsides of airline life!

Pros: 1. Sign-on bonuses. 2. Retention bonuses. 3. Excellent compensation. 4. Excellent health and retirement benefits. 5. Growth potential. 6. Huge responsibility. 7. Working with a team. 8. Working with traveling customers. 9. Flying "cool" aircraft 10. Lots of days off 11. Lots of learning 12. Travel benefits (This is my favorite benefit and privilege of the airlines - free, unlimited, worldwide standby travel for you, your significant other, your parents or in-laws and your kids! Additional passes allotted for other family members and friends.).

*Continued*

Cons: 1. Huge responsibility (I consider this a pro, but it can be perceived as a con, as well).  
 2. Working with traveling customers (I'm looking forward to this and also consider this a pro, but it can also be perceived as a con).  
 3. Away from home often (Make sure you, your significant other and your kids understand and are willing to adapt to this lifestyle. For Jean & I, the days off balance this.). 4. Mandatory retirement at age 65. (This will most likely increase to 67 or more in next few years.). 5. Often irregular and long hours. 6. First Class medical requirement . 7. Need to get to hub (A huge con if you live more than two hours from your crew base, or if you're commuting via airplane to your base. According to my mentors, commuting via airplane to your base can be one of the most stressful and difficult aspects of the airlines, so try and live within two hours of your base and drive there). 8. Dealing with major airports often. 9. Potential for furlough. 10. Very long and expensive process which requires a ton of focus. (While the airlines are hiring, it's still not an easy path to get there and never will be. What fun would it be if it were easy?!)

One of the great things about the airlines is most of the pros become even better and most of the cons become less negative as you gain seniority! For example, as you gain seniority, your compensation will increase and you will have even more days off. Because you will have higher priority over the schedule you choose (called "bidding"), you won't be away from home as often and your hours will be more predictable.

You could make an excellent career staying with the regional airlines (such as Piedmont) if you decide that's a better fit for you. The benefit to staying with the regionals over going to the major airlines (such as American) is your seniority will continue to grow and you can bid for the best trips and schedules. Currently with the airline I'm flying with, Piedmont, those top schedules offer 16 days off per month. The downside to staying with the regionals is the pay scale is significantly less than the majors and you won't have the opportunity to fly long-haul routes or "across the pond" international flights. For many of us, this is a better fit, so keep your options open! A regional airline career supplemented with other entrepreneurial interests or other opportunities within the airline, such as ground and sim instructor, check airman or chief instructor, can be a rewarding and fulfilling career option.

If you decide to fly for the majors, there will be a few times during your journey where your seniority will take a dip, such as when you move from Captain with the regionals to First Officer with the majors. So, plan on a few years at that point that schedules won't be ideal. You'll be bidding from the bottom again, but that doesn't last long. Also, your compensation at that time will be significantly higher - normally about double where you started your airline career with the regionals.

I decided later in life to transition from instructing full time to flying for the airlines. My goal is to fly for American Airlines in about five years, but I'm in no rush. I'm learning a ton, having fun and am enjoying the journey! Jean and I are extremely thankful and excited to have the opportunity and privilege to travel the world together and we're happy my parents can do the same. Those perks alone make any other downsides well worth it!

If you're on the fence about becoming an airline pilot, please reach out with questions. I would be happy to help! Never underestimate the value of mentors!

One more thing...if you don't think you can do it, or the airlines seem overwhelming, let me assure you - you can! I didn't have the confidence to think I could be an airline pilot until I completed my indoctrination class two weeks ago. I didn't know how any of it worked...schedules, uniforms, crew bases, unions, terminals, push-backs, jets...I knew very little going in and still have 99% of the learning ahead of me. After that first class and working with my mentors and classmates, I gained confidence that I can do this...and you can too!

It's a wonderful time to become an airline pilot! Why not you? Next time, we'll compare airline and charter careers.

### **Club Considering an additional aircraft by Art Templeton**

As the membership has increased in the past few years, the need for additional aircraft has grown in direct proportion. However, the quest to be fiscally prudent also must be carefully considered in this equation. A potential solution to this problem was recently discovered and it was thought that the entire membership should play a role in the decision making process. Therefore you are being asked to review this informative video before voicing an opinion.

<https://www.youtube.com/watch?v=4XPbBf2fvog>



### **AOPA Airport Ripoff List**

In terms of the price of a quick-turn stop, probably the worst offender on the Watch List is Atlantic City, New Jersey. A Cessna 182T would see a \$10 (airport imposed) landing fee, along with FBO fees including a \$5 infrastructure fee, and a \$44.07 handling fee that could be waived with purchase of 10 gallons of \$5.67 full-service-only avgas.

Not surprisingly, Atlantic City also experienced the steepest decline in turboprop and jet traffic of all Watch List airports over the past 10 years.

**Answers to the test:**

To fly solo, the student must have at least a Third Class Medical Certificate / Student Pilot Certificate that has been endorsed by his Certified Flying Instructor. In addition, the student must have a photo ID

**Armed Forces Day Veteran LZ-64 Fly-In Monmouth Executive Airport (KBLM)**

In preparation of PTSD Awareness month in June 2018, the Monmouth Executive Airport (KBLM) – Hangar LZ 64, and the generous volunteer pilots from airfields in the tri state area will support an Armed Forces Day Celebration to honor veterans and increase PTSD awareness.

Veterans will have an opportunity to experience flying in small aircraft and helicopters for FREE from participating airfields and gather at Monmouth Executive Airport for an Armed Forces Day Celebration. The Fly-IN event is Armed Forces Day, Saturday, 19 May, 2018 10:00am - 7:00 pm at Monmouth Executive Airport (KBLM). Hangar LZ 64 will feature live entertainment by local music groups, family friendly activities, military memorabilia, aviation static ground displays and learning booths that offer free outdoor programs for vets and a patriotic BBQ. Veterans can enjoy short flights to witness a "Welcome Home" airfield ground display.

According to event organizer Richard Thomas, "This is an effort to reconnect veterans with military friends at a centralized location utilizing private aviation pilots and provide a fun Armed Forces Day Celebration for veterans struggling with PTSD. The main goal is to gather veterans who want to spend quality time together. The Armed Forces Day Celebration Fly-In is a great way for veterans to experience the thrill of flying in small aircraft and brings veterans together in the spirit of camaraderie and support to those dealing with PTSD."

**Why We Need Good Mechanics**

British Airways Flight 5390 was a scheduled passenger flight operated by British Airways between Birmingham Airport in England and Málaga Airport in Spain. On 10 June 1990 an improperly installed panel of the windscreens failed, at 17,400 feet (5,300 m), blowing the plane's captain, Tim Lancaster, halfway out of the aircraft.

This video depicts most of the events using computer graphics but it still takes your breath away.

<https://www.youtube.com/embed/pOcm6E10anI>

**CFI Profiles**

As the number of MAFC CFIs grows, there has been some confusion as to what services each individual offers. So that you can have a handy guide, you will find a separate document that was e-mailed along with this newsletter. This guide contains a compilation of all current CFIs and what they have to offer.

**Maintenance & Ferry Flight Rates** by Bob Tozzi

Every now and then, MAFC members are asked to help the club out by ferrying one of our aircraft to a maintenance facility at another airport so that work can be performed on it. This allows the club members an opportunity to not only help the Maintenance Officers get planes repaired, or meet annual date requirements, but also give the member some flying time at a reduced cost. However, there has been some confusion at times as what to do by the member when and at the end of such flights.

When a plane is being transported to a maintenance facility, the flight is categorized as a Ferry Flight, not a Maintenance Flight. Maintenance Flights are only flown by the A & P mechanic performing the work. Therefore, when you check back in after the flight, only select Ferry Flight.

Secondly, after you deliver the plane at the maintenance facility, you must close out your flight on Flight Circle when you return to Lakewood. This means taking down the Hobbs and Tach readings before you leave the maintenance airport and entering them in Flight Circle. You will then see the amount that you owe and must pay for.

Finally, when picking up a plane at a maintenance facility after the work has been completed, you should note the hours on the Hobbs and Tach at the start of the flight. Also check that they give you the log book. You will need these numbers to figure out how much you need to pay for the Ferry flight back to Lakewood. If there is a discrepancy with the numbers from what is currently in Flight Circle, example the A&P flew the plane for testing, you can let Dave Truilli or myself know and we can adjust your account.

**Takeoffs are optional but landings are mandatory**