



**June 2020 Newsletter**  
Knoxville TN AMA #594  
Editor..Mike Catlin  
[www.kcrctn.com](http://www.kcrctn.com)  
Webmaster..Jeff Prosisie

**2020 Elected Officers**  
President.....Frank Allemand  
Vice president.....John Basalone  
Secretary.....Richard Love  
Treasurer .....Mike Catlin

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Jeff Prosisie  
Allan Valeo  
Ed Dumas

**Safety Officer**

Jim Maines

PRESIDENTS CORNER



Throughout May about twenty of us “regulars” have continued flying at the KCRC field and have been relaxing, socializing, and having a lot of fun.

After Knox County relaxed some of the coronavirus restrictions in conjunction with Phase 1, we made two changes at the field.

- The gate is being left open, and visitors are being allowed and encouraged. In fact we have even recruited about 4 or 5 new people in the last month.
- A vacant flight stand is no longer required between all individuals.

We continue to follow CDC guidelines and try to maintain the recommended 6 feet of social distance. In the case of flight stands being closer than 6 feet, members are not standing at or using two adjacent stands at the same time.

Most club members have been good at maintaining social distance about 90% of the time, but we all need to keep reminding each other to do even better. At the gate entrance John Basalone has put up a reminder sign for everyone that reads: CONONAVIRUS: FOLLOW CDC GUIDELINES.

Regarding other club news, there are a few items I would like to briefly mention.

First, should we have a club meeting in June? Many other clubs have cancelled their events, but are keeping their fields open and also having regular meetings. Since our June meeting would be held at the field anyway, we can set up chairs on the runway and have adequate social distancing. The gate can be open for members to drive through, so no need to touch the lock and bother with sanitizer. Everyone can bring their own chair, so there would be no contact with common surfaces. Properly done, I think it could be about as safe as safe can be. Please let me know what you think and whether or not you would attend, either by replying to me by email ([frankallemand@charter.net](mailto:frankallemand@charter.net)) or speaking with me when you are out at the field.

The runway has rapidly deteriorated since the \$3600 project was completed last fall. At that time the runway was coated with a thin protective layer, but the cracks were not filled and now are getting bigger, plus new areas are cracking as well. There are some places that must be avoided on takeoff and landing, or the plane may do a big bounce and possibly get damaged. This seems to happen more with planes that have small wheels, but is also happening with larger wheel planes when moving fast. John Basalone is planning to get a small amount of professional grade crack and runway repair material called “mastic blacktop patch.” We will try it out on the worst spots as a test. If it works as hoped, we will ask the membership to vote on authorizing the funds needed. Please also see John’s FIELD REPORT providing further details.

Jeff Prorise has agreed to join the Board for the rest of the year to replace Rick Thompson, who resigned his Board seat. Jeff has many years of experience on the Board, and we are very happy to welcome him. Jeff has been out at the field several times recently, and is particularly good at helping out visitors and encouraging them to become members.

John Basalone, Phil Spelt, and I have decided to postpone our meeting with the Parks and Recreation people until the coronavirus

situation significantly improves. We don’t think it would be a very good meeting if we have to keep our masks on the entire time.

And lastly, new signs are being put up at the field showing the simplified KCRC rules and courtesies approved last February, and the AMA safety code rules for general and FPV flying. Please take a look at them when you are out at the field.

Because there is so much contradictory information about coronavirus predictions, it is hard to know what the future may bring. However, if things do improve significantly and we can again safely hold events, we want to do something really special in either August or early September. Our thought is to combine a catered first class picnic lunch with both a cub fest and an edf fly all rolled into one. Perhaps we could have one or two edf formation flights in the morning plus an “everyone fly your edf at once” flight right before lunch. In the afternoon we could do then do the “everyone fly your cub at once” flight. Any suggestions for improving our ideas or doing something else would be appreciated.

Thanks very much.

Frank

### **KCRC FIELD REPORT**

- The runway has not lasted six months since the \$ 3600 was spent on it last fall. The cracks and deteriorating asphalt have gotten worse because they were not repaired before they were sealed. It appears like we will now have to invest about \$ 1500 more to repair the runway properly. Our total for runway repair will be just over \$ 5,000 (five thousand dollars).

- Handicap access to the flight line has been changed and will be on the left side of the pavilion between the two no parking signs. This avoids going around the tree and Porte potty, saving 300 feet of driving on grass and over some soft ground which is often wet.
- New rope has been installed at the wood posts in front of where we park our cars. The old rope was badly deteriorated.
- The car track has now been redone. A recurring complaint was our track was not easy to drive on. This has been addressed by giving the track a smaller footprint, making it much easier to see your car, and by widening the entire track to provide more room for maneuvering. Car drivers may now also avoid the harder jumps if desired because there is sufficient room on the side of them. The widening also makes mowing much less difficult. Members with model cars should try it out. If you don't have a model car, buy one and use it when you cannot fly because it's too windy.
- I have treated a lot more fire ant mounds than usual. They are much worse this year; apparently we had a massive invasion.
- Kevin Turner has installed a new professional drone racing course and it really looks good.
- New signs for KCRC rules and courtesies and the AMA safety code are being installed, and the outdated ones removed. We are also moving the "No Visitor Past This Point" signs to allow visitors to be able to sit down on the benches. However, members need to make sure nobody is sitting directly in front of their planes when running their engines.

- I will be making some other further improvements at the pavilion and the Helipad.

EVERYBODY STAY SAFE AND HAVE FUN

John Basalone

## A GREAT PLANE: THE 737 MAX

By Frank Allemand

Yes, you are right to be a little surprised by the headline. Why would anyone claim the 737 Max is a great plane?

Well, this is an RC club, and my comments strictly refer to the model. I will let others make the judgments about Boeing's plane.

I am very impressed with my AL-37 Airliner built by Freewing and sold by Motion RC. With half flaps on takeoff and full flaps on landing, it flies like a dream. The retractable gear is sturdy, and great for absorbing shocks from a bad landing.

The wingspan is 72 inches, and plane is 79 inches long. So it makes a sizeable presence both in the air and on the ground. There are 12 LED lights. The wings are easily removable for transport, and each wing's servos are consolidated to one plug for easy wing on and off.

The plane comes in two schemes: a solid white ready for customizing to your choice of airline or military use, or a finished scheme for Motion RC Airlines. Enough of these have sold that just about every possible paint scheme has already been done.

I chose the President's smaller Air Force One scheme. While the 747 is used on long trips, the smaller version is normally used for shorter trips in the northeast. I was a little surprised when I saw

President Trump flying on the small Air Force One in India last year, but then realized he flew over on the 747 and used the smaller one just for shorter flights within India.

The maiden flight of my 737 at KCRC was uneventful. I did learn that on windy days it is better to remove the winglets, otherwise there are too many complaints from the passengers about turbulence.

Steve Bayless also has an AL37 painted up in Southwest Airlines markings. His maiden at KCRC was successful as well, although a few passengers got minor injuries when it landed on the grass just short of the runway.

And John Basalone has one too. His is not yet built, but he intends to make it the Alaska Airlines Disneyland version, which is a basic blue plane with lots of Disney cartoon characters. His wife, Rosie, suggested that he use the Alaska Airlines version to fly, and also do a Presidential version for display in the living room. Such a good rc wife.

Here are two pictures of my small Air Force One at KCRC, ready for



takeoff.



Here are two pictures of Steve's Southwest Airlines plane, also ready for takeoff.





And this is the Alaska Airline version John is planning.



So if you want your own airliner, they are available plug and play for \$499. And I'd be happy to share some suggestions on how easy it is to paint your choice of livery.

## Top Gun

(Remember, it's only a movie)

Remember the final battle in the movie where Maverick and Iceman battle several enemy aircraft and despite overwhelming odds in a dogfight and return to the carrier victorious?

So do I and it's one of the most inaccurate scenes...

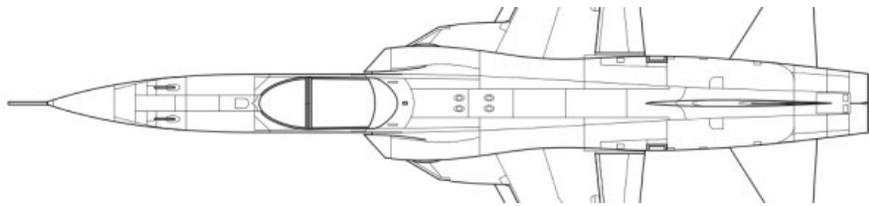


When Top Gun came out in 1986 I had been working at Northrop for almost 10 years. I started working in the F-5 Center and Aft Fuselage design group. I spent time working on the RF-5 "TigerEye" and the F-5G which later was redesignated the F-20. During these years I became familiar with the mission intent of these aircraft and seeing a pair of F-5's battling in a close quarter dogfight with a pair of F-14's was quite humorous.



The F-14 was primarily a beyond visual range fighter as a long range high endurance interceptor to defend carrier battle groups against anti-ship missiles. As such it had a powerful radar (AWG-9 radar) and carried long range AIM-54 Phoenix missiles. With the wings swept it has a speed of Mach 2.4. The powerful radar emissions made it easy to detect at long range making it easy for enemy fighters to bolt before the radar could establish lock.

The F-5 was originally intended as a low cost and low maintenance aircraft for export and the F-5E had larger J85-21 engines for a thrust of 10,000 lb. It also included an AN/APQ-153 radar and 2 M39 cannon. Although not used by the USAF in a combat role it did serve as an effective aggressor aircraft with performance similarities to the Soviet MiG-21. In its role as an aggressor aircraft the simpler F-5 reportedly scored slightly better than a 2:1 kill ratio against the F-14 although for the first three weeks of the test, the F-14s were hopelessly outclassed and demoralized. After adapting to qualities of the F-5 the F-14s did slightly better than breaking even with the F-5s in non-1 v 1 engagements.



The design was one of the first aircraft to utilize the area rule concept where as the area of the aircraft cross section is a smooth transition from front to back. Thus giving the narrow "waist" in the sections containing the wing area. This allowed a cruise speed of Mach .97 and a maximum speed of Mach 1.6 using relatively small engines.

How was the "low tech" F-5 able to compete with the F-14 in air-to-air combat? The F-5's small size made it hard to see at long range and the small size also contributed to its low radar cross section (RCS). The low RCS was not designed in but was a result of having limited panel seams and a very clean fuselage as a drag reduction measure. The largest return is from the front due to its radar dish, non-conductive canopy and engine inlets. The next largest contributor is the vertical fin when seen broad side and from the rear the engine exhausts and turbines provide a significant return. Positioning the aircraft can cause a RADAR directed missile to lose lock at long range.

Where the F-5 really excelled was in maneuverability. With a wingspan of only 26 feet 8 inches and large ailerons versus the F-14's 64 feet wing span and spoilers (at low speeds with high speed rolling driven by differential all flying tail movement) the F-5 could roll into a turn quickly. Another maneuverability advantage was the ability to lose energy and get to a best turn rate speed quickly. Small air brake panels on the underside of the fuselage were very effective as well as providing an upward force to aid in turning. The F-14 air brakes were mounted on the upper and lower surface far aft on the fuselage which were effective but contributed nothing to maneuverability. That the F-5 weighed 4.5 times less than the F-14 also meant that far less energy had to be shed.



It should be noted that the F-5 could enter a turn much faster than the F-14 and go to its best turn speed faster, though it had a higher wing loading and thus its turn radius was larger. In a sustained turning combat situation the F-5 was at a disadvantage so the pilot needed to take advantage of the F-14's time to change wing sweep and reduce speed to get into a trailing shooting position.

As always fighter pilots need to not only take advantage of their aircraft's pluses but also take advantage of the enemy's minuses.

Michael Catlin

## Membership

Current paid 2020 membership is 60 and I have a lot of member packets left to give out. Each packet contains a welcome letter, an information sheet to allow members to update their information, a return address label to send back corrected information sheets and the all important 2020 club sticker to be placed on the upper left side of your transmitter. If you need more than one sticker simply ask. Since we are now getting Drone members, be on the lookout for Drone stickers which have a drone image on a blue background.



After February there is a \$5 penalty (\$77). I am accepting mail in renewals. Send checks to (no cash please)

KCRC c/o Michael Catlin  
6812 Adrian Rd  
Knoxville, TN 37918

The gate combination will be emailed to current members only and as of this newsletter only current members will receive email notices and newsletters. Newsletters will still be posted on the clubs website <http://www.kcrctn.com>. However, this may change in the future and only newsletters from previous years will be available to non-members.

Remember, only those with current AMA membership will be allowed to fly at the field and do not tell anyone the gate combination without checking for membership. If there is a question about membership there is a membership roster in the lock box with the applications. Non-members do not receive email notifications about club events or newsletters.

## Upcoming Events (Notice events may be canceled)

~~July 4<sup>th</sup> flying and first class lunch~~

**Tennessee Eagles War Bird Event Saturday, June 13 Tennessee Eagles R/C Club, Harriman, TN**

**House Mountain Aug 5–9. Huckfest**

**Tennessee Eagles Charity Event Saturday September 19 Tennessee Eagles R/C Club, Harriman TN**

**House Mountain Sept 25 -27. Warbirds**

**Bradley County Radio Control Model Aircraft Club Warbird fly-in May 23 AMA sanction event**

**Fall Fun Fly - October 17, 2020**

**Don't forget to visit KCRC Knox County Radio Control on Facebook!**



221 members strong.  
Daily 3 day weather predictions  
Daily aviation photos  
Event advertisement from other area clubs  
Items for sale.  
Articles, information and aviation related videos.  
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