



The Flightline



Volume 49, Issue 11 Newsletter of the Propstoppers RC Club AMA 1042 December 2019



President's Message

Dear Fellow Propstoppers,

For those of you who don't know who I am, I have been a member of Propstoppers for approximately 28 years.

My son sparked my interest in RC Flying while he was in middle school. I recently started to train his son (Connor) and my daughter's son (Brett) to fly. My son (Mike) is planning to return to the hobby in 2020.

I spend a fair amount of time flying at the Elwyn site and have made many friends in this club. I consider it an honor to serve as your President and to work with your other officers. I believe we are off to a good start with the changes we have made to the membership process.

Please thank Dick Bartkowski for his work in setting up PayPal and Larry Woodward for coordinating with him to make it work. I am planning to remain as Membership Coordinator through January 31 of 2020. At that time, we will be asking for someone to step up to take over that role. (Continued on pg.3).

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Agenda for December 11, 2019

Meeting At

Gateway Community Church Meeting Room

7:00 8:30 pm

1. Call to Order and Roll Call
2. Approval of minutes
3. Treasurer's Report
4. Old Business:
 - Membership Report
 - 2020 Dues
 - Quarterly Meeting proposal
 - Officer Vacancies
 - FAA update
5. Holiday Celebration!

Minutes of the Propstoppers Model Airplane Club

Tuesday 12th of November 2019 at the Gateway Community Church meeting room.

Call to order took place at 7:00 PM by Vice-President Pedro Navarro.

Minutes of the September meeting were approved as published.

Treasurer's report was presented by Pete Oetinger. Roll call showed 10 members present.

Old Business:

The election of 2020 officers was held with all running unopposed. Candidates were Mike Black for President, Pedro Navarro for Vice President, Dick Bartkowski for Secretary and Pete Oetinger for Treasurer. This group was elected by a unanimous vote of the members present.

The group discussed the frequency and place of meetings. A proposal was floated to move to quarterly meetings for the next year. This will be discussed at the December meeting to get a sense of the membership so that the officers could make an informed decision.

New Business:

The group discussed membership procedures in view of the possible reduced frequency of meetings. The sense of the group was to have an application fee for member candidates. The candidate should be checked out for flying and allowed to fly with members present. The candidate becomes a full member at the next meeting with application fee applied to dues.

The group discussed dues for the new year. The treasurer showed financial projections which allowed the group to make several suggestions to the Executive Committee. This will be decided by the Executive Committee so that dues can be collected in December.

Show and Tell:

Ken Merlino showed his home brew model - fuselage type with the Norvel 0.61 glow engine. He has had difficulties binding the receiver and getting it to work properly.

Adjournment took place at 8:30 PM

Propstoppers RC Club of Delaware County, Pennsylvania.

Club Officers

President:
Mike Black

Vice President:
Pedro Navarro

Secretary:
Richard Bartkowski

Treasurer:
Pete Oetinger

Membership Chairman:
Mike Black

Safety Officers:
Eric Hofberg
Ryan Schurman

Newsletter Co-Editors:
Dave Harding
Larry Woodward

Webmaster:
Vacant

Propstoppers Web Site;
www.propstoppers.org

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Indoor Flying at the Brookhaven Gym

Indoor flying is now available at the Brookhaven Gym Tuesday mornings at 10:00-11:00 am following Breakfast Club

(Check first with the Community Center during the holiday season. Sometimes the gym is closed for special holiday events.)

(President's Message: continued from Pg. 1).

I am working closely with Pete Oetinger to get our membership information under control. Pedro Navarro will be working with Ryan Schurman and Eric Hofberg to develop necessary flying rules for both fields, but especially at Gateway Field.

We have plans in motion for some changes to our club. Please look at the other articles in this newsletter for information. We will ask for your input and vote where necessary. Please read the FAA Agreement in place for the Gateway Field in its entirety.

Thanks to Chuck Kime for stepping into the Presidents role and for his service to our club during the tough times we had this year.

See you at the fields,

Mike

Calendar of Events

CLUB MONTHLY MEETINGS:

Second Tuesday of the month.

Gateway Community Church. Doors open at 7:00

Gateway Community Church Meeting Room

TUESDAY BREAKFAST CLUB:

Tom Jones Restaurant on Edgemont Avenue in Brookhaven. 9 till 10 am. Just show up.

Flying after in the summer at CA or Elwyn Field 10 am. Weather permitting.

Flying Indoors in winter at the Brookhaven Gym 10:00-11:00 (subject to availability of the gym).

REGULAR CLUB FLYING:

At Old Christian Academy Field (Gateway Community Church); Electric Only-

Monday through Friday after school till dusk

Saturday 10 am till dusk

Sunday, after Church; Noon till dusk

At Elwyn Field; Fuel or Electric

Monday through Saturday 8 am till dusk

Sunday 10 am till dusk for Electric, Noon till Dusk for Fuel.

INDOOR FLYING:

See notice of dates, pg. 2.

SPECIAL CLUB FLYING:

Saturday mornings 10 am

Wednesday Helicopter evening in summer

Thursday evenings in the summer

Tuesday mornings 10 am weather permitting after breakfast.

2020 DUES ARE DUE in DECEMBER

Membership renewal for 2020 has now begun. You can renew by mail, Paypal or at the December meeting

Bring cash, check or pay with your smart phone.

2020 Dues are \$85.00.

Pay only \$75.00 (no later than December 31) with early-bird discount.

Members who have not renewed by Jan. 31, 2020 will have all flying privileges revoked and will be removed from the club roster.

To renew by mail, please send a check, made out to the ***Propstoppers***, to:

Mike Black

110 Poplar Walk Ridley Park, PA 19078

Editor's Note:

Glad to be back!

After being away for so long reporting from Crosby Landing Beach, it's nice to be back in Pennsylvania and flying with Propstoppers again. The late fall has been good to us with plenty of beautiful flying days well into November. Pedro and I had a great afternoon at Elwyn Field recently flying with some of the helicopter guys. Fran Misantone, Matt Borden and Lamarr Williams can often be found this time of year at the field on weekdays after work. They put on an impressive display of serious equipment and awesome flying skill.



Matt Borden, at right, shows off one of his “serious” helicopters. Pilots like Matt, Lamarr and Fran always impress me, not only with their flying skill, but also with the depth of their knowledge and skill at the set-up and maintenance of these very complex machines.

Fran, below, gave us a demo of high speed FPV flying with his equally impressive 40” VAS Banshee.

The Banshee is equipped with a Cobra 2200 - 2300 KV motor with a 6 x 5.5 prop and a Cobra 60 amp ESC. The camera is a Runcam Swift with a 5.8 Lumineer video transmitter. Click the link below to see the video he is getting from the DVR in the Fatshark Terminator 2 goggles with a Furious FPV Diversity Video receiver using a V A S Mad Mushroom Circular Polarized antenna and a V A S 3 Turn Helical Directional antenna and VAS stands for the video aerial systems

See if you can catch a glimpse in the video of the vultures flying over to “check out” the Banshee.

[Banshee Video](#)



2020 Officer's Goals

President Mike Black has stepped up at a time when the club is looking at many problems and issues that will affect our future for the next decade. At the first meeting of the newly elected Executive Committee, he outlined his assessment of the challenges we face and offered the following list of goals for moving forward:

- Effect a change in our General Membership Meeting Schedule.
Replace monthly meetings with 4 meetings spaced almost quarterly. We will discuss this in more detail at the December and January Meetings. If passed in a motion this would become effective after the January meeting.
- Hold, at minimum monthly, business meetings of the Executive Committee.
This was begun in December. The Officers have committed to making sufficient time to address the many tasks needed to keep the club strong and healthy.
- Improve Membership processes.
Update processes for registration, dues collection, communication and recruitment. Some of this is under way already with new web based systems for registration and dues payment.
Recruit and appoint a new Membership Chairman by February 1, 2020. Please talk to one of the officers if you would be willing to help.
- Increase Memberships.
One excellent idea was posed at the first Executive Meeting, but we need all the help we can get. Officers will work closely with the membership to explore ideas and actions for effective membership growth. Please talk to one of the officers if you have suggestions.
- Meet FAA compliance at Gateway Field.
An FAA Agreement has recently been signed for Gateway Community Church (formerly known as Christian Academy) Field. A meeting needs to be held with Gateway leadership to review the roles and responsibilities regarding FAA and to get permission for required signage.
- Update the Propstoppers.org website.
If we move from a monthly to a quarterly meeting schedule, we will become more dependent on e-communications and will need a Web Coordinator to manage the website, email and data systems. Any member with experience in this area please step forward!
- We are undertaking a good number of new initiatives and will only be able to follow through with help and support from the full membership. Please volunteer where you are able.

The Executive Committee

FAA Philadelphia Tower signs UAS agreement with Propstoppers.

Propstoppers' Gateway Community Church Field is located within a 5 mile radius from the Philadelphia Airport control tower. That puts us in a Class B Airspace requiring all UAS pilots, including recreational pilots, to receive permission from the tower whenever flying. With assistance from the AMA headquarters, President Mike Black and VP Pedro Navarro have been negotiating with FAA over the past several months to grant us "Fixed Site" status. This gives us a prearranged permission to fly on our site within established operating times and procedures.

While this allows us to continue operating as usual, it also makes us solely responsible and accountable for all flights from our field. Flying at the field is permitted only under our rules and supervision. All members must be careful to fly within the established conditions of the agreement and rules of the Club and AMA.

Outsiders are not be permitted to fly except as qualified and supervised guests of our members, as provided in the club rules and policies.

All members should read the entire agreement, presented below, and familiarize themselves with the conditions set forth by the agreement. It establishes serious and legally binding privileges and responsibilities for our club and its membership. It is an important component of the Philadelphia Airport's operating safety and security, which includes flight paths in our area. We must all strive to honor and implement the agreement fully.

**Philadelphia TRACON/Tower
Propstoppers Radio Controlled Club
LETTER OF AGREEMENT**

Effective: 12/15/2019

SUBJECT: FIXED SITE OPERATIONAL AREA AGREEMENT

1. **PURPOSE.** This Letter of Agreement between Philadelphia TRACON/Tower (PHL ATCT) and Propstoppers Radio Controlled Club provides limited recreational flyers authorization to operate at the Gateway Community Church Field.
2. **SCOPE.** The procedures outlined herein are for the safe use of Unmanned Aircraft Systems (UAS) within the Gateway Community Church Field Fixed Site Operational Area.
3. **TERMINATION.** The Propstoppers Radio Controlled Club, upon giving thirty (30) days advance written notice, may terminate this agreement. PHL ATCT may terminate or suspend flight operations/this agreement at any time, if the safety of persons or property are compromised or there is a violation of the terms of this Letter of Agreement.
4. **DEFINITIONS.** The Gateway Community Church Field, is an Approved Fixed Site Operational Area, located at 708 South Middletown Road, Media PA 19063, Runway centered at 39°52'42.40"N / 075°24'16.52"W, with lateral and vertical boundaries as defined in Attachment 1.
5. **RESPONSIBILITES.** Propstoppers Radio Controlled Club is solely responsible for all operations at the Gateway Community Church Field. Propstoppers Radio Controlled Club must ensure that all operators at the Gateway Community Church Field are familiar with the procedures in this agreement. Propstoppers Radio Controlled Club is responsible for all signage located on Gateway Community Church Field and must comply with applicable all current Federal, State and Local governmental laws and regulations.
6. **PROCEDURES:**
 - a. **General**
 - 1) The Operational Area is active:
 - a. Monday thru Friday:
 - i. During the school year from 15:00L until Sunset.
 - ii. When school is not in session from 10:00L to Sunset.
 - b. Saturday from 10:00L to Sunset.
 - c. Sunday from 12:00L to Sunset.
 - 2) All operations must be contained within the Gateway Community Church Field Fixed Site Operational Area as defined in Attachment 1 and conform to all current Federal, State and Local governmental laws and regulations.
 - 3) All operations at the Gateway Community Church Field will be conducted at or below 400' Above Ground Level.

**Philadelphia TRACON/Tower
Propstoppers Radio Controlled Club
LETTER OF AGREEMENT**

- 4) This Letter of Agreement does not relieve the remote pilots from the responsibility to check the airspace they are operating in and comply with all restrictions that may be present, such as Restricted and Prohibited Airspace, Temporary Flight Restrictions, etc.
- 5) Propstoppers Radio Controlled Club will notify PHL ATCT at (215) 492-4123 in the event of lost communications, fly away or lost link of any unmanned aircraft systems (UAS).
- 6) Propstoppers Radio Controlled Club must ensure that PHL ATCT has current contact and address information.

ATTACHMENTS:

1. Attachment 1: Propstoppers Radio Control Club Field, Fixed Site Approved Operational Area.
2. Attachment 2: Propstoppers Radio Control Club Contact Information.


John Reagan,

PHL ATCT Air Traffic Manager


Michael Black

Propstoppers Radio Controlled Club
President


Ryan Schurman
Propstoppers Radio Controlled Club
Safety Officer

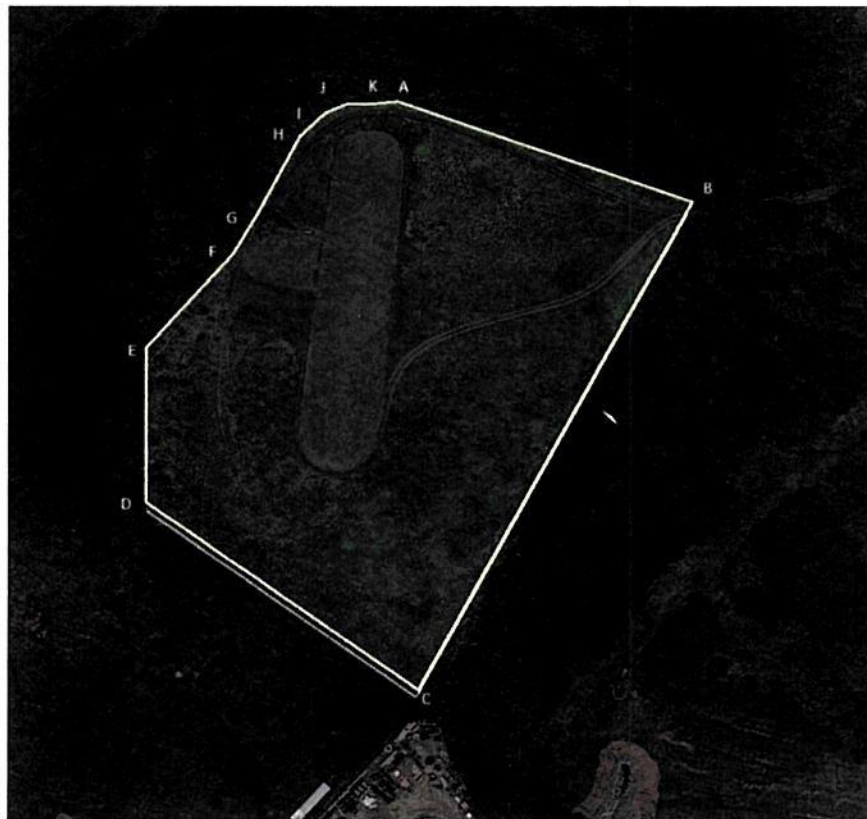
**Philadelphia TRACON/Tower
Propstoppers Radio Controlled Club
LETTER OF AGREEMENT**

ATTACHMENT 1

Propstoppers Radio Control Club Field Approved Fixed Site Operating Area Description

All operations will be conducted at or below 400' AGL

POINT A	39° 52' 44.81"N / 075° 24' 15.89"W
POINT B	39° 52' 43.42"N / 075° 24' 11.88"W
POINT C	39° 52' 38.08"N / 075° 24' 15.93"W
POINT D	39° 52' 39.82"N / 075° 24' 19.11"W
POINT E	39° 52' 41.49"N / 075° 24' 19.26"W
POINT F	39° 52' 42.65"N / 075° 24' 18.20"W
POINT G	39° 52' 43.18"N / 075° 24' 17.88"W
POINT H	39° 52' 44.28"N / 075° 24' 17.31"W
POINT I	39° 52' 44.62"N / 075° 24' 16.95"W
POINT J	39° 52' 44.76"N / 075° 24' 16.64"W
POINT K	39° 52' 44.76"N / 075° 24' 16.32"W



FAA Moves to Automated UAS Flight planning

FAA has made strides toward developing WEB apps to automate requests for UAS flight coordination in class B controlled airspace.

By Larry Woodward

Our recently negotiated Letter of Agreement with FAA granting Fixed Site status to our fields relieves pilots flying there from the requirement to contact PHL Tower prior to flying. However, anyone flying outside the registered limits of our Agreement, even Propstopper members, must still comply with the notification requirement for Low Altitude Authorization and Capability (LAANC).

In reality, compliance with this requirement is not a practical reality and places an unrealistic burden on both the recreational pilots and the FAA staff. To address the issue, FAA has been working with third party developers to create web based software and apps to allow the process to be automated. At this time there are several test projects in use that allow a pilot to communicate, in real time with integrated systems at FAA and at local air traffic control to request, analyze and grant authorizations.

Essentially, with these systems a pilot can open an app on his smart phone or pc. His location will be entered manually or by geolocation and applicable flight regulation and control requirements will be provided by FAA. After he enters a proposed flight plan the information is transmitted to local air control systems that integrate the plan with ongoing flight operations and send back the authorization response. Theoretically this will all be accomplished in a matter of minutes.

A number of these test systems are in place now throughout the county, including at PHL. For more information and to find downloads of the available system apps check out the link below.

[Low Altitude Authorization and Capability \(LAANC\)](#)



AIRBUS PERLAN MISSION II 2019 ARGENTINA WRAP UP

By Dave Harding

In the January 2010 issue of flight line I introduced members to the Perlan project for a record breaking high altitude glider system being developed by Airbus.

On September 2, 2018 Airbus Perlan Mission II claimed its third world record in a fabulous week of high altitude Patagonia soaring.



The team of 20 dedicated people, and the Perlan 2 glider were ready to fly again when the weather supported mission goals of Exploration, Innovation, and Inspiration. The pre-flight process inspected all life support systems and a few tweaks were made. Luciano Bruzzese from Buenos Aires had come to visit representing FAVA for Argentina record approval.



The night before and in the early morning hours, El Calafate had hard rain, snow flurries, and even small hail. Initially Tim had wanted to launch early based on forecasts, so we arrived in the dark for final preparations. The morning clouds were low, but forecast by Walt (and Dan remotely) to dry up as the surface winds increased. We delayed an hour, then another hour. We watched the wet rooster tails as commercial airlines took off. Miguel assessed the runway conditions personally. Finally Jim set a 11:30

launch time to fit into commercial flight scheduling. The forecasts had changed to best conditions in the afternoon, rather than the morning. The tropospheric mountain wave to 20,000 feet looked extremely weak. The lift through the tropopause looked weak as well, but at least it was forecast to exist. The tropopause is what Perlan Project calls mid-level.

But Airbus Perlan Mission II has always been focused on the high stratospheric wave. We are more interested in the atmosphere 40,000 feet and above. That's where the Perlan 2 is best optimized to explore and collect untainted science data. Yes the records are fun and they grab headlines, but for us they document the altitudes safely achieved without an engine when the stratospheric wave is working. Records are not the primary goal of Perlan Project, more like the icing on the cake.



We pushed the Perlan 2 out of the hangar onto a semi-wet ramp with brisk winds. Nothing was allowed to get wet, even pilots' inner booties. Their walking soles were dried so there was no chance of ice forming near their feet. Then Jim and Tim put the last layer of insulation on. The pilots and all gear were loaded into the cockpits. The pressurization test was flawless. (Thanks again Greg for those hatches!) The protection film was removed from the uber sensitive polycarbonate windows and it was time to go to the runway.

The launch behind Arne in the Egrett into a brisk, cold wind was again flawless. My launch video shows without a doubt that the takeoff roll was 200 feet when Perlan 2 lifted off. As they climbed together, Arne and Perlan reported possible sink areas but no lift areas. We are trying to collect data to help forecasters with their weather models. The tow rope somewhat impacts the wind speed data for the Perlan while on tow. But as they towed through the tropopause there was no lift for Perlan to work. They arrived at the bottom of the high wave zone and finally reported decent lift. Arne said it was best he had seen this season.



The Perlan 2 is optimized for high altitudes. But the higher you go and the faster the true airspeeds, the stronger lift Perlan needs just to stay level. A forecast of 5 knots (500 foot per minute) means we cannot climb at these altitudes, we need more. And until we actually fly in the forecast zone we don't know how to reality check the forecast. Is it offset 5 kilometers up/down wind? Does the lift band actually start



higher/lower than forecast? Do the downwind wave harmonics exist? Stronger/weaker lift? All of these questions have had conflicting adjustments from one high flight to the next. More accurate weather models for South America can improve our understanding of weather globally.

Today's tow was just over an hour. But it took that long to connect with the bottom of the stratospheric wave around 44,000 feet. Once off tow Perlan 2 climbed into decent wave, but not spectacular. It took an hour to get above the old record. Tim made a great video of that 3 minutes from inside Perlan 2. At this point they were just above 20,000 meters or 66,000 feet. That is more than twice as high as Mount Everest! There is a YouTube link below. Jim and Tim got several photos looking down at Mount Fitzroy peaking through the clouds from this altitude. Once in new altitude territory, Jim performed several test points to verify that the airframe was behaving as expected according to the flutter models. This is shown by the flat line on the barogram where they are not climbing. Lars Bensch in CapComm analyzed the data real time. After these runs met approval it was time to seriously climb.



If you watch on our Virtual Cockpit we try to give near real time commentary on Twitter so you have the inside knowledge of what's really happening with Perlan 2. Over 12,000 folks watched on a Labor Day holiday Sunday. The Perlan 2 passed 70,000 feet and stopped for more flutter excitation runs. Then they soared through the U-2 record altitude above 73,000 feet. The actual high point was just over 76,000 feet pressure altitude. The FAI uses GPS altitude which was just over 74,000 feet. These numbers will be adjusted after the instrument calibration is performed in the next two months post flight as the rules require.

Unfortunately the front cockpit go-pro and the front displaying tail camera did not work on this flight. The Garmin VIRB 360 did work and there is a YouTube link to the highest footage at end of the blog. This was extremely scenic as the highest point was over the turquoise waters of Lago Argentino with Lago Viedma under the left wing. The high point is one minute into that video.



The landing at El Calafate was again with a mostly flat tire, looking into the sun, with a brisk wind. We got some excellent photos of two happy pilots. The hot chocolate and hot tea were well received by the pilots. Our NASCAR quality line crew aired up the tire before pulling the Perlan 2 back to the hangar. The champagne was ready and the ecstatic team posed (mostly out of the wind) inside the hangar with the frozen Perlan 2. Check out Stewart's beard as our personal wind sock in the team photo. Stewart and I got the flight logs downloaded and Luciano observed me Observing.

What a fabulous week of stratospheric wave soaring it was. Three world records claimed in this time with very few squawks to work on before the next high altitude attempt. Jim said : We believe that this is the highest sustained flight by a winged, manned, subsonic aircraft...Thanks to Aero Club Lago Argentina, ANAC, EANA, LADE, PSA, El Calafate Aeropuerto, El Calafate Torre, Comodoro Control, Egrett Team, and the Perlan Team for the outstanding support.

Perlan Soars High!

YouTube of 2:45 minutes of tail camera above 76,000 feet (pressure) altitude <https://youtu.be/hk7JcKMrkk>

OLC Flight Trace <https://www.onlinecontest.org/olc-3.0/gliding/flightinfo.html?dsId=6888067>

YouTube of 3 minutes inside Perlan 2 as they break the previous record <https://youtu.be/pRhKIVCgujE>

Air racing tournament unveils an all-electric sports aircraft

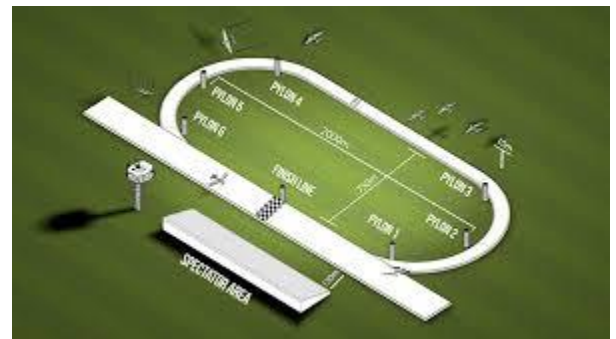
The Airbus-backed White Lightning is built for very low-altitude competition

Jon Fingas, @jonfingas
11.17.19 in *Transportation*

<https://www.engadget.com/2019/11/17/air-race-e-white-lightning-electric-aircraft/>



The electric aircraft seen to date have focused more on raw utility than thrill-seeking, but that's about to change very shortly. Air Race E, an air racing tournament backed by Airbus, has formally unveiled what it bills as the first electric race aircraft. The Condor Aviation-made White Lightning looks like a typical competitive single-seater, but packs an electric motor that can propel it to 300MPH while handling tight turns on a 3.1-mile circuit at just 33 feet off the ground.





The lithium battery is short-lived, to put it mildly -- the White Lightning can last for just five minutes of all-out racing, and 10 minutes of reserve flight at lower power. You won't see any endurance races with this one. Air Race E chief Jeff Walkman instead describes the airplane and the tournament as a "test bed" that will foster electric flight as a whole.

The racing tourney doesn't kick off until 2020, and some details have yet to be nailed down. Air Race E is only poised to name the eight teams for the first race later this week. It could represent a milestone for high-speed electric flight, though, and the technological discoveries made here could translate to everyday air travel in the years ahead.

Via: Reuters

Source: Airbus (Twitter), Airbus

In this article: air race e, air racing, airbus, aircraft, condor, condor aviation, electric aircraft, electric airplane, gear, green, racing, sports, tomorrow, transportation, white lightning

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A Moment in Flight:

Flight Video by Pedro Navarro

The venerable Pitts S returns for an exuberant flight to the tune of “Dance Forever More” by Si Cranstoun.

[Click here to see this month’s Moment in Flight.](#)

