



The Flightline



Volume 48, Issue 8 Newsletter of the Propstoppers RC Club AMA 1042 August 2017



Looking for volunteer to take over as Newsletter Editor

After 17 years with one short break I am ready to hand over the baton to someone more involved with the club activities. We have a really healthy club with many members flying up a storm at both of our fields. There is a lot to report. How about stepping up to serve?

Dave Harding

Agenda for August 8th Meeting At On the CA Field 7:00 pm till 8:30

1. Show and Tell
2. Membership Report
3. Finance Report
4. Club Calendar Review
5. Plan for August Club Picnic

Propstoppers Club Monthly Meeting

July 11 2017 at the Christian Academy meeting room

Call to order took place at 7:10 PM by President Dick Seiwel
Minutes of the June meeting were approved by the membership
Present were 11 members and one guest

Old Business:

The president noted that the club picnics are set as listed in the newsletter.

Al Tamburo described needed improvements to the control line circle.

Show and Tell:

Andy Peterson showed his new scale model of the V- 22 Osprey tilt rotor aircraft. It was nicely colored. Its only flight was an accidental take off indoors which left him with a superficial head wound. It is electric and ready to fly.



Al Tamburo showed a yard sale electric trolling motor. It was severely rusted but yielded to rust remover and now appears to work.
Adjournment took place at 7:41 PM

Dick Bartkowski, Secretary

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Club Picnics

August 19th at CA Field

September 16th at CA Field

December 12th Indoor Holiday Party

Calendar of Events

Club Meetings

Monthly Meetings

Second Tuesday of the month.
Gateway Community Church at the Christian Academy. Doors open at 7:00

Next Meeting; 8th July at the CA Field

Tuesday Breakfast Meeting

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.

Indoors at the Brookhaven Gym in bad weather 10:30-11:30 See dates allowable.

Regular Club Flying

At Old Christian Academy; **Electric Only**

Monday through Friday after school till dusk

Saturday 10 am till dusk

Sunday, after Church; 12 pm till dusk

At Elwyn Field; Gas or Electric

Monday through Saturday 8 am till dusk

Sunday 12 pm till dusk

INDOOR Flying, see attached dates.

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.

Check our Yahoo Group for announcements;

<http://groups.yahoo.com/group/propstoppers/>

Beginners

Beginners using due caution and respecting club rules may fly Apprentice or similar models without instructors at Christian Academy Field.

The club also provides the AMA Introductory Pilot Program for beginners without AMA insurance.

Propstoppers RC Club of
Delaware County, Pennsylvania.

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Propstoppers Web Site; www.propstoppers.org

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Flying at Elwyn



Larry flew this exceptionally agile Stearman
Dave made his first flight in almost a year.



Flying at CA Field, Picnics and All

They say no good deed goes unpunished, and so it was with the Board's attempts to arrange the June Picnic. First the concern was that many stalwart club flyers would plan to attend the Warbirds over Delaware meet as they have in the past. So the picnic was rescheduled.

Of course the usual Warbird fans may have seen it all before so preferred to fly at CA field and have a picnic anyway. I hear it was a good one.

Then on the following Saturday, when the rescheduled picnic was planned the weather forecast was absolutely dreadful with thunder, rain and high winds forecast. So the Board decided to cancel. Thoughts of tumbling canopies, food tables and BBQ were enough to make the decision. Of course, the weather remained fine and another great picnic was held by the same stalwart CA flyers.

Volunteers for Board positions should be considered before the October nomination period☺.

Better yet, Matt Borden recorded these events and shared with us the conditions and flying that took place.









Matt Borden

Storms and Wind

Most flyers find it useful and sometimes essential to know the wind direction and speed. Old Flying Buddy Mick Harris is a pick some grass and toss it specialist, others use the wet finger approach, but we are all better off with some form of "wind sock". Trouble is they tend toBlow Away!

Eric recently purchased two windsocks, one for each field. The one at Elwyn has disappeared twice recently. Concern was they were being "harvested" by some needy person. But the first one was found "downwind" in the long grass. Haven't found the latest one thought. But it reminds me of a personal story.



The discovery of North Sea oil in the early 1970s saved the crippled UK economy. Expansion of the whole system required massive investment in rigs and infrastructure but the results were a staggering inflow of tax funds not only saving the economy but allowing a massive increase in Government spending. (The Norwegians on the other hand realized it would not last forever so they wisely put much of the income in a rainy day fund the largely allowed them to survive the 2009 financial collapse.... But I digress....)

Part of the increase in infrastructure was a significant helicopter fleet.

Earlier a small element in what was then British Airways explored the application of helicopters to expanding the reach of aviation services. This group recognized the expansion required to support the North Sea oil not only in number of helicopters but the size and productivity of larger machines. So they came to Boeing and asked about buying commercial Chinooks.

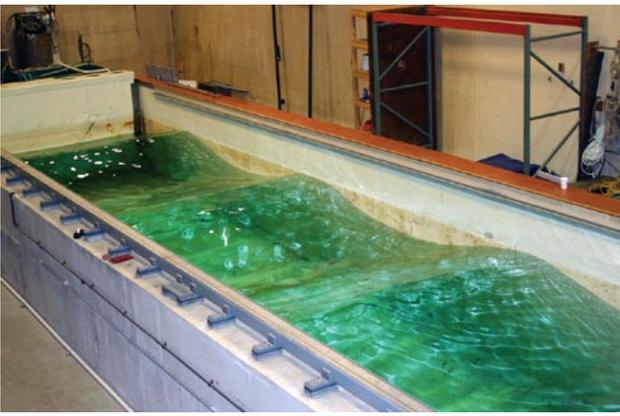
At that time the Chinook was purely a military machine and we had not sought to certify it for civil application. However the British Airways helicopter staff believed it was a fairly straightforward process to acquire CAA (the UK's FAA) certification. Unlike the US FAA bureaucracy the CAA was staffed with a small cadre of top industry experts who were invited to join the CAA at the top of their careers. They were accustomed to making fast decisions which indeed they did. (Ask me about hosting their visit!)

So we set about defining the configuration of the commercial Chinook for this market. I was the assistant Project Engineer.



First new thing was the need for larger fuel tanks to allow longer missions and avoid refueling on Oil Rigs where possible. Second thing, enhanced by the bigger tanks, was the requirement to ditch and live in water with high wave states.

I had John Burkam, model helicopter pioneer (see Sept 2010 newsletter) build a large dynamically scaled model which we tested in the British Hovercraft wave tank on the Isle of Wight in the UK.



Next problem was they planned to operate almost continuously at high gross weights so it was necessary to use the latest wide chord advanced airfoil fiberglass rotor blades we recently qualified for the US Army. Small problem associated;

Many helicopters, and particularly Boeing tandem rotor helicopters, have a wide flapping envelope for the rotor blades. This means they and the associated hub hardware must allow clear flapping over the required angles. However, on shut down the blades must be held off the fuselage top, so the hub includes “droop stops” which move into place at lower rpm. These droop stops must be strong enough to support the blades through high flapping motions occurring in shut down in high winds.

The problem facing us was the heavier fiberglass blades would impart higher loads in shut down in the same wind speed as the original steel blades. So we had to either design and qualify new droop stops and maybe the associated rotor shafts, or limit the shut down wind speed. Now from memory I think the original shut down wind speed was 35 knots and with the heavy blades it would reduce to 25 knots.

The reason this whole issue was important was the need to shut down while on an oil rig. If they were to land on an oil rig in high winds it would be impossible to shut down. This in turn would mean all loading and unloading as well as refueling have to be done “hot”. Furthermore, should a helicopter be shut down on an oil rig for any reason, it could not be restarted if the wind speeds exceeded the droop stop limits.

So we had our operations analysts do the research on wind speeds in the North Sea. They told us only 1% of the time would the wind speed be between 25 and 35 knots, so not such a big effect on operations. This we passed on to their Chief Test Pilot.

A while later this fellow called me at the office. He said “I just wanted you to know that the anemometer (wind speed measuring device) on the Shetland Island base (in the North Sea) just blew away. Just before departing it indicated a wind speed of 125 knots!”

So we think we have a wind sock problem?



Dave

A Painted Bird of Many Colors Poised to Take Flight



SONG WEIXING/SIPA ASIA/ZUMA PRESS

Visitors stand behind a Russian-made drone Wednesday during the International Aviation and Space Salon outside Moscow.

I guess in hover the aft props point down and the forward, as shown, point up. Then in transition the forward props become tractors in the usual way and the aft props become pushers. Pretty neat! Anyone care to build one?



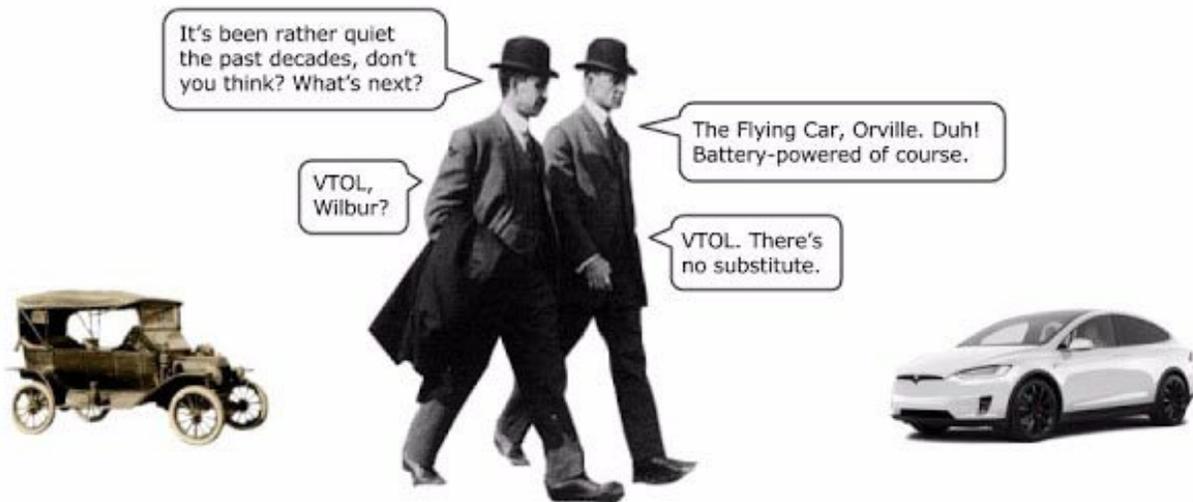
Wright Flyer (1903)



1st mass-produced helicopter
Sikorsky R-4 (1943)



1st mass-produced passenger jet
Boeing 707 (1957)



French military using winged warriors to hunt down rogue drones.



A golden eagle grabs a flying drone during a military training exercise at Mont-de-Marsan French Air Force base, Southwestern France,

Following incidents of drones flying over the presidential palace and restricted military sites along with the deadly 2015 Paris terror attacks the French air force has trained four golden eagles to intercept and destroy the rogue aircraft.

Aptly named d'Artagnan, Athos, Porthos and Aramis an homage to Alexandre Dumas' "The Three Musketeers" the four birds of prey have been honing their attack skills at the Mont-de-Marsan in southwestern France since mid-2016.



A French army falconer works with a golden eagle as part of a military training for combat against drones in Mont-de-Marsan French Air Force base, Southwestern France,

“A drone means food for these birds,” Gerald Machoukow, the military base’s falconer, told FRANCE 24. “Now they automatically go after them.”

The use of hunting birds

normally falcons and northern goshawks
by militaries around the globe

is common practice in the fight to scare other critters away from runways
and so cut the risk of accidents during take-off or landing.

But it wasn’t until 2015 when the Dutch started using bald eagles to intercept drones that other militaries started to see the benefit of these winged warriors.

The French bred the four golden eagles

three males and one female
using artificial insemination

since eagles are a protected species and harvesting wild eggs is strictly forbidden.

They chose the golden eagle because of the birds hooked beak and sharp eyesight.

Also weighing in around 11 pounds, the birds are in a similar weight class
as the drones they’re sent to destroy and clocking in at a top air speed of 50 miles per hour, with
the capability of spotting its target from over a mile away, the eagles are deft hunters.

To protect the eagles from drone blades and any explosive device that might be attached the them,
the French military designed mittens of leather and Kevlar, an anti-blast material, to protect the
bird’s talons.

A golden eagle carries a flying drone away during a military training exercise at Mont-de-Marsan
French Air Force base, Southwestern France,



"I love these birds," Machoukow told Agence France-Presse. "I don't want to send them to their death." The birds are first taught to attack in a straight line before graduating to diving from heights.

Soon they'll be patrolling the skies over the Pyrenees Mountains in southern France and could possibly be deployed at airports and special events, such as political summits and soccer tournaments.

While an initial progress report on the eagles' capabilities is due in June, French officials say that the results are promising and the French air force already expects four more eagles to join the fleet at Mont-de-Marsan by the summer.



Neat looking arrangement of two motors in the F-22. Thrust right in front of the ailerons. Of course differential thrust would provide some interesting aerobatics too.

**A long article that may be of interest to those who follow WWII air combat stories.
A good story about two P-38 Aces.**

http://www.warbirdsnews.com/warbird-articles/veterans-story-battle-heavyweights.html?utm_source=Visitor%2FReader&utm_campaign=3075bc3a51-EMAIL_CAMPAIGN_2017_07_23&utm_medium=email&utm_term=0_832eb4b9a2-3075bc3a51-246469101