The Flightline

Volume 48, Issue 19 Newsletter of the Propstoppers RC Club AMA 1042 October 2018

Inside This Issue

President's Message

Hi Guys,
If I look strange next time you see me, don't panic. It's called Sun Poisonong. I just spent a week at at the SAM Champs in Muncie Indiana. Actually I got the left side of my face burned just from the drive out there on the Turnpike. The rest was from flying my models and spending days staring up into the sky. Still, my wife and I had a reat time.

For those of you who have never made it to a contest, it's a real blast. There were three different SAM (Society of Antique Modelers) groups - various groups of Old Timers, Gliders, and small rubber Scale models. They were all good looking, good flying and made for a good week.
Check the back of the AMA magazine for lists of contest dates and locations.

I'll see you at the field. You may not recognize me.

I will be seeing Harry at the Brookhaven Community Center about arrangements for this year's indoor evening flying schedule. It should not be a problem, stay tuned.

My computer is down for the moment, but I would appreciate a call from anyone with ideas for how to make the indoor sessions more appealing to all members. We need to have better attendance this winter.

Chuck Kime, VP

Agenda for October 9th Meeting At *Gateway Church Meeting Room* 7:00 pm till 8:30

1. Call to Order and Roll Call
2. Approval of minutes
3. Treasurer's Report
4. Old Business
   - Safety Committee rules review
   - Elwyn Field Flying Hours
   - Yahoo Groups Calendar notification problems
   - Improving Winter evening indoor flying
   - New Business
   - Nominations for 2019 Officers
5. Show and Tell
6. Adjournment

Minutes of the Propstoppers Model Airplane Club

September 11, 2018 at the Christian academy meeting room.
Call to order took place at 7:09 PM by Vice-President Chuck Kime in the absence of the president.
Treasurer's report was postponed in the absence of the treasurer.
Minutes of the August meeting as published were approved.
Roll call showed 14 members present.

Old Business:
A vote was taken to accept the new and revised Propstoppers bylaws. The motion passed unanimously. The new bylaws are posted through link on our web site. There's minimal difference between these and the previous except for updates due to modern technology.

New Business:
Brookhaven gym is now open for indoor flying on Tuesday mornings at 10:00 AM. This follows the informal club breakfast that takes place at the Tom Jones restaurant at 9:00 AM.
We were reminded that nominations for club officers will take place at the next meeting.

Show and Tell:
Eric Hoffberg showed a Lippisch German P15 Diana jet flying wing. It is an electric RC foam ducted fan model. He notes that it flies very fast and is difficult to keep insight.

Dave Harding showed a scale old timer that he has used in contests. It is a model of a 1933 Tupolev monoplane that set records for long distance flights. He then discussed the wing shape which was long and narrow that enabled it to have low drag and very long range.

Adjournment took place at 10:05 PM

Propstoppers RC Club of Delaware County, Pennsylvania.
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Propstoppers Web Site; www.propstoppers.org

FLYING PRIVILEGES ARE NOW SUSPENDED FOR ANY MEMBERS THAT HAVE NOT PAID 2018 DUES

Membership renewal for 2018 is now required. You can renew by mail or at the club meeting

Bring cash or check and your AMA card.

Dues are $60.

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

Ray Wopatek
1004 Green Lane
Secane, PA. 9018

Please enclose a ***copy*** of your current
A. M. A. Membership card,

And Please, Please enclose a Stamped self- addressed envelope.

Ray Wopatek Membership Chairman

Calendar of Events

Club Meetings

Monthly Meetings
Second Tuesday of the month.
Gateway Community Church. Doors open at 7:00
Gateway Church Meeting Room
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 winter
10:00-11:00 (subject to availability of the gym).

Regular Club Flying

At Old Christian Academy Field; 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.

Bylaw Revision: Process and Progress:

Approved

by Larry Woodward

The proposed revisions to the Propstoppers Bylaws were approved, unanimously, at the September meeting. These new bylaws are now available for viewing at any time on the Club web site at.
http://www.propstoppers.org/pdf_files/bylaws/Propstoppers-ByLaws-approved%2010-2018%20.pdf

Thanks go out to the Bylaws Review Committee and all the Members who worked so hard to contribute to this important work.

Copies will be sent to the AMA National Headquarters for their records.

Chuck and Tina Kime Lauded at SAM Champs

While at the 2018, 50th Anniversary, International Championships for the Society of Antique Modelers (SAM) last week in Muncie Indiana, our dynamic duo of Chuck and Tina Kime were honored with a formal recognition of their long time participation in, and contribution to, the Society of Antique Modelers.

Through both competition and volunteer efforts behind the scenes at decades of Sam events they have been a consistent and reliable support to the Society. And as we all know, between Chuck's wit and Tina's charm, not that she doesn't get in her fair share of zingers too, they have made the whole event that much more delightful to everyone, wherever they attend.

Congratulations Chuck and Tina!

Indian Summer Comes to Elwyn Field

Photos by Larry Woodward

With summer conditions persisting, Tuesday Morning Breakfast members had to choose between indoor flying at the gym and a beautiful morning at Elwyn Field. For the majority it was not a difficult decision.

The Airbus Perlan glider soars above the peaks of the Andes in Argentina.

Submitted by Dave Harding

From: https://www.nbcnews.com/mach/science/experimental-glider-smashes-record-high-altitude-flight-ncna907586
by Tom Metcalfe / Sep.07.2018 / 4:56 PM. MACH-NBC News/digital

Riding the wind above the Andes Mountains, an experimental glider has set a world record for high-altitude flight. On Sept. 2, the sleek Perlan 2 glider carried two pilots to 76,100 feet, or more than 14 miles, over the El Calafate region in southern Argentina. That's the highest altitude ever reached by humans aboard an unpowered fixed-wing aircraft, and one of the highest altitudes reached by an aircraft of any description. Only spy planes and specialized balloons have flown higher.

"The biggest impression is, it's a long ways down from up here," one of the pilots, Jim Payne, said after the record-setting flight, which was one in a series of test flights sponsored by aerospace giant.

The tail camera of the Airbus Perlan glider captured this view from a world-record setting altitude.

Airbus. “The horizon starts to have a curvature in it and the sky is getting darker as we climb. ... It's a fantastic experience, once in a lifetime.”The record eclipses one set during a previous Perlan 2 flight over El Calafate on Aug. 28, which reached an altitude of 65,600 feet.

But the recent outing, which took about five hours, wasn’t just about establishing bragging rights. Ed Warnock, the aerospace engineer who heads the Perlan Project, a Beaverton, Oregon-based nonprofit that designed and built the $3 million glider, said data collected by the glider would help provide a better understanding of high-altitude air currents. That could help commercial pilots avoid dangerous but invisible regions of turbulence.

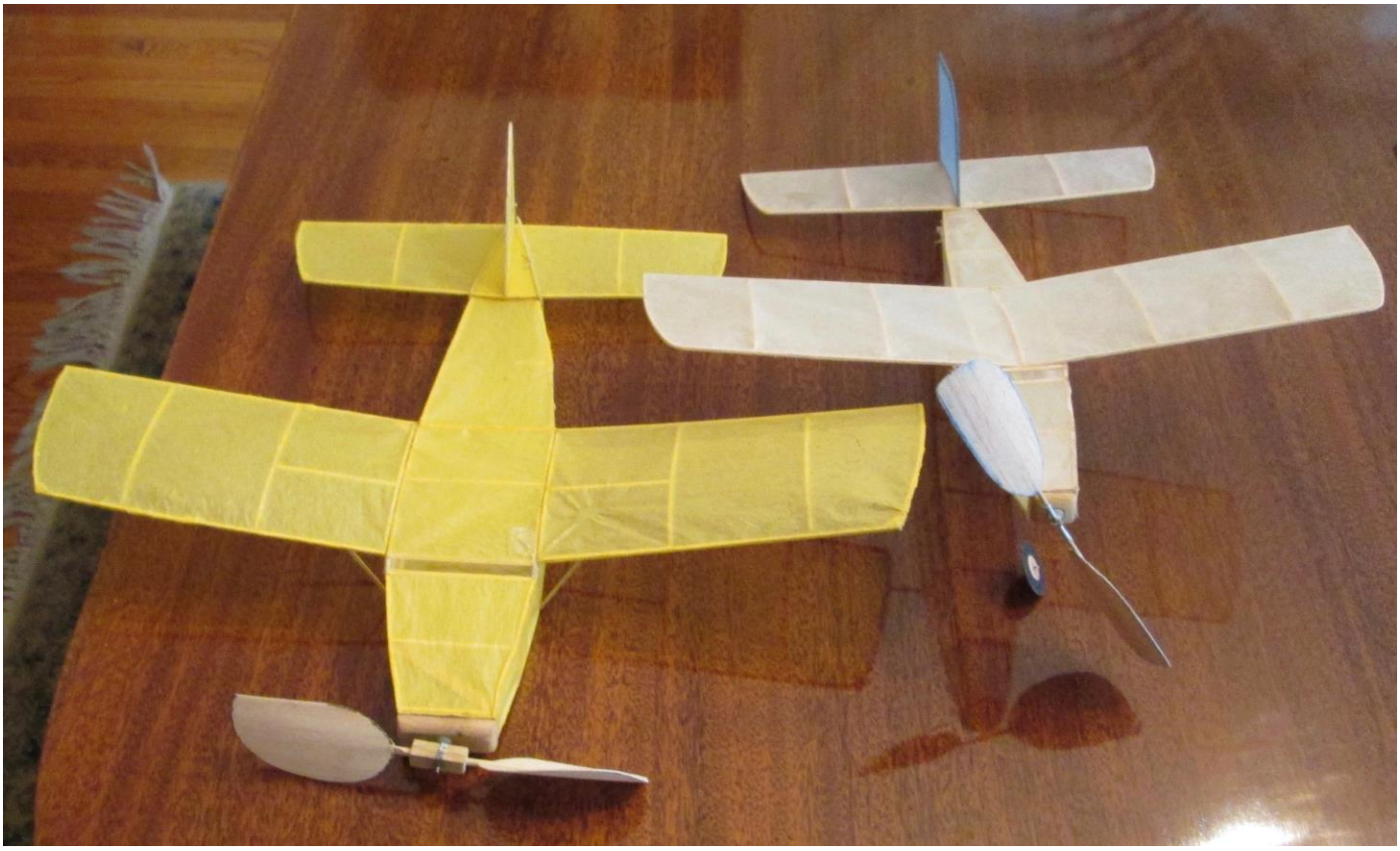
Perlan 2, which is made of carbon fiber composite material, has an unladen weight of 1,540 pounds, according to Payne. Its wingspan is 84 feet — about twice that of a fighter jet.
Since the Perlan 2 glider is unpowered, its onboard instruments can measure the speed, temperature and chemical composition of high-altitude winds without interference from a hot, exhaust-spewing engine. “This cannot be done with a propeller flight or jet, or from [a] satellite,” Jie Gong, an atmospheric scientist with NASA's Goddard Space Flight Center in Greenbelt, Maryland, told NBC News MACH in an email.

El Calafate is one of the few places in the world where high mountains interact with fast-moving polar winds, a phenomenon that gives rise to powerful “mountain waves” that rise as high as 100,000 feet. Payne said he and his co-pilot, Tim Gardner, reached the record-setting altitude by riding areas of uplift in the waves after an airplane towed the glider to 40,000 feet.
The new altitude record might not last long. Payne said the weather conditions needed to reach high altitudes in the El Calafate region will persist for about another 10 days, adding that he and other pilots involved in the flights hope to reach 90,000 feet in the coming days before the Perlan 2 is packaged up and returned to the U.S.

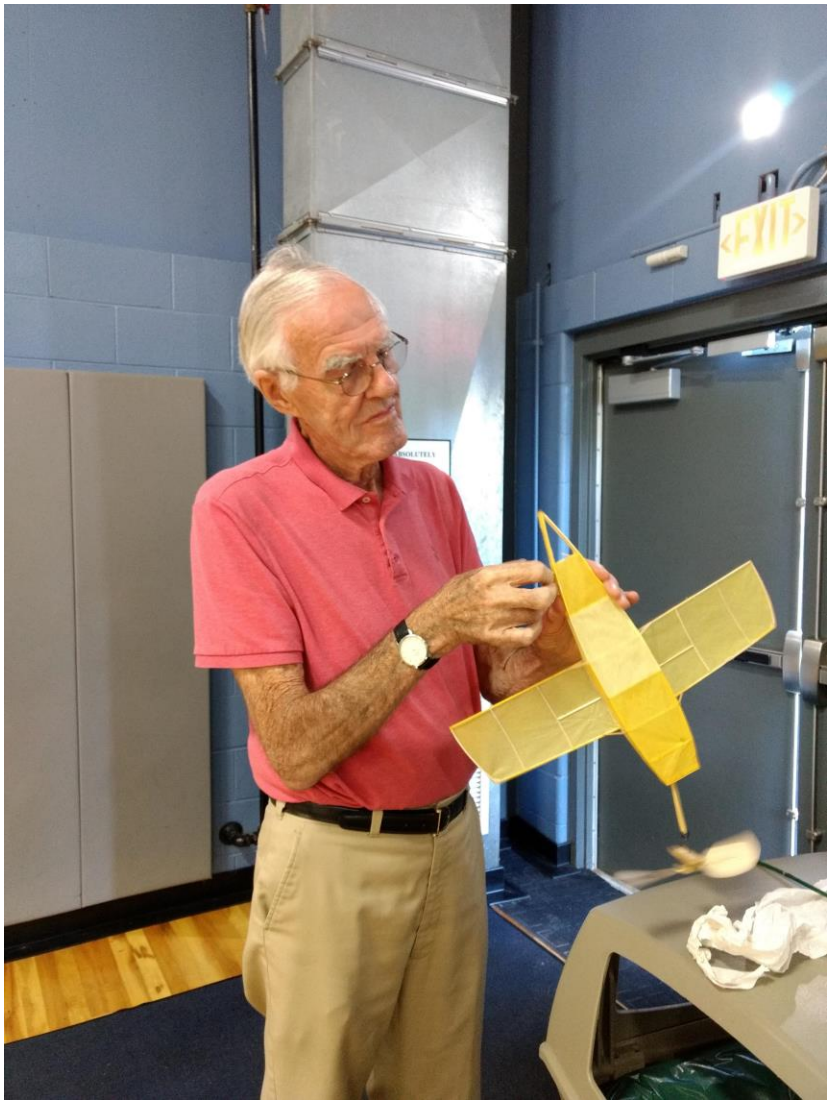
Back to the Building Board.

By Murray Wilson

Like one or two others in the club I am at heart a free-flighter, I moved to radio control only because outdoor free flight has become impractical in our area. Newt Bollinger's gift to the club a short time back of several rubber powered indoor models has stimulated interest in this form of flying and at least two of us are now building models to the Legal Eagle specification. For me it is meaning a welcome return to the modeling table to build something new, as since taking up radio control I have been flying (and repairing!) old timer balsa and "tissue" planes generously given to me by fellow club members. The indoor model I inherited from Newt was a Lite Bronco and as it flew so well I opted to build the wide bodied version, Wide Bronco. Though the span is only 16" the fuselage is 2 1/2" wide.



I built my first rubber powered balsa and tissue flying model about seventy five years ago and have continued to build them sporadically throughout my life, so I am not a novice, but even so I have found building a Legal Eagle quite a learning experience and a challenge. Handled by old fingers 1/16" square stringers of soft balsa are fragile things. So fragile and easily crushed that I could not use the steel building board and magnets I normally do. So a wood building board and pins have been reverted to.



In the past few years more glues have become available to us, but unfortunately as CA and epoxy became more common there was an unrelated withdrawal of traditional aeromodeling balsa cement. The closest it seems possible to get now is Duco, and that I found to be lacking in wetting power. In my experience CA is not very satisfactory on soft, porous balsa and the slightest adhesion of a finger or a tool to the wood is likely to result in a broken structure. So I have mainly used Aleene's 'Wood Glue'. This has an ideal consistency and though water based it gains strength quite quickly, but you are talking hours rather than minutes.

At every stage of the building of the airframe I was reminded how gently it had to be handled, a number of breaks in the stringers of completed parts of the structure had to be repaired and that all added weight, but at last the time came for covering. Because of the light structure the tissue covering must be preshrunk and on the wings and tail it is applied only to one side. After making a trial with diluted Aileen's glue I decided instead to use an Elmer's 'School Glue' stick. This goes on purple so it is easy to see that it is being applied evenly and where needed. As it dries it turns clear. The tissue applied quite easily and quickly and I was pleased with the job I had done. But as the old silent movie subtitles so often said, "Came the dawn - - ". Talk about warped.

In the Summer I use a screened porch as my workshop and the tissue was applied during the high humidity days of late August. After completing the covering I had moved the airframe indoors and by morning the lower humidity in the house had caused the tissue to shrink and distort the flying surfaces, the stabilizer could have been used as the propeller. The tissue had been pre shrunk, but apparently it had not done shrinking. So I soaked the remainder of the sheet, let it dry in the sun and ironed it before I re-covered the airframe with it. So far it has remained fairly stable.

The propeller is built from 1/32" balsa sheet, the blades being molded over the cylindrical surface of a suitably sized can in the well-known manner. A lot of time and finesse can be put into propeller construction, but I have my doubts about how much difference in effectiveness there is between the simple and the sophisticated when it comes to propellers for these low speed, low power applications. Also my experience is that the propeller is so easily damaged when flying in the confined Brookhaven gym that it should be regarded as a consumable and not too much time spent in making it. Even the loss of a complete blade has not been found to hamper a plane's flight seriously.

By the time the building of Wide Bronco was finished it had had quite a few repairs made to broken balsa and the patches of new covering made it look anything but new. The stabilizer was still reacting to changes in the weather and so it was kept clamped flat right up until it was time for the first flight at the Brookhaven gym on Tuesday September 25th.. With 150 turns on the rubber it was launched very gently from shoulder height and the flight path was a rather steeper than expected descent. With 300 turns for the second launch level flight was sustained for about half a circle. With 450 turns there was a climb with very mild proposing. At 650 turns the flight was again downwards from the launch and it was concluded there may be too much propeller down thrust. By now it was time to quit the gym and go home and consider what had been learned. The original Lite Bronco had also been given some flights and the comparison was interesting.

The most obvious and surprising fact was that the Wide Bronco flew significantly slower than the Lite Bronco. I cannot imagine the wide bodied plane is the lighter of the two and they have identical wings (though it does not appear so in the photo), so it seems that contrary to what I had been led to expect the wide fuselage is providing lift which more than compensates for its extra drag. If all goes well the Wide Bronco will be flying again next Tuesday, probably with a few modifications and improvements. It is good to be back to building for rubber power again and flying free flight indoors is very definitely a challenge.

Murray Wilson

Country's first long-distance, residential drone delivery touches down in Montgomery County (Virginia) neighborhood

By Jacob Demmitt jacob.demmitt@roanoke.com
Aug 7, 2018.
Photos by MICHAEL SHROYER | Special to The Roanoke Times

BLACKSBURG — It took eight minutes from the time a woman hit order on a mobile app until one of Wing's drones traversed 1.4 miles and came buzzing overhead on Tuesday afternoon with a package of ice cream and other frozen treats in tow.

Jackson Smith trotted into his yard to retrieve the cardboard box, and like that, the 2-year-old from rural Montgomery County became the recipient of the most advanced drone package delivery to ever occur in the United States, according to those who conducted Tuesday's operation.

Until now, Wing, a subsidiary of Google's parent corporation Alphabet, hasn't been allowed to fly long distances, over people and beyond the pilot's line of sight. That changed when Virginia was selected as one of 10 areas to participate in an experimental program that would lower barriers on the technology.

Wing showed off what it could do with those new rules on Tuesday, and the result was an ice pop lowered directly to Jackson's yard in under 10 minutes.

“You did see something historic today,” Earl Lawrence, director of the Federal Aviation Administration’s Unmanned Aircraft Systems Integration Office, said. “They can share the fact that the U.S. does have package delivery in its future.”

The event was a demonstration of the kind of service Wing hopes to launch on a larger scale soon. The company is planning a major outreach campaign before the service becomes commercially available to actual customers.

According to the state’s application for the UAS Integration Pilot Program, Virginia proposed three areas for package delivery through a partnership with Wing: Wise County, Montgomery and Roanoke counties and Loudoun County.

Organizers have stressed that the list is subject to change, but Wing intends to launch the country’s first drone delivery service that would reach real customers in residential neighborhoods as part of the program.
James Burgess, CEO of Wing, said the company is still gauging interest from localities before it decides when and where the service will be available. The company is only going to go where it’s wanted, he said, but the plan is for the full launch to happen “in the near term.”

For now, Wing and Virginia Tech's Mid-Atlantic Aviation Partnership (MAAP) have set up a "nest" — a sort of parking lot for drones — at Virginia Tech's Kentland Farm located along the New River about seven miles from downtown Blacksburg.The company stressed it is only conducting demonstrations of the technology there for now and has not yet launched a commercial package delivery service.

Montgomery County Board of Supervisors Chairman Chris Tuck said he has heard concern from locals who are worried that drones are going to hover over their homes with privacy-invading cameras. He said demonstrations like he saw this week will help clear up some of the misinformation. He added that the program has unanimous support from the county's elected board of supervisor"I don't know how this is going to develop," Tuck said. "I don't know that the Wright brothers knew how the airlines were going to develop. But that's what we could be experiencing, and I want us to be on the leading edge of that."

Tuesday's event also offered a rare glimpse into technology that has been in Google and Alphabet's labs for six years, but is only now becoming accessible by the public.
Burgess said the aircrafts each weigh around 10 pounds and can carry packages up to three pounds. The range is six miles for now and the company doesn't fly in inclement weather — but engineers hope to improve that performance.

The body of the aircraft is made largely of foam, with 12 propellers to offer vertical lift like a helicopter and two horizontal propellers that allow it to fly around 85 mph.

Wing and the MAAP invited The Roanoke Times, along with local, state and federal elected officials to watch the system in action Tuesday.It begins when a customer uses a mobile app to select items, checkout and pay. Burgess said that alerts the vendor, which could be anything from a local restaurant to a convenience store. Employees there load the box and then scan a barcode when it's ready for delivery.

"When the merchant scans the package, that's what initiates the aviation side," Burgess explained. Wing's automated system begins checking the airspace for other aircraft and no-fly zones. It finds the landing zone and plans a route. The drones, meanwhile, wait on charging pads outside.
The computer chooses which drone is ready for the flight. Then it takes off and flies autonomously while a human pilot stands by in case an intervention is necessary.
The drone flies from the nest to the merchant. A worker there hooks the package onto a string dangling from the drone. The package is drawn up and the drone continues on to the final destination.But the customer doesn't see any of that.

From Jackson's perspective, his mom hit the order button and within minutes he had an ice pop in hand — and a yard full of onlookers there to watch the feat.

"Previously we've only been able to operate in test locations or under very restricted sets of operations, unable to go into residential communities to perform deliveries," Burgess said. "So today we saw our first residential deliveries in an uncontrolled environment."

Drexel Students Fly at CA Field "Redux"

By Dave Harding

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If you enjoyed last month's article on the Drexel engineering students working with Dave and Chuck to design and fly their first fixed wing aircraft, then **click on the image below** to see Pedro's video on the topic, ending with a look at the competition maiden flights.