The Flightline

Volume 49, Issue 2 Newsletter of the Propstoppers RC Club AMA 1042 February 2019

President's Message

Hi all. I just thought I'd send a few reminders of the coming day. After all, the 14th is coming. We don't want to forget, do we? It's the day we remember our wife, the love of our life, our sweetie. She's the one who looks the other way when we bring another big box in the house, the one who sits in the hot sun and watches YOU have fun. They do all this. Don't you think they deserve a special day?

Now something a little different. We got the warm stuff covered. Now we cover the cold. It is nasty out there. We really should keep this weather in mind. Especially your ears and hands. The cold can creep up on you so quickly, it ceases to be fun. Take Care. Be safe.

Chuck Kime
President

Inside This Issue

Agenda for January 8th 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:
   President's review of field operating hours:
   Safety Committee review:
5. New Business:
6. Show and Tell:
7. Adjournment

Minutes of the Propstoppers Model Airplane Club
Taken by Dick Bartkowski, Secretary

January 8, 2019 at the Gateway Community Church meeting room

Call to order took place at 7:08 PM by President Chuck Kime

Minutes of the December meeting were approved as published.
Treasurer's report was given by Pete Oetinger
Roll call showed 16 members present

Old Business:
President Chuck Kime reported that former president Dick Seiwell has been hospitalized for several weeks but his full condition is not known.

There was a discussion of flying rules and times at Elwyn Field. The group agreed on Sunday hours of 10:00 AM for electric, Noon for others with flying till dusk.

At the Christian academy site Sunday flying will be Noon to dusk but Saturday 10:00 AM to dusk. Weekday times are still under discussion. The President agreed to review flight rules and times with the Church to clarify their needs and concerns. Given the change in occupancy of the Church buildings, it was suggested that we might be able to extend the flying hours on weekdays.

New Business:
The club also discussed boundaries for flying at each field. This was prompted by several incidents of flying near houses as reported to the club. This was referred to the Safety Committee for consideration in their ongoing review. A final proposal for revised Safety Rules will be presented to the membership as soon as the Committee has finished the review.

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Webmaster
Pete Oetinger
Propstoppers Web Site; www.propstoppers.org

2018/19 Indoor Flying at the Brookhaven Gym

Saturdays 6:30-9:00 pm.

Feb. 16, Mar.23, Apr. 13

Flying after Tuesday Breakfast 10.00am

Show and Tell:

Larry Woodward showed his recent projects incorporating aluminum sheet material in foam airframes. He has formed firewalls and motor mounts by cutting pieces from thin metal sheets. It seems to be lightweight and holds up well under field conditions.

Andy Peterson returned with an update on his collection of 1944 Wheaties box top aircraft prizes. He has been working with Larry Woodward to find the correct card stock and computer scanning technique to make copies of the WWII warbirds available to Propstoppers. Larry currently has two models ready for printing, a Mustang and a Zero. He has a small supply of the correct thickness card stock as well. Anyone interested in trying out these models can contact Larry and he will send you the files to print on your inkjet printer along with some card stock.

Andy also showed his collection of boomerangs that he flies in a large area.

Al Tamburo showed an electric powered Simplex that he scratch built from scrap balsa in a week. He says it is easy to build and a really good flyer that has been very successful in competitions.. It has a brushless motor and 10/6 prop.

Ken Merlino showed a Berkeley Mini Zilch that he got from Dave Harding. It is powered by a small .061 Norvel, a Russian RC.fuel motor.

Adjournment took place at 8:21 PM

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.
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; 12 pm till dusk
At Elwyn Field; Fuel or Electric
Monday through Saturday 8 am till dusk
Sunday 10 pm till dusk for Electric, Noon till Dusk for Fuel.
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.

2019 DUES ARE NOW REQUIRED

Membership renewal for 2019 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

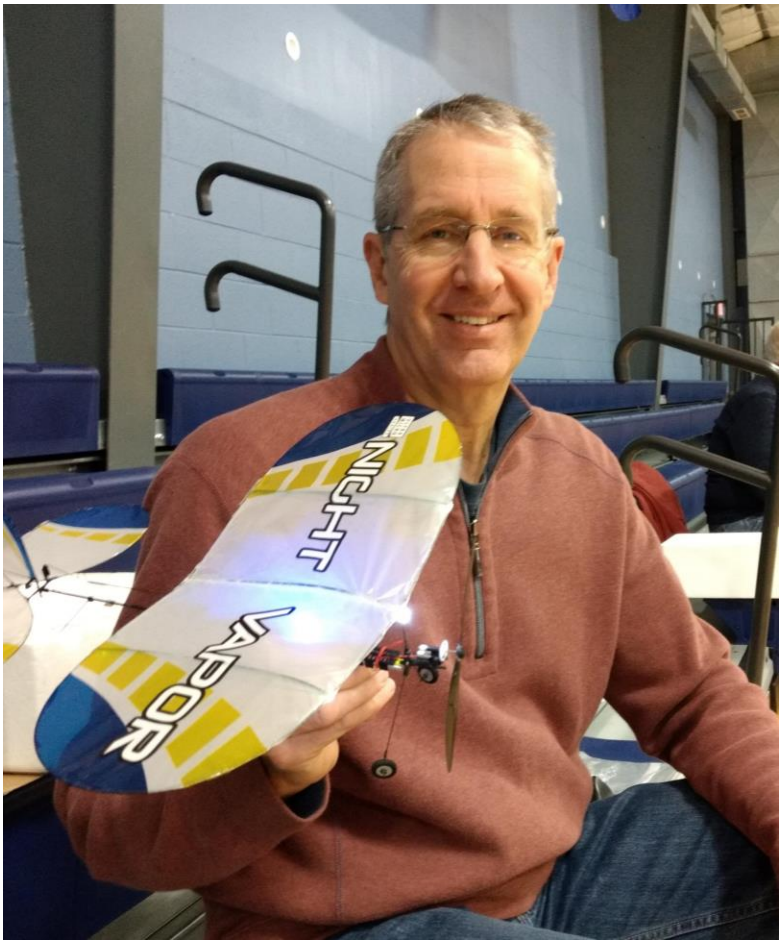
Please enclose a ***copy*** of your current
A. M. A. Membership card,

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

Ray Wopatek Membership Chairman

Editor's Note:

Pete Oetinger takes on the job of Webmaster:



Pete Otinger, already serving as Club Treasurer, has agreed to take on the additional job of Club Webmaster.

In the past, the Webmaster job was essentially handled by the Newsletter Editor. Given the amount of work needed to produce the monthly Fliteline, it is no surprise that the web page has suffered from lack of attention. Other than posting the newsletter to the index page, not much else has been updated in the web site for many years.

Our newsletter mailing list on Yahoo Groups is open to anyone to join. As a result we have many non-members who subscribe just to get to read our newsletter. And many of them have sent in messages congratulating us on putting out a first class publication. But from time to time, I get some helpful comments about how to keep it in top shape. For example, several readers have pointed out how out of date the Interesting Links Page is.

Pete has started updating the Links Page and will be continuing to improve and update our electronic information capabilities in the future.

Under the newly revise Bylaws, the Webmaster has been designated as a standing Officer's position with the following Duties and Responsibilities:

i. "Establish and maintain the Club's official web presence on all suitable and relevant internet platforms and media as directed by the Executive Committee.
ii. Post regular newsletters, forwarded by the Newsletter Editor, on the Club web site.
ii. Receive and forward to the appropriate Officer(s) any emails, inquiries, requests, etc. posted via the Club web site."

Let's all give a big vote of thanks to Pete for taking on this important task.

AMA Expo East and Lebanon Swap Meet not far off

Two big winter events are not far off.
The AMA Expo East at the Meadowlands Center in New Jersey is coming up February 22-24, and the Lebanon PA swap meet is March 9th.
These events are always a fun day out even if you don't come back with a car load of great deals. Let others know if you are planning to go and would like to car pool.

Check Your FAA Registration Status

AMA has received a lot of questions regarding FAA registration requirements and how to renew current registrations. If you recall, the regulation for registering qualifying model aircraft was initiated in 2016. At that time many of us completed the registration process and established an account with the FAA and were issued a FA number to be displayed o all our aircraft. Then later in 2017 the registration requirement was rescinded due to court challenges. At that time, some individuals chose to request that their FAA registration be canceled.

Then, On December 12, 2017, Congress reinstated FAA registration for all unmanned aircraft weighing over .55 lbs (250g). For those that registered before this date, the FAA extended their registration expiration date to December 12, 2020. However, any individual who specifically requested that his or her name be taken off the FAA registration database no longer has an FAA registration number in the system and would need to process as a new registrant.

If you are uncertain whether or not you have a valid FAA registration, you can access your FAA account at https://faadronezone.faa.gov/#/. This site will allow you to view your personal FAA registration number and expiration date or to create a new account. I checked my account this week and was able to print out a new registration card with the extended expiration date. Be certain to select the registration option under Section 336. This is for members of qualifying organizations such as the AMA. The option for Part 107 is for non AMA members and commercial pilots.

Be very careful to avoid registering your model aircraft anywhere but at the official FAA website above. If you register under Section 336, the fee is $5.00 for a three year registration and hobbyists receive one identification number for all the aircraft he or she owns. **Please be aware of unofficial registration websites that look like an FAA site and that charge exorbitant fees or require separate registration fees for each recreational aircraft.** I was almost sucked in by one such site at "drone-registration.net" that was going to run up a significant bill for a bogus photo ID, information stickers and a scan-able "tracker" code. If the site URL you are looking at does not end with …faa.gov/ then it is not the government site.

If you have any questions regarding your FAA registration login, please call the UAS Registration Help Desk at 877-396-4636. Keep in mind, this office is not open during the partial government shutdown. For any other questions or concerns, contact AMA's government affairs team at 765-287-1256 ext 236 or amagov@modelaircraft.org. The latest information can be found at www.modelaircraft.org/gov, *Model Aviation*, and on social media.

In Memoriam

Richard "Dick" Seiwell

1944-2019

Richard E. Seiwell, age 75, of Middletown Twp., Media, PA, died Friday, January 11, 2019. Husband of the late Coralynn Seiwell and Father of the late Jennifer Seiwell. Mr. Seiwell was a US Air Force Veteran.
Survivors:
Daughter: Elizabeth Seiwell (Erik)
Step-Daughter: Janice MacCready
Step-Sons: Chuck (Sara), Andy (Tina) and Scott Langzettel
Brother: Robert (Suzanne) Seiwell
Also survived by several Grandchildren and Great-Grandchildren

Dick was a member of the Academy of Model Aeronautics and The Proppstoppers RC Club for nearly 50 years. He was elected President of the Club in 2005 and, upon retirement from the position in 2018, he was the first Club member ever named President Emeritus.

Over the decades, he played a key role in the acquisition and maintenance and improvement of the Club's flying fields. Without his dedication, perseverance and selfless work it is difficult to say if we would be enjoying the excellent flying venues we have today.

Always a keen pilot and enthusiastic modeler, Dick enjoyed a wide variety of aircraft types and flying styles. He was particularly fond of showing off his inverted flight. Above all else, he proffered a cheerful character and friendly face to everyone he dealt with, on and off the field. He was a welcoming and supportive friend to every member.

He will be greatly missed.


NC26397


N182SL


FLATANA


Benny Boxcar


Go Long
with the
Flying Team
of
Virginia Tech.
SUN PILOT
ZOOM PILOT


JOHN DEERE

Using Aluminum Sheet in Foam Construction

By Larry Woodward

Although I have nothing but respect and admiration for a well-built balsa model, I limit my models, for the most part, to foam. Whether scratch built of store bought, you can't beat foam for an easy and inexpensive model to build or buy and, perhaps more importantly, to repair. The clean breaks and simple glue-together processes that foam allows are key to my fly-crash-repair-fly cycle.

However, there are always those pesky little areas that just need a more "beef" than foam can provide. For motor mounts and high stress areas the usual answer is molded plastic for manufactured models and thin plywood for scratch-builds. These are fine until you have a serious crash. When stressed these materials tend to shatter into pieces too thin of too numerous to glue back to anything like the original strength. So I have always been looking for some other material that would combine light weight, strength and reparability. Of late my go to material is thin sheet aluminum plate or coil stock.

Figure 1.
"L" shaped bracket for FT Power Pod

Figure 1 shows a simple motor mount replacement for the usual plywood "firewall" used in my Flitetest power pods. The simple L shaped bracket is easily fastened to the foam with tape or glue. In a crash the metal will bend and absorb some of the impact, which helps protect the motor. It is then easily straightened out with plyers and put back into action, no worse for the wear.

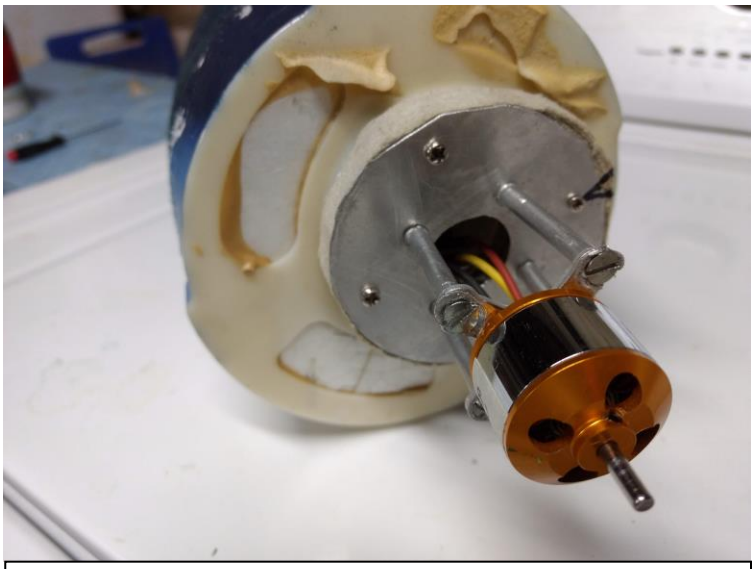


Figure 2.
Aluminum base plate with tube and long screw standoff.

Figure 2 shows a replacement motor mount/stand-off that I made for a manufactured Corsair that lost the original factory mount in a crash. The aluminum base plate is screwed to a Homosote pad that helps protect the plastic base from impact stresses and vibration. The stand-off is made from aluminum tubes with long threaded bolts inside that attach directly to the motor X mount. This worked only "okay." After multiple crash cycles the screw holes got too stressed to retain lateral stiffness in the assembly.

Figure 3 shows my most recent style of stand-off/motor mount on another manufactured model P-51 Mustang. This design is much simpler to make than the tube and screw design used on the corsair. It is also stiffer and more durable. The simple "U" shaped bracket with mounting flanges is easy to shape and attach. It results in a very stiff assembly with a unique "failure" mode that absorbs much of the impact in a crash.

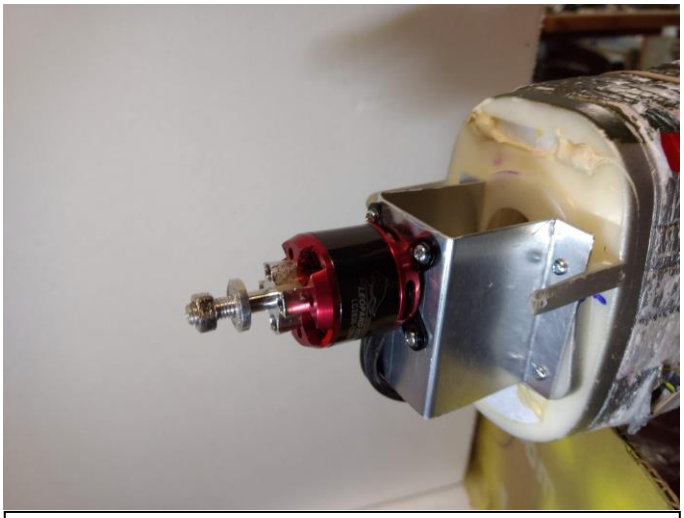


Figure 3.
U shaped bracket mount

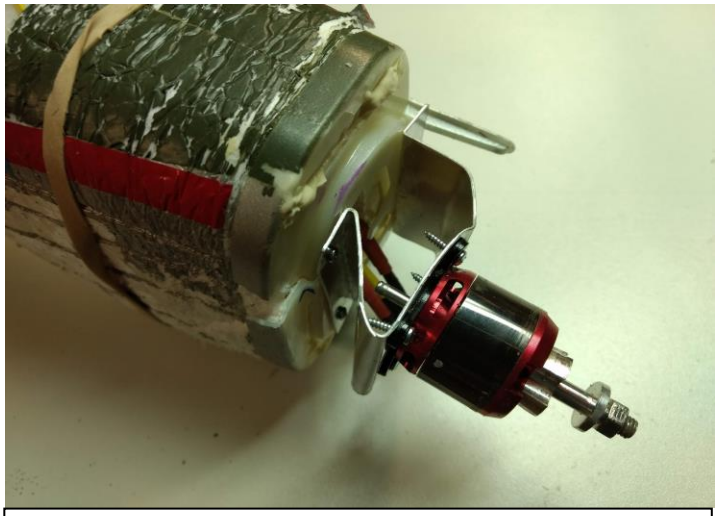


Figure 4.
U shaped bracket after crash

Figure 4 shows the same mount after a particularly bad head on crash to the ground. Note how the assembly simply buckled to the side. It was only a matter of a few minutes with plyers and a wood block and hammer to bring it back to working shape. See **Figure 5**. The plane was otherwise not significantly damaged and back in the air the next morning.

Figure 6 shows another use for these materials in the reinforcement of the battery hatch and landing gear assembly on a Super Cub.

On this model the battery compartment is integral with the landing gear mounting slot. This plastic assembly is mounted into the molded foam underside of the fuselage. There are additional plastic "strut wings" that parallel the gear legs and add some measure of support.

Figure 5.
Simple repair process

These plastic components from the factory built model are not particularly strong. When the model has a less than ideal landing the stresses on the landing gear are transferred to the battery box assembly and the result is an eventual tearing of the box from the surrounding foam. In addition, the plastic parts, especially the gear "strut wing" supports are prone to breakage.

So, my solution was to use aluminum strips to reinforce the foam along the joint where the battery box mounts into the fuselage. These were simply epoxied to the foam under the battery hatch cover. The assembly was then screwed through the cover into the underlying aluminum.

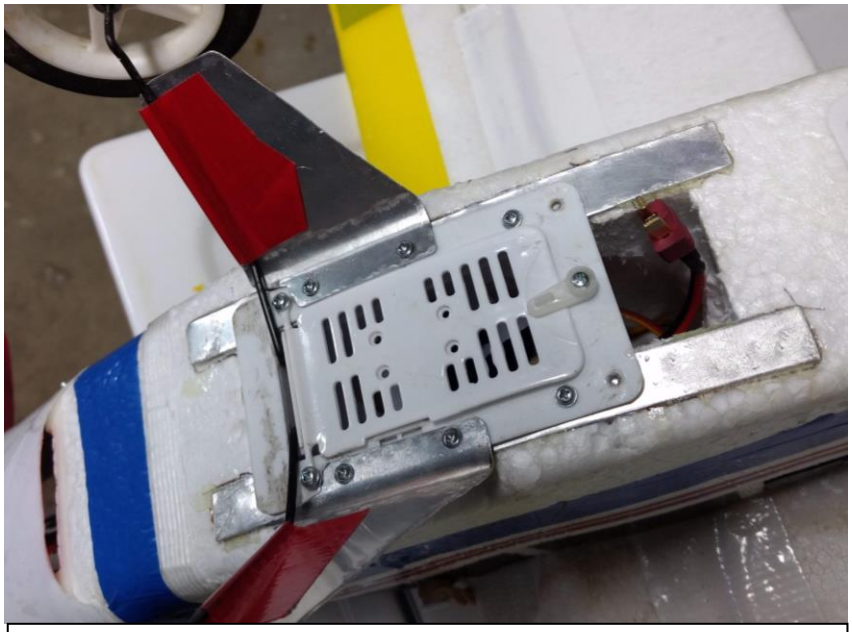


Figure 6.
Super Cub under carriage reinforcement.

The plastic “strut wing” supports were reproduced in aluminum and attached to the gear with tape, which allows for flexible support of the gear. The results have been excellent in subsequent landings. Worst case scenario has been a hard landing requires only a little straightening of the “strut wings.”

Note the extra space carved out of the fuselage bottom beyond the battery hatch. This space was excavated out of the foam to enlarge the battery area enough to accept a 2200 size 3S battery. This would probably have weakened the fuselage too much without the added strength of the aluminum strip reinforcements.

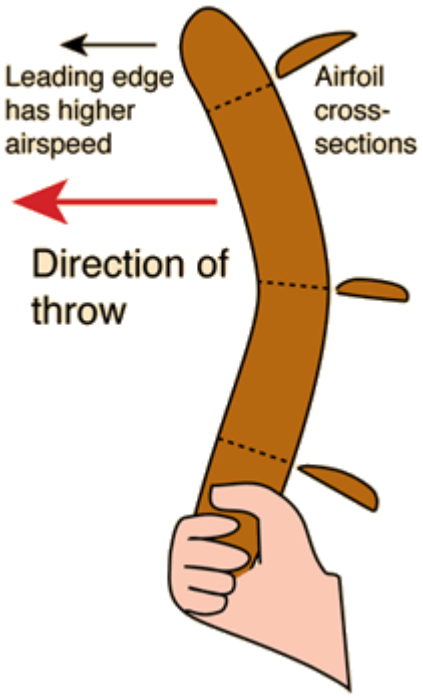
One problem in this whole idea is finding suitable aluminum material. Generally, the aluminum coil stock (flashing material) sold in home stores and supply yards is very thin, 0.0125.” Suitable material will be in the area of 0.032.” I was able to locate one and two square foot sheets of this material on Amazon. It may also be found at industrial and scientific supply houses.

Boomerang

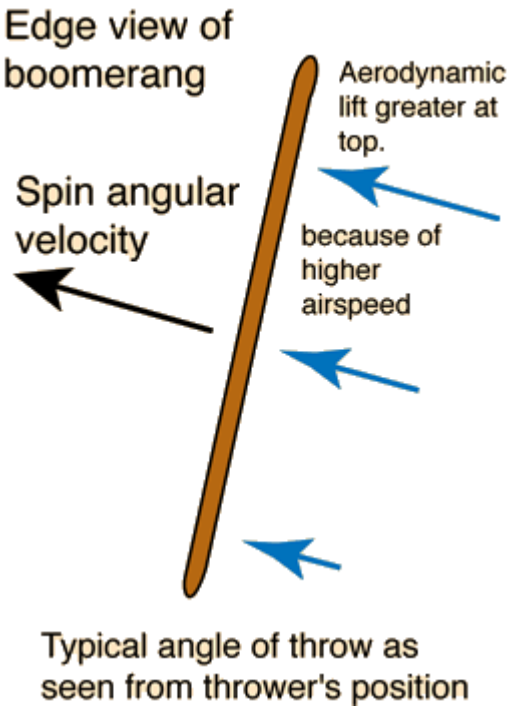
By Andy Peterson

At the January meeting, Andy Peterson presented his collection of boomerangs and gave a brief explanation of their aerodynamic characteristics and social history. He offered the following technical information in support of the presentation. If you are interested in learning more about these fascinating aircraft or would like to give one a try in the field, just give Andy a nod.

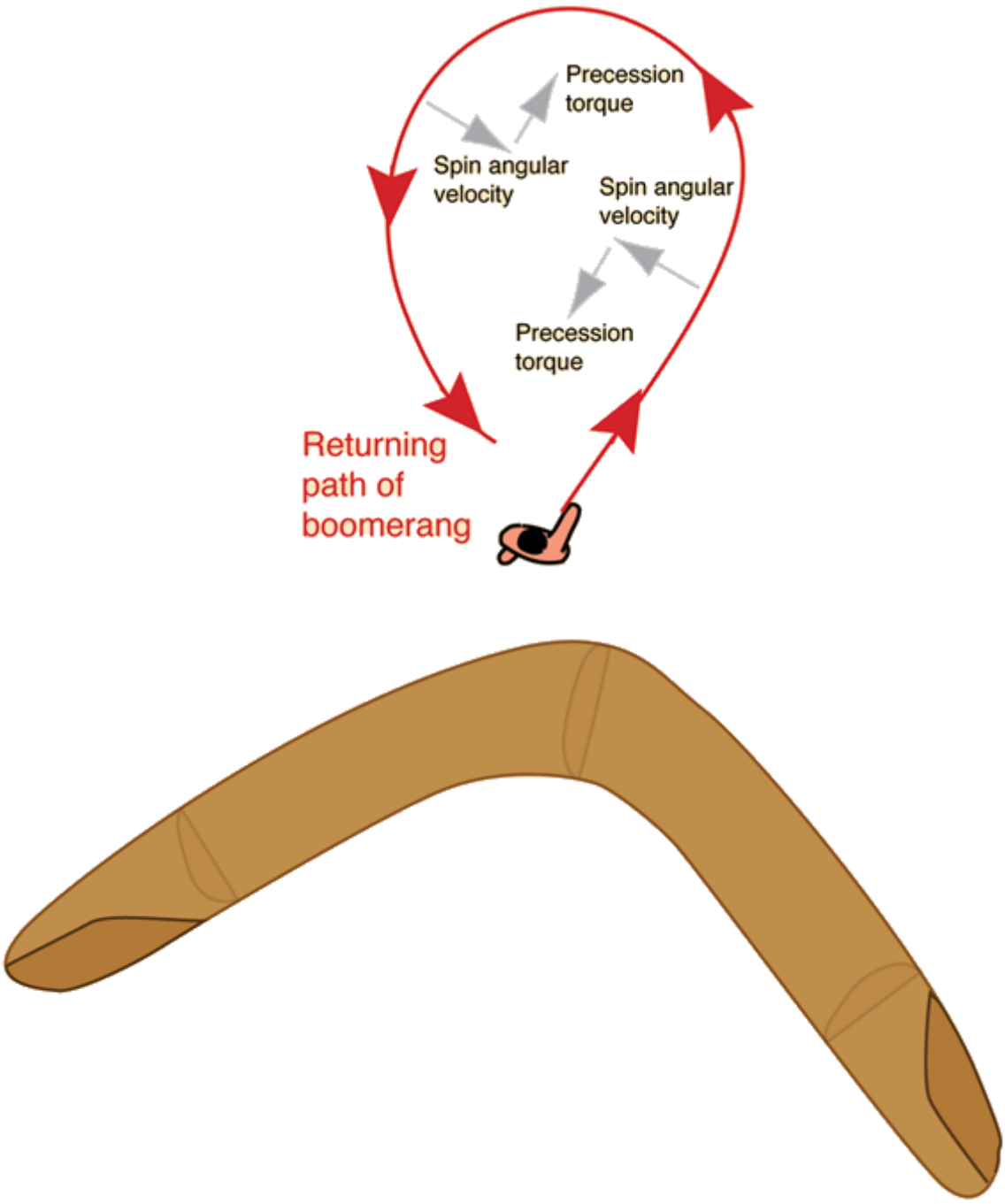
Contrary to popular belief, the boomerang did not originate in Australia. Historical traces of boomerangs have been found throughout the world. Boomerangs are considered by many to be the earliest "heavier-than-air" flying machines invented by human beings. Australian Aboriginal boomerangs have been found as old as ten thousand years old, but older hunting boomerangs have been discovered throughout Europe.



A boomerang is an example of gyroscopic precession. The popular variety at left is thrown by grasping it at the bottom and throwing it so that it rotates about an axis perpendicular to the plane shown. This plane is tilted enough from the vertical enough to get enough lift to keep the boomerang airborne. The cross-section at each end is shaped as an airfoil with its leading edge pointed so that it is facing forward when that end is at the top. The airfoil causes it to "fly" in the direction thrown, but the higher aerodynamic lift on the top end creates a torque which causes the angular momentum to precess, gradually changing the heading of the airfoil and moving it in the curved path.



Typical angle of throw as seen from thrower's position



Typical Boomerang

Boomerang Art

Boomerangs for Hunting

Bell's hybrid-electric flying car will be available via Uber by the 'mid-2020s'

From the makers of the V-22 Osprey
By Andrew J. Hawkins@andyjayhawk Jan 7, 2019, 3:58pm EST
https://www.theverge.com/2019/1/7/18168814/bell-air-taxi-nexus-uber-flying-car-hybrid-ces-2019

This is Bell Nexus, the "air taxi" concept from the company formerly known as Bell Helicopter. A hyrbid-electric propulsion aircraft, the Nexus will use six tilting ducted fans to take off and land vertically from a rooftop or launchpad. And more importantly, you may be able to hail one for a crosstown trip using Uber's new aerial service in the not-too-distant future.

Air taxis, or flying cars if you're feeling saucy, are enjoying an upswing in popularity, and the Fort Worth, Texas-based Bell is hoping to seize the moment. The company rebranded itself last year as a technology company, after decades as one of the top manufacturers of commercial and military vertical takeoff and landing (VTOL) aircraft. (It produces both the V-22 Osprey and the forthcoming V-280 Valor.) It now wants to make electric VTOL (eVTOL) aircraft, with the Nexus as its first foray into that futuristic market.

Bell was one of the first aircraft manufacturers to team up with Uber in 2017, when the ride-hailing company first released its ambitious plan to create a network of city-based flying taxis as a way to alleviate street-level traffic. Since then, Bell has been hard at work on its own design, and at CES this week, it pulled back the curtain on its first concept.

Bell is aiming to have the Nexus in flight over a handful of major markets by the “mid-2020s,” said Scott Drennan, director of innovation at Bell. He argued that the key element about the aircraft was its “approachability,” which makes it the ideal vehicle for this proposed flying taxi service.

“This is not a toy,” Drennan told *The Verge*. “This is an aircraft you would feel safe and comfortable bringing your family into.” The large ducts hide the rotors, which should help ease any anxiety from customers about losing a limb from its fast-spinning blades. In other words, “for people who aren’t accustomed to VTOL type aircraft,” Drennan said — which, arguably, is everyone who doesn’t regularly commute via helicopter.

Last

year, Bell showed off the cabin of the then-unnamed air taxi, in effort to generate some buzz about its forthcoming plans. This year, it just has a scale model, and won’t have a workable prototype until the company is on the cusp of launching a real service. But Bell is ready to talk about some of the design choices that went into creating the Nexus.

Drennan said the Nexus can seat five people, and has a gross weight capacity of 600 pounds (272 kilograms). Bell went with a hybrid-electric propulsion system, rather than an all-electric one, so the

aircraft could fly further and carry more weight. That's because Bell doesn't want the Nexus to be pigeonholed as just an air taxi. In this way, the company can hedge its bets in case this whole flying car craze we're seeing these days doesn't actually pan out.

"As we were looking at the available missions, whether it was air taxi, or logistics services, or even just applications in the military, we thought it was appropriate to get out into the longer range than just what the all-electric vehicles can do," Drennan said.

Bell may have other motives in joining the hype parade at CES than just showing off a cool air taxi concept. The helicopter industry has experienced one of the sharpest disruptions caused by the slide in global oil prices. Bell is owned by global aerospace conglomerate Textron, which also includes Cessna Aircraft, Beechcraft, and other flight companies. A pivot from helicopters to electric VTOL would be a signal to investors that the company is looking toward the future.

In 2016, Uber first introduced its plan to bring its ride-sharing capabilities to the airspace over cities, but the project still faces significant hurdles. The kind of aircraft Uber envisions shuttling passengers from rooftop to rooftop — electric, autonomous, with the ability to take off and land vertically — don't really exist yet, nor does the infrastructure to support such a service. Experts suggest that engineering and regulatory hindrances may prevent flying cars from ever taking off in a meaningful way.

That's not to say flying cars aren't having a moment: at least 19 companies are developing flying-car plans. These include legacy manufacturers like Boeing and Airbus, and small startups like Kitty Hawk, owned by Google founder Larry Page. Meanwhile, Uber has made significant strides in partnering with a handful of aircraft manufacturers, real estate firms, and regulators to better its chances of developing a fully functional, on-demand flying taxi service.
Only all-electric VTOL aircraft will be included in Uber's air taxi service, though, which would seem to preclude a hybrid propulsion system like Bell's Nexus vehicle. That said, Mark Moore, engineering director of aviation at Uber, said the concept was an important "first step" toward an all-electric, fully commercial flying taxi service.

"This will permit testing to occur in the near-term, while the batteries are getting ready for all-electric solutions," Moore told *The Verge*. "We're very excited about what Bell is doing. There are many companies out there developing [eVTOL] demonstrators. At Uber, we're facilitating this entirely new transportation system because we are the link to the users."

A Moment in Flight:

Flight Video by Pedro Navarro

This month features the venerable WACO biplane that saw it's hayday in the swinging years between the World Wars. The music track is appropriately taken from the same era with the Glenn Miller Orchestra swing classic "In the Mood."

Click here to see this month's Moment in Flight.