The Flightline

Volume 44, Issue 11 Newsletter of the Propstoppers RC Club AMA 1042 November 2014

President's Message

Don't forget this is the start of the indoor flying season. Check the newsletter for times and dates.

The monthly club meetings will start at 7:15 doors open at 7:00 and over ???. We will talk about trips the club can take, things we can do at the indoor events etc..

As always we all like show & tells so please bring them. If you have something you want to sell or trade bring it in you could get lucky. Maybe we should have a 50/50 drawing.

We are still looking for a volunteer to take over the club website and add a calendar to it.

See you at the meeting

Dick Seiwell, President

Agenda for November 11th Meeting At Gateway Community Church, At our CA Field site; Meeting 7pm till 8:30?

1. Show and Tell
2. Membership Report
3. Finance Report
4. Club Calendar Review
5. Officer Election Results

Minutes of the Propstoppers Model Airplane Club
October 14, 2014 at the Christian Academy meeting room

Call to order was at 19:08 by VP Chuck Kime

Roll call the membership chair Ray Wopatek showed 16 members and 3 guests present

Minutes of the September meeting as published were accepted

Treasurer's report was not presented

Old Business:

President Seiwell received a call from the minister to say that the church was very pleased with our flying demonstration and candy drop at the recent full picnic.

Joe Paradine thanked the members of the club who pitched in to retrieve his plane from a tree.

New Business:

Nominations for the board were opened by President Dick Seiwell. The current board was re-nominated and no other candidates were offered. In that case the nominees are considered elected.

Officers for 2015 are:

President: Dick Seiwell

Vice-President: Chuck Kime

Secretary: Dick Bartkowski

Treasurer: Pete Oetinger.

INSIDE THIS ISSUE

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; 11th November

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.
Club Officers

President Dick Seiwell
(610) 566-2698
reslawns@verizon.net

Vice President Chuck Kime
chuxtruk@yahoo.com
(610) 833-5256

Secretary Richard Bartkowski
(610) 566-3950
rbartkwoski@comcast.net

Treasurer Pete Oetinger
610-627-9564

Membership Chairman Ray Wopatek
raywop@gmail.com
(610) 626-0732

Safety Officers
Eric Hofberg
bgsteam@comcas.ne

Ryan Schurman
throttle152@hotmail.com
(610) 565-0408

Newsletter Editor
Dave Harding
davejean1@comcast.net
(610)-872-1457

Propstoppers Web Site; www.propstoppers.org

Show and Tell:

Murray Wilson showed a new feather light receiver from lemon – RX. They are quite inexpensive; $5.75. They are only for spectrum transmitters.

Larry Woodward showed his planes from the Flight Test group. All their planes utilize a common power pod. The group has plans for planes that are appropriate for beginners to sport flyers. He showed three of his planes all made from foam sheets held together with hot glue. Their plans or kits are available from their website. http://flitetest.com/articles/ft-spitfire-build

Adjournment took place at 7:50 PM

Dick Bartkowski, Secretary

Indoor Flying Season Dates 2014 - 2015

Tinicum School Gymnasium.

Friday, November 7, 2014
Friday, December ~~5~~ 12th, 2014
Friday, January 2, 2015
Friday, February 6, 2015
Friday March 6, 2015

Brookhaven Borough Gym dates;

Saturday Nov. 15 2014
Saturday Dec 20 2014
Saturday Jan 17 2015
Saturday Feb 21 2015
Saturday March 21 2015

All sessions are scheduled from 6:30 – 9:30 PM

Please remind the membership that no food or gum is allowed.

Guests welcome
Guests may fly with AMA membership. Introductory membership available at the meeting.

Print this sheet and post to your workshop

Larry Woodward's FT Spitfire Maiden Flight at Elwyn

Larry has been building a variety foam models, some from online plans and others from his own imagination. Here is his FT Spitfire on its maiden flight. It was a bit of a handful as the ailerons were soft but the rudder and elevator too sensitive; an easily sorted issue, although complicated by the multi-plane propulsion and control system that is moved from plane to plane. It is necessary to sort the control throws in the specific plane's linkage and leave the transmitter settings alone.

Great having a spot of long grass for those maiden flights…. Just in case!

You may recall my SeaBB 42 seaplane video from last summer. I have a couple of updates. The SeaBB42 is a relatively new design from the RCgroups web forum. It is an adaptation of another classic design, the Bue Baby. Well, the designer maintains a log of SeaBB42 builds and issues a registration number to anyone who submits photo/video evidence of a successful build. Here is my SeaBB42 sporting her new international registration. The "N" indicates it was built in North America and the "71" indicates this is the 71st registered build internationally. https://www.youtube.com/watch?v=I8iVMGfIBE0

Larry

Robin Hood Strikes in Elwyn

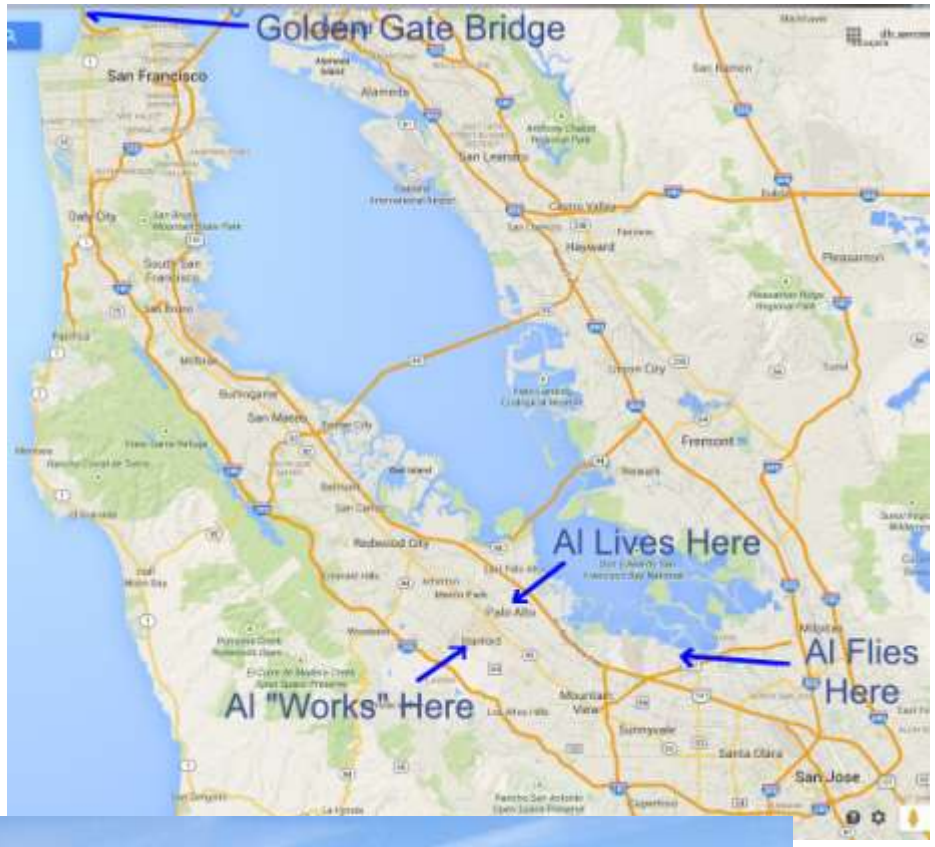
Well, this time it is Al Tamburro as the tree master. Our strength in plane removal from trees is the breadth of our resources. Dave Bevan has his magnificent eight foot catapult launcher, Chuck Kime has the wrist mounted catapult but Al has his trusty bow and arrow approach. Recently used to recover Joe Paradine's Aries Gamma 370 high in a tree at Elwyn. After nearly an hour of trying to get it free using every conceivable sort of device to get a line over the plane, Al Tamburro, aka Robin Hood, came to the rescue with his trusty bow and arrow.

Al Cheung Finds His Flying Site

Searching for flying sites around the congested Bay Area seems like a tough task, but Al has finally found one. Here's Al;

"Finally found a grass flying field. Public flying site Baylands Park in Sunnyvale CA.
Picnic benches, open pit BBQ's, food for sale, hardly any trees, and electrical outlets, but bring a power cord on a weekend!" …..

What more could he ask?



Secret space plane lands at US air force base after unknown two-year mission

Resembling a small space shuttle, the X-37B landed in southern California after 674 days in orbit on a secret mission Associated Press in Vandenberg Air Force Base, California

Still from video made available by the Vandenberg Air Force Base shows an infrared view of the X-37B unmanned spacecraft. Photograph: AP

A top-secret space plane landed Friday at an air force base on the southern California coast.

The plane spent nearly two years circling Earth on a classified mission. Known as the X-37B, it resembles a mini space shuttle.

It safely touched down at 9.24am Friday, officials at Vandenberg Air Force Base said.

Just what the plane was doing during its 674 days in orbit has been the subject of sometimes spectacular speculation.

Several experts have theorized it carried a payload of spy gear in its cargo bay. Other theories sound straight out of a James Bond film, including that the spacecraft would be able to capture the satellites of other nations or shadow China's space lab.

In a written release announcing the return of the craft, the air force only said it had been conducting "on-orbit experiments".

The X-37B program has been an orphan of sorts, bouncing since its inception in 1999 between several federal agencies, Nasa among them. It now resides under the air force's rapid capabilities office.

The plane that landed Friday is one of two built by Boeing. This is the program's third mission, and began in December 2012.

The plane stands 9.5ft tall and is just over 29ft long, with a wingspan under 15ft. It weighs 11,000lbs and has solar panels that unfurl to charge its batteries once in orbit.

The air force said it plans to launch the fourth X-37B mission from Cape Canaveral, Florida, next year.

Space Ship Two Disaster

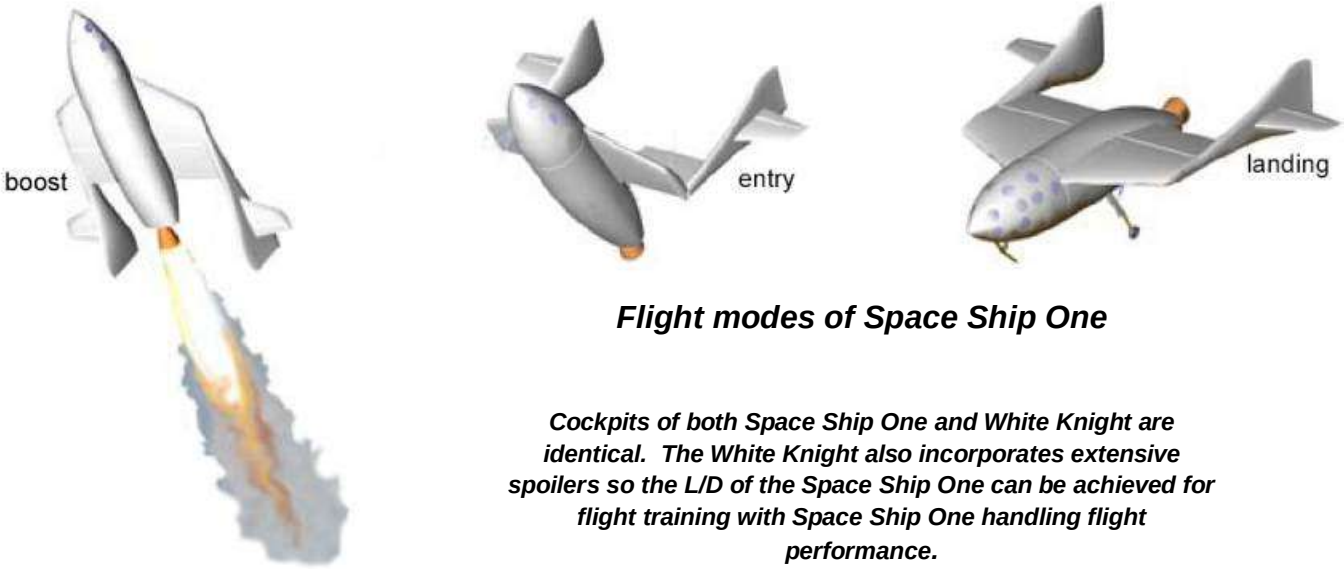
The description of the functional modes of Rutan/Virgin Space Ships in the media is not very accurate. Clearly the mother ship carries the Space Ship to altitude where it launches and rockets to space; in an airplane configuration.

After the weightless flight into space it begins the descent, eventually reaching the upper atmosphere. This is accomplished in the "dethermalized" configuration, just like our old free flight contest model airplanes with the tail tipped up to set the airplane in a flat descent. This stable very high drag configuration allows the space ship to slow rapidly while descending into the thicker upper atmosphere. The heat of reentry is minimized by the rapid deceleration in this configuration and is confined to the lower surface which is treated to take it.
Here is an actual picture of Space Ship Two in this flight configuration during a test flight in 2011

As the speed slows the configuration is once again returned to the airplane mode with the tail feathers trailed.

Apparently the space ship accidentally converted to the reentry mode during the initial climb out at high speed. A condition for which it is not designed

Here is how I described it following attending the roll out of Space Ship One in 2003;



Flight modes of Space Ship One

Cockpits of both Space Ship One and White Knight are identical. The White Knight also incorporates extensive spoilers so the L/D of the Space Ship One can be achieved for flight training with Space Ship One handling flight performance.

Using its own rocket for power, the space ship turns to the heavens then accelerates into space, reaching an altitude of 330,000 feet, or 100 kilometers.

At this point the space ship activates a “dethermalizing mode”, or at least that is what we modelers would call it (Burt doesn’t agree with this description because the aft portion of the wing, as well as the tail, flips up). In this configuration the spaceship falls in a stable, high-drag attitude (like a dethermalized model). As the speed diminishes during re-entry and descent to lower altitudes, the spaceship is re-configured to the more conventional glider configuration and is flown at low speeds to land at the starting point; ride over!

But at this point, with minor refurbishment of the thin ablative layer on the spaceship, the whole thing is ready to go again; NASA’s dream a quick turnaround reusable space ship!

A word about epoxies

Activity in the outdoor flying arena is dying down at this time of year and airplane building and repair take up more of our time. For the most part adhesives other than epoxies are satisfactory for our purposes, but for some jobs an epoxy may be best.

There are a few misconceptions about epoxies, the most popular being that they are similar to "Bondo" or fiberglass boat laminating resins. Those are polyesters, the two reactive components are already mixed together by the manufacturer and the user just has to add the catalyst in order to start the reaction. Usually the reaction can be speeded up or slowed down by varying the amount of catalyst used. Not so with epoxies, the reactive components are supplied as resin and hardener and they must be mixed by the user exactly as the manufacturer states, for in the subsequent cross linking reaction all the resin and hardener molecules should be reacted, any excess of either will degrade the cured epoxy. If the ratio is say 4:1 do not try to eyeball one mass four times as large as the other, put four similar dabs of resin and one of hardener on the mixing board. Don't add excess hardener in order to try and accelerate the reaction. It is important to mix thoroughly.

The surfaces where the epoxy is to be applied should at least be clean and dry, possibly roughened. The temperature should be at least 65ºF and maintained during the manufacturer's stated curing time. A little warmer is better, but avoid excessive use of a heat lamp or hot air gun as the applied epoxy may slump or run.

Primers are not normally necessary, but if bonding to any alloy of copper, most likely brass in our case, if possible tin the surface with solder. Epoxy pastes and putties can be smoothed after application with a wet finger, preferably gloved. (Exposure can cause dermatitis (skin inflammation), ranging from mild irritation to severe allergic rashes . Such allergies can last a lifetime; Ed.)

Allow ample cure time. The reaction is exothermic and small masses of epoxy such as we are likely to use dissipate their heat quickly due to the familiar 'surface area to volume' effect. On the other hand don't try to encapsulate an electronic component in an epoxy block using a resin intended as a coating, because the resulting exotherm might damage it.

Just as a point of interest, there are such things as 'B Stage' epoxies. These are usually laminating or impregnating resins which have been mixed with their hardener by the manufacturer and then kept refrigerated until use, for the reaction of most formulations is dormant below 45ºF or so. They are therefore not strictly speaking any 'single component' epoxies. The spray can paints in the hardware store labeled as "Epoxy" simply have reacted epoxy filler, they are not epoxy paints.

One last nugget of information. Fumed silica is often used to give 'body' to epoxy formulations; it is now also used to do the same for milk shakes.

Murray Wilson

Editor's Note;

If you use epoxy in a structural application you should be aware of their temperature sensitivity. These resins have a "glass transition temperature", Tg, specific to each product. Our 5 and 30 minute epoxies can soften at modest temperatures. I have experienced softening and bending of epoxy-graphite parts which have been left in my van during hot sunny days. I have a recording thermometer in the van and it has reached 120 degrees.

The good news is you can raise the glass transition temperature by post curing the part. The Tg can be raised significantly this way. The folks who build epoxy structures like fuselages and wings routinely post cure their parts in a "hot box". After they have cured they put them in an enclosure with an incandescent bulb and a thermometer to ensure the correct temperature is achieved and the parts don't get overheated. http://www.rcgroups.com/forums/showthread.php?t=440196

Dave