

the

Monitor

February The MRCS Officers 2012

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Newsletter Editor: Ken Myers	The Next Meeting: Date: Wednesday, Feb. 1, Time: 7:30 p.m.	

What's In This Issue:
Guest Speaker: Jim Young: Forming Canopies – The January Meeting – January Show and Tell – More on Plastics for Vacuum Forming or Pulling Canopies - Upcoming Events

January Meeting

The 7:00 video was an excellent one on the YF-22 and the history of pursuit and fighter planes.

Forming Canopies



Jim Young shared the techniques he uses to form canopies.

He shared a plug that he uses for Hughes H-1 kit. His kits are available: <http://www.tnjmodels.rchomepage.com/>

His plans and kits include: the Gloster Meteor, featured in this month's *Model Aviation*, 45" Waco YMF-5, LTR-14 Turner Special, Wedell-Williams Model 44, 30" Waco YMF-5, D.H.-88 Comet, Hughes H-1 and an Electric B-29.

He uses Plaster of Paris to form his plugs and recommends that you don't use Bondo to fill a mold for the plug. The plug should be designed to sit off the vacuum forming table and should have a draft to the front of back.

He recommends that the plug be glassed with lightweight cloth. West Systems epoxy is recommended thinned 50/50 with alcohol. West Systems 410 filler is used to fill any voids in the weave. The filler really sands nicely. It is carried by boat/marine stores. Jim mentioned

Helicopter Frequencies

21,27,29,39, 41

Sailplane Frequencies

11, 12

Wilson Marine as a supplier.

www.wilsonboats.com/

Duplicolor heavy fill body primer is used and the plug wet sanded with 100 grit, 200 grit, up to 2000 grit wet sandpaper.

Stretch forming doesn't require as much sanding and for a pull or two, the plug can be covered with Finishing Wax.

Jim recommends 0.020 PET-G plastic for forming. It is available in 4'x8' sheets, but may be rolled for transport and storage. It is available at Exotic Automation & Supply.

www.exoticautomation.com/

Polystyrene is heavier and works for cowls.

A DIY vacuum former, similar in design to the one Jim shared can be found in the June 1995 *Ampeer*.

<http://www.theampeer.org/ampeer/ampjun95/ampjun95.htm>

The main difference with Jim's is that Jim used an electric griddle as a heat source for his plastic.

For a casting plug mold, Jim uses silicone rubber from Freeman Manufacturing and Supply Company.

<http://www.freemansupply.com/>

It is a two part rubber, but not mixed 50/50. The product is called Procast 20. Jim warns that a fine stream of the liquid should be poured to avoid getting air into the mold.



Thanks Jim for a great and useful presentation!

The January Meeting

Arthur Deane started the meeting with the officer reports.

Lynn Morgan reminded everyone that **March 7** is the 2012 dues deadline to avoid the \$25 re-initiation fee. As the meeting began, there were only 17 renewed members! More folks did sign up at meeting's end.

Ken Myers mentioned how fortunate we are to have to have so many outstanding AMA members in our club.

Arthur noted that the drive in across from Pete's house is messed up very badly and NOT usable! It was most likely not done by our members.

Rudi Reinhard gave the Swap Shop report. Our club made money even though not all of tables were sold. The amount made through the front door was up and **Rudi** caught several 'backdoor' sneakers, thus adding to the pot. We all owe **Rudi** a huge thanks for his efforts that brings a large portion of our yearly budget into the treasury.

Bill Brown spoke about the Polecat and Warbird racing at the Ultimate Soccer Arenas in Pontiac. He and Bill Jr. attended and participated. He noted that the stands were packed with spectators. He also noted that many of the planes all over the place. There were cash prizes awarded. It was a good event and well run by Chris and Joe Hass.

For a full write-up by Joe Hass see:

<http://www.theampeer.org/ampeer/ampfeb12/ampfeb12.htm#RACE>

January Show and Tell

Jim Senia brought in two Fokker Triplanes.

The Electrify Fokker DR-1 flies with 10x6 plastic prop. Jim has detailed it a bit. Web site data:

<http://www.electrify.com/largeelectrics/gpma1142.html>

Wing Area: 315 sq.in. / 2.1875 sq.ft.

RTF weight: 24 oz. / 1.5 lb.

Wing Cube Loading: 7.42 oz./cu.ft.

Wing Area Loading: 10.97 oz./sq.ft.

Jim's second and larger triplane was originally built by his father and flown as a control line model. It was originally covered with silkspan and aircraft dope. The original covering was stripped and then it

was covered in Monokote when it was rebuilt for RC. It has an O.S. 61 2-stroke engine.

His father built it 38-years ago and was probably constructed from a VK kit.

The VK kit is still available from Proctor Enterprises.

<http://www.proctor-enterprises.com/products/vk/dr1/dr1.htm>



Jim in the background & Electrify Tripe in front



Jim and his dad's big Triplane

Roger Wilfong shared his little Widget. It appears to be a much smaller version of the SoarStar or Wingo, planes that were popular trainers in e-flight about 10 years ago. Roger flew it at the Ultimate Soccer Arenas and, unfortunately, had lots of mid-air. Fortunately, it is very resilient! It uses the brick out of a Vapor for 3-ch control and the motor is a M1.



More on Plastics for Vacuum Forming or Pulling Canopies

PET-G: Forms at 260-deg F to 300-deg F. Can withstand a continuous temperature of only 150-deg F. Available sizes from 0.020-inch through 1/4-inch. Fine for cockpit canopies and wing tips, but not good for cowls. It is well suited for use with low vacuum sources, like vacuum cleaners, because of its excellent formability. It heats quickly. It starts to sag almost immediately after the initial waviness disappears. It must be watched closely as it droops quickly and can quickly 'hit' the heat source. Because it heats so easily, it is useful for heat sources such as electric frying pans or electric griddles. It stays softer than other plastics after it is formed. It sticks to things a little more than other plastics and it is a good idea to lightly coat the mold/plug and the rubber seal with Vaseline.

CAB: Cellulose Acetate Butyrate (Acetate) weathers well. It forms at between 265-deg F and 320-deg F.
(cont. on page 4)

To change your email address contact Ken Myers at kmyersefo@mac.com

The 2012 membership application is available at the club Web site, <http://www.midwestrcsociety.org>, for downloading with the link on the homepage.

IMPORTANT: Channels 36 & 56 May NOT be used at the 7 Mile Rd. Field

Upcoming Events:

February 1, Wednesday Midwest monthly meeting. Aviation video at 7 p.m. followed at 7:30 by meeting.

(Cont. from page 3)

It is easily formed. It is available in sizes from 0.010-inch through 1/4-inch. Its water absorption is low. It heats up quickly and sags, but not as much as PET-G. It droops slower and cools faster than PET-G. It costs a bit more than PET-G and may need pre-drying. It is a good second choice for clear parts like canopies.

Styrene: It is most often found with a white, smooth finish. It can be glued with “regular” plastic model glue and is easily painted. It is available in sizes from 0.010-inch through 1/8-inch. It has low water absorption. It requires quite a bit of heat for forming, starting at about 385-deg. F. It only sags a little and should be ‘formed’ then, as waiting long may produce a discolored part. It is suitable with low vacuum sources, like the ones mentioned before. One of its biggest drawbacks is that with little sag, it is difficult to know when it is ready to form.

Plastics information from: DO IT YOURSELF VACUUM FORMING for the hobbyist by Douglas E. Walsh.

So You Want to Fly a Twin

Ken Myers will be out guest speaker at the upcoming February meeting. He will be discussing the topic of Twins, based on some current research he’s done.



The Midwest Monitor/Ken Myers
1911 Bradshaw Ct.
Commerce Twp, MI 48390

<http://www.midwestrcsociety.org>

The Next Meeting:

Date: Wednesday, Feb. 1, 2012

Time: 7:30 p.m. – Video starts at 7:00

Place: EAA building, Mettetal Airport,