

	<h1 style="color: red; text-align: center;">PROPWASH</h1>	
<p>EAA Chapter 190</p>	<p style="text-align: center;">http://eaa190.com/</p>	<p style="text-align: right;">February 2016</p>

Photo of the Month:



Another arrival at Moontown

Presidents Message:

Aaron Wypyszynski – EAA # 579057

This month we continue our building focus! We will have a presentation by Dave Edgemon on Steel Tube Fuselage Fabrication. As some of you may know, both Dave and I are in the middle of building steel tube fuselages for our aircraft. It is a very unique process. Our topics will highlight the basic methods, tools required, as well as some tips and tricks. Many of the original aircraft fuselages were built in this same manner, to include Cubs and Champs. Many kits now provide the fuselages pre-welded. However, even if your fuselage

comes pre-welded, this is a great chance to see what went into making it and get a chance to see how you might go about repairing any damage should it be needed.

For those interested in a bit of pre-reading check out Dave's recent article in the BarkHawk quarterly newsletter on the following pages.

We will continue our building focus in March and April. Keep posted for more presentations as we firm up the dates.

- February: Steel Tube Fuselage Construction by Dave Edgemon
- March: Stinson 108 Full Restoration by Bob Luther
- April: Alternative Engines (with a focus on Corvair and VW) by Mark Langford

This Months Activities:

Activity	Date	Time	Location
Chapter Meeting : Steel Tube Fuselage Construction	Tuesday Feb 16 th	6:30pm	Moontown FBO
Pancake Breakfast	Saturday Feb 20 th	8:00am	Moontown Airport

Building a Patrol Fuselage Using a Tubing Kit from Bearhawk Aircraft *by David Edgemon*

During Oshkosh this year I was wandering through the Bearhawk booth when Mark Goldberg suggested that he had "just what you need." I'm mostly scratch building a Patrol but have purchased a few parts from Mark. When he told me that he had a Patrol pre-fit tubing kit that was available, it took all of 10 seconds to accept. I'm sure glad I did.

The tubing kit is a collection of about 150 tubes that have been pre-cut, bent, fish-mouthed, and fitted into Mark's steel fuselage jig. That's about 300 fish-mouthed joints that are already complete! It's a huge time saver. All of the tubes are labeled with numbers and either "left", "right", or "center" tags. These are referenced to a pair of drawings of the fuselage frame. These two drawings along with Bob's plans provide all of the detail that's really needed for assembly.

The factory guys paint all of their tubing with some cheap paint in order to color code the wall thickness. This helps prevent errors with picking the wrong size tube. You can see in the photos that I have removed the paint and scale from the joint areas prior to tacking the tubes. This allows a nice clean metal joint to weld.

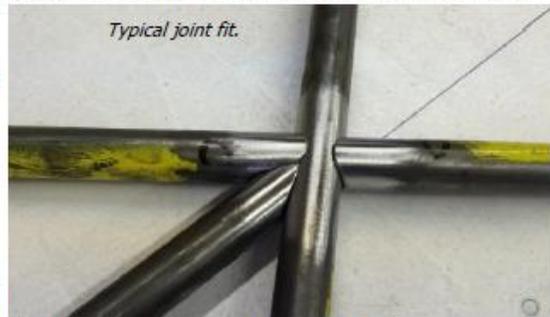
When scratch building the fuselage conventionally, we build a jig and fit each tube to the jig. Well, with the tubing kit it is essentially reversed. The tubes have already been in the jig, so the challenge is to put them back together square and plumb.

I started by laying out the ceiling frame on a flat table. This piece is almost completely flat with just a little joggle in the forward area. The longerons are pre-bent to shape and by fitting the pieces together from back to front, we easily are able to assemble the ceiling frame. I used layout lines on the table for reference and to keep things square, but the tubes pretty much dictate the placement.

The lower fuse frame is a bit more complicated since we have a 2 substantial bends in the longerons.

The lower longerons are pre-bent and the scarf joints are made for the tubing size changes.

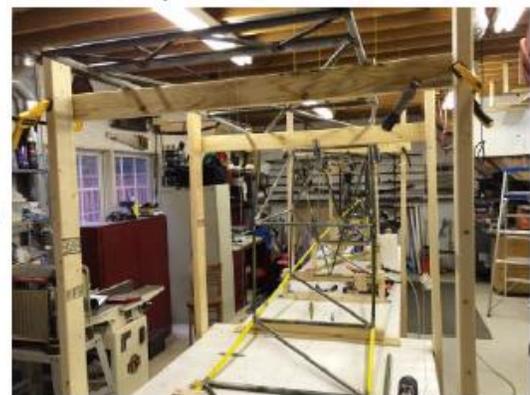
At this point I started building supports to hold the lower frame at the correct angles and positions. You can probably see plumb bobs in the various pictures. These were principally used to



keep the bottom and top frames aligned to the long center line on the table. Once the basic placement was established I let the upright and diagonal tubes dictate the final assembly of the structure.

A simple set of wooden uprights were

screwed to the table in order to position the top of the fuselage over the bottom assembly. The cross braces were set to heights roughly measured from the plans, but during assembly some adjustment was made to allow the uprights to fit correctly. Remember we're fitting the jig to the tubing not the other way around.



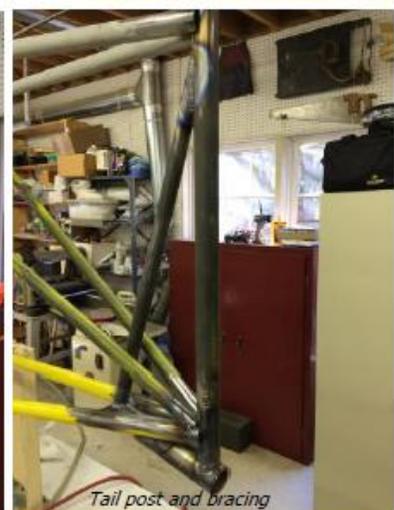
During all of this process the fit of the tubing was excellent. I was worried that as I worked my way forward towards the more complex portions of the fuselage that I might start suffering from tolerance buildup. Fortunately this was minimal. I had very few tubes that needed a small touch up. That was probably due to fitting the aft sections more tightly than needed.

One thing that became apparent during the assembly is the HUGE number of clamps that were necessary to hold things in position before tacking. Some of the most useful clamps were these "EAA" welding clamps. They are cheap to make and very versatile for holding multiple tubes while getting ready to tack. I used 4 of them plus a lot of the common spring clamps.



The forward fuselage and firewall area is definitely the most challenging, with more complex clusters. The 5 firewall tubes were numbered but were not found on the plan sheets. A little study and it became obvious which tubes were which. This is the only error or omission that I found in the drawings.

All in all I was very pleased. The fuse took about 4-5 weeks of very part time work (mostly weekends) to lay out and tack. This is much faster than I would have achieved from plans only. The only thing left is to weld in the engine mount support tubes and I'll be ready to mount the fuse to a rotisserie and start final welding.



Minutes of Last Meeting:

Charles P. Cozelos – EAA # 63381

EAA Chapter 190 Meeting 12 January 2016

Members in attendance:

Andrea Atwood
Charles P. Cozelos
Jamie Dodson

Robert G. Friend
James Harchanko
Kevin MacQuinn

Bryan Tauchen
Aaron Wypyszynski

Guests:

David Merchant

Glen Kyser

Michael J. Guthrie

Call to Order:

6:45 pm for General Meeting

Old Business.

No meeting last month, so no minutes.

There is an opening on the Board of Directors it will be filled at the next chapter meeting.

The instillation of the hood for the Kitchen; Aaron is working with John Pospicil, will determine when soon, and report to the chapter during the next meeting.

New Business.

This weekend is the breakfast; we can always use help parking aircraft.

Upcoming programs were presented. The details will be listed in next month's PROPWASH.

There is an FAA seminars coming up on V-speeds on January 28.

Meeting Adjourned:

6:58 pm.

After the meeting Aaron presented program about his Wingboard.

Treasurers Report:

Bryan Tauchen - 651954

January Treasurers Report

Date		Dep	Check	Balance
1/1/2016	Beginning Balance			\$22,358.83
1/16/2016	1128 National Chapter Dues and Insurance		490.00	21,868.83
1/18/2016	Chapter Membership Dues – (7 * \$15)	105.00		21,973.83
1/20/2016	1129 Reimburse Tauchen for Propane		6.81	21,967.02
1/31/2016	Ending Balance			\$21,967.02

Young Eagles:

Aaron Wypyszynski – EAA # 579057

Thoughts:

Jamie Dodson – EAA # 1025923

U.S. Baffled by Russian Jet 'Bombing'

Investigators still can't figure out how Metrojet 9268 was taken down—leading some U.S. intelligence officials to believe that militants used a novel or previously unseen bomb

TheDailyBeast.com, Nov. 12 | Shane Harris

--With additional reporting by Kim Dozier, Kate Brannen, and Nancy A. Youssef

In the absence of any definitive evidence that an explosive device brought down Russian Metrojet 9268 last month over Egypt's Sinai, U.S. intelligence and security officials have been debating a number of competing theories about how the plane crashed, including that ISIS militants may have used a novel or previously-unseen device that has made it harder for investigators to find forensic evidence of a bomb.

Among the theories U.S. officials are considering is that the bomb may have been placed near a fuel line on the doomed Airbus jet, and that it was just large enough to ignite a fire using the fuel in the aircraft's tanks, two sources familiar with internal discussions told The Daily Beast.

If that was the case, it's possible that investigators might not find tell-tale explosive residue that would prove a bomb had been detonated, the sources said, requesting anonymity in order to discuss sensitive information related to the ongoing investigation of the crash.

But others see evidence of a more traditional attack.

A former senior U.S. official who was shown an investigation photograph of the wreckage told The Daily Beast that a portion of the underside of the plane shows small, quarter-sized holes and looked like something had blown out of the plane from the inside.

This information led the former official to conclude that the jet was brought down by improvised explosive device, possibly packed with nails and other shrapnel to blow as big a hole in the side of the plane as possible. From there, the plane could have broken up in mid-

air, which is about the only thing U.S. officials are sure happened, since the wreckage is spread over a vast area.

The former official spoke on condition of anonymity in order to discuss confidential information that was shared with him from the investigation.

The lack of any concrete evidence has frustrated U.S. officials, who are trying to piece together a narrative from a continent away. They also still cannot rule out a major structural failure. The tail of the aircraft had been damaged during a hard landing in Cairo in 2001.

The slow pace and lack of transparency in the investigation also underscored how dependent crash investigators are on evidence collected at the scene. Egyptian officials are leading the investigation, but U.S. officials expressed little confidence in how they're running the scene.

"Information from the Egyptians on the investigation is coming out rather slowly," a U.S. official told The Daily Beast, attributing the paucity of sharing both to the Egyptians' lack of technical sophistication and their unwillingness to conclude that this was an attack against tourism, one of the key pillars of the national economy. The Metrojet flight originated at Egypt's Sharm el Sheikh Airport, a resort area that is frequented by foreign travelers and that authorities have long said was beyond the reach of Islamic militants in Sinai.

By now, investigators arguably should have had answers. It took forensic specialists eight days to be certain that Pan Am Flight 103 was brought down by a bomb over Lockerbie, Scotland, in 1988, after they found residues on the plane's debris that "positively identified and are consistent with the use of a high-performance plastic explosive," investigators said at the time.

But 11 days have passed since the Metrojet crash with no hint that any forensic evidence has been found.

On Tuesday, the Egyptian foreign minister told CNN that the government had approved applications by the U.S. National Transportation Safety Board, which investigates all aviation accidents involving American planes, to come to Egypt and examine the wreckage.

But an NTSB spokesman told The Daily Beast on Wednesday that, according to the board's head of aviation safety, the Egyptians have still not reached out and said that the investigators can come.

The FBI has personnel serving in Cairo, but they are not at the crash site, nor have they been invited.

"The FBI has offered forensic assistance and other services to our partners in Egypt and Russia, and stands ready to assist," Joshua Campbell, a bureau spokesperson, said in a statement.

A senior Defense Department official told The Daily Beast that without access to the crash site, investigators have been forced to rely largely on satellite intelligence and specula-

tion. The official said suspicion that the plane was probably brought down by a bomb is based largely on thermal imagery detected from a satellite that suggests a massive explosion, likely the result of jet fuel igniting.

That might argue in favor of the fuel-line theory. But if that was the case, it's also not clear why the wings of the doomed jet appear to be largely intact, based on crash scene photos. The wings are badly charred and inverted, which suggests that the plane landed on its back. But they were not blown away.

A senior U.S. intelligence official did said that if a bomb did bring down the plane, it was almost certainly not placed there by a passenger. Instead, attention has focused on ground crew at the airport with access to the airplane when it was preparing for its flight to St. Petersburg.

The Associated Press reported this week that "security checks were often lax at a gate into the facility used to bring in food and fuel," citing security officials at the airport.

"Sharm el Sheikh is a tourist airport geared towards tourism. Many times secondary airports do not have the level of security found at the larger international airports," security consultant John Halinski, the former deputy administrator of the Transportation Security Administration, told The Daily Beast. Helsinki also ran TSA's overseas airport inspections earlier in his career.

"I have always been concerned with the insider threat in this region, especially with a group like ISIS that radicalizes over the Internet," Helsinki added. "Generally screening and vetting of employees in this region occur only once every few years."

Next Generation of Pilots:

Hannah Brock – EAA # 1018039.

Projects Update:

Jim Harchanko	RV	www.flickr.com/photos/rvflyer03/sets/
Bob Wilson	Dragonfly	http://hiwaay.net/~bzwilson/dragonfly/index.html

Calendar of Events:

Feb 16	1830hrs	Chapter Meeting	http://eaa190.weebly.com/
Feb 20	0730hrs	Fly-In Breakfast at Moontown	http://eaa190.weebly.com/
Mar 15	1800hrs	Chapter Meeting	http://eaa190.weebly.com/
Mar 19	0730hrs	Fly-In Breakfast at Moontown	http://eaa190.weebly.com/
Apr 5 – Apr 10		Sun-N-Fun	http://www.sun-n-fun.org/events/

Apr 12	1800hrs Chapter Meeting	http://eaa190.weebly.com/
Apr 16	0730hrs Fly-In Breakfast at Moontown	http://eaa190.weebly.com/
May 17	1800hrs Chapter Meeting	http://eaa190.weebly.com/
May 21	0730hrs Fly-In Breakfast at Moontown	http://eaa190.weebly.com/
Jun 14	1800hrs Chapter Meeting	http://eaa190.weebly.com/
Jun 18	0730hrs Fly-In Breakfast at Moontown	http://eaa190.weebly.com/
Jul 12	1800hrs Chapter Meeting	http://eaa190.weebly.com/
Jul 16	0730hrs Fly-In Breakfast at Moontown	http://eaa190.weebly.com/
Jul 25 – Jul 31	Oshkosh	http://www.airventure.org/
Aug 16	1800hrs Chapter Meeting	http://eaa190.weebly.com/
Aug 20	0730hrs Fly-In Breakfast at Moontown	http://eaa190.weebly.com/
Sep 13	1800hrs Chapter Meeting	http://eaa190.weebly.com/
Sep 17	Moontown Airport (3M5) Annual Grass Field Fly In Sponsored By EAA Chapter 190	http://eaa190.weebly.com/
Oct 11	1800hrs Chapter Meeting	http://eaa190.weebly.com/
Oct 15	0730hrs Fly-In Breakfast at Moontown	http://eaa190.weebly.com/
Nov 15	1800hrs Chapter Meeting	http://eaa190.weebly.com/
Nov 19	0730hrs Fly-In Breakfast at Moontown	http://eaa190.weebly.com/
Dec 13	1800hrs Chapter Meeting	http://eaa190.weebly.com/
Dec 27	0730hrs Fly-In Breakfast at Moontown	http://eaa190.weebly.com/
----- 2017 -----		
Jul 24 – Jul 30	Oshkosh	http://www.airventure.org/
----- 2018 -----		

Jul 23 – Jul 29	Oshkosh	http://www.airventure.org/
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Jul 22 – Jul 28	Oshkosh	http://www.airventure.org/
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Jul 20 – Jul 26	Oshkosh	http://www.airventure.org/

Ports of Call:

Lawrenceville, GA	LZW	EAA 690	1 st Saturday
Rome, GA	RMG	EAA 709	1 st Saturday
Winchester, TN	BGF	EAA 699	1 st Saturday
Gallatin, TN	M33	EAA 1343	2 nd Saturday
Guntersville, AL	8A1	EAA 683	2 nd Saturday
Murfreesboro, TN	MBT	EAA 419	2 nd Saturday
Huntsville, AL	3M5	EAA 190	3 rd Saturday
Shelbyville, TN	SYI	EAA 1326	4 th Saturday
Fort Payne, AL	4A9	EAA 890	5 th Saturday

Hazel Green potluck 5:30pm 3rd Saturday each month.