



# EAA Chapter 166

## Hartford, Connecticut

### February 2023



#### NEXT MEETING

**February 25,  
2023, 10:00am**

**in the EAA166 meeting  
room in H1**

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## PRESIDENT'S MESSAGE

*by Steve Socolosky*

Hello to all our EAA 166 Members and Friends!

Whaddyya mean there's no ice to land on at Alton Bay (B18)? That's what happened a few weeks ago when the Folks who manage the ice, called off the 2023 season because of our winter that hasn't been! With the milder temperatures, you might think more aviators would be up and away, but the weather hasn't been all that great, especially with wind speeds up in the teens with gusts over 20! Oh, and did you hear about the trees finally getting cut (oops, I meant "trimmed") around Brainard, which closes the airport while the work is done per FAA safety standards?

Just ask our Ray Scholar, Will Coates, who's been trying to fly his cross country as he works towards his Sport Pilot certificate. Will's had to cancel due to either availability of the aircraft, weather, scheduled maintenance and now tree cutting! Ugh! But as we often say, "How bad do you want to fly?" In the meantime, Will went ahead and passed his FAA written exam, which earned him his final chunk of Ray Scholarship money to get him to passing his check ride! Keep going, Will!

We're going to keep going with inspiring the future of aviation with our Young Eagles Rallies this year and are already preparing! Our Young Eagles Coordinator, Manu Ramesh, has us all set up for paperless registration so that our only paper will be the Young Eagles certificates! Thanks, Manu!

Our RV-12 reached another milestone with the fitting of the wings! Holy cow! They fit beautifully because they were built by the students of the school, under the leadership of our first Ray Scholar, Daniel Royer! Please check out the pictures and of course, [Larry Anglisano's video!](#)

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@EAA166

# PRESIDENT'S MESSAGE

...continued from page 1

DUES ARE DUE! Please take the time to pay your dues! Click [HERE](#) for our Membership form. Thank you!

Finally, after holding our last month's meeting in the fantastic classroom of the New England Air Museum, we will be meeting this month, upstairs in our usual EAA 166 meeting room in H1.

I hope to see you all soon!  
BLUE SKIES!  
Steve

## Aluminum Overcast packed up in Punta Gorda, Florida and trucked home to Oshkosh for repair!

EAA's B-17, Aluminum Overcast, was brought back for repairs from Punta Gorda, FL, where it's been since 2021. It was grounded for repairs after a crack was discovered in its left wing attachment structure, specifically a shear web. Click the videos below to watch, and see the diagram below.



B-17 UPDATE: We have good news to share! EAA's B-17 Aluminum Overcast is on its way home to Oshkosh. If you recall, the airplane...



Home sweet home!



The drawing below depicts the left-wing attachment fittings. The primary bolts holding the wings are established in four places: upper and lower fittings for the forward and aft attach points to the forward and aft wing spar assembly. There is another bolt at the midpoint (identified as "D" below) between the upper and lower bolt sets, and this is where the problem lies, reportedly on the aft attachment assembly. (While the forward attachment point is depicted in detail below, the aft assembly is similar.)

Front spar of B-17 attaches to fuselage at three points. This detail of left wing shows part of fuselage through which cross wing spar attachment fitting B, which is partially built up construction with fitting at top support C and channel plate from D. Through these support holes E, through-bolts are placed joining support brackets with mating wing spar fittings.

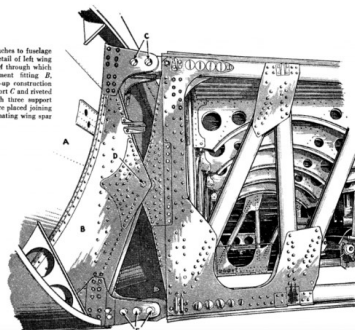
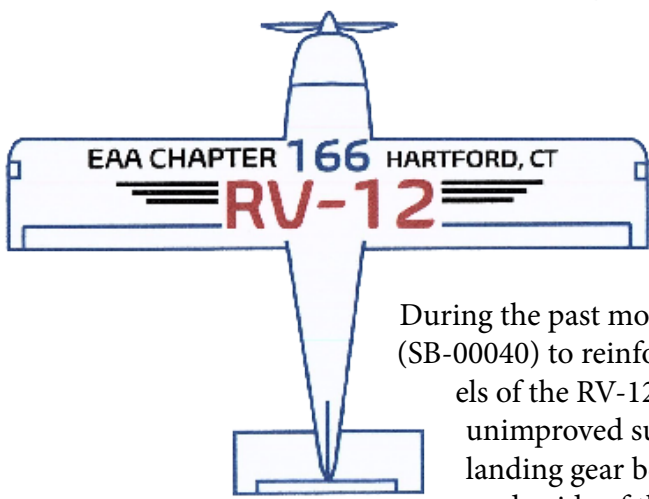


Diagram and description courtesy of EAA's Dick Knapinski and Chris Henry





# EAA 166 RV-12 BUILD UPDATE

During the past month, the RV-12 Build Team completed a Service Bulletin Repair (SB-00040) to reinforce the landing gear beam. This SB applies to the original models of the RV-12 and is recommended for aircraft used in training or landing on unimproved surfaces. This upgrade involved drilling four side channels in the landing gear beam, drilling four new holes to install a thicker wear plate on the underside of the beam, and adding over 50 new rivets between the baggage compartment skin and the rear surface of the landing gear beam. Performing the upgrade was challenging and took our team about 10 hours of labor to complete. In addition to completing the Service Bulletin upgrade, our team started work on section 30, which involves installation of the wings. Yes, our RV-12 now has Wings!!

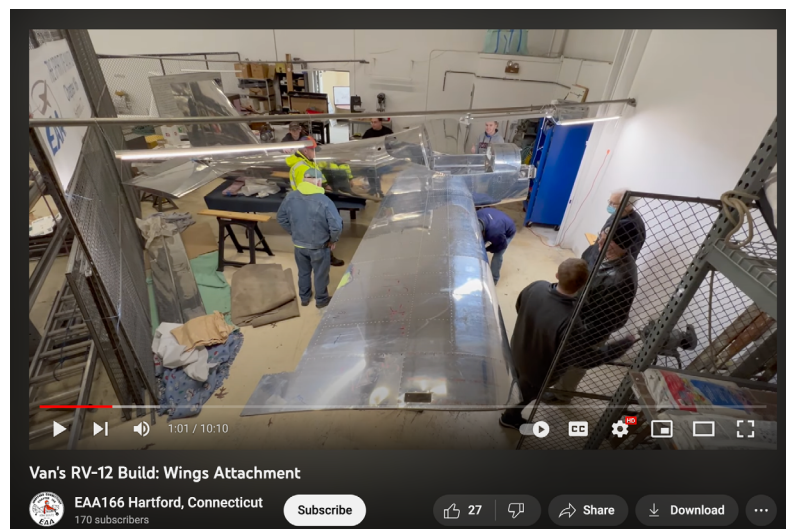
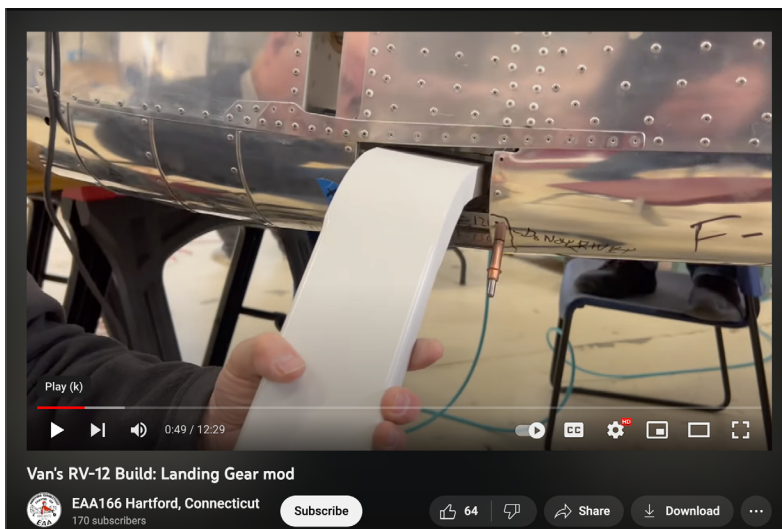
On February 2, our build team gathered at Steve Socolosky's Hangar to transport the wings to Hangar 2. The team rolled the storage cart from the T-Hangars over to Hangar 2 on the eve of the coldest day of the year. Once we got the wings to H2, we had to carefully navigate the wings through the Hangar, which was full of aircraft, to get the wings to the back of the Hangar where our RV-12 is located. Two nights prior to the move, we had taken down the north fence surrounding our work area so we could get the wings into position. We moved the wings into position using the opening in the fence. To get the left wing onto the fuselage, we had to first slide it under the fuselage using a furniture dolly to get it into position. Steve Socolosky and I then lifted it and slide the spar through the fuselage, with the help of many others. It went into place easily. The right wing went into place just as easily. The wings fit perfectly! Cudos are due to the students at the CREC Academy of Aerospace and Engineering for the outstanding work they performed assembling these wings.

Since the wings were mounted to the fuselage, the team has temporarily attached the flaperons to both wings, and has started trimming the skin on the inboard sides of the wings to achieve the required 3/16" gap defined by the assembly instructions. This gap is needed to accommodate the seal that fits between the wings and the fuselage. The build team finish trimming the left wing at our last build session and will begin work on the right wing at the next session.

After we complete work on the wings, we will install the fuselage wiring harness.

- Rick Montero, EAA166 RV-12 Build Team Leader

Watch the two latest RV-12 build updates by clicking the videos below.







Manu Ramesh drilling a slide channel into the landing gear beam. Photo Credit: Rick Montero



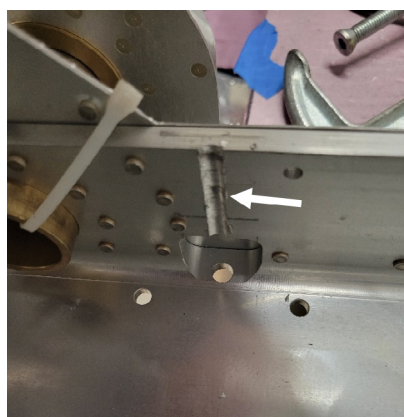
Service Bulletin parts being primed in Rick Montero's workshop. Photo Credit: Rick Montero



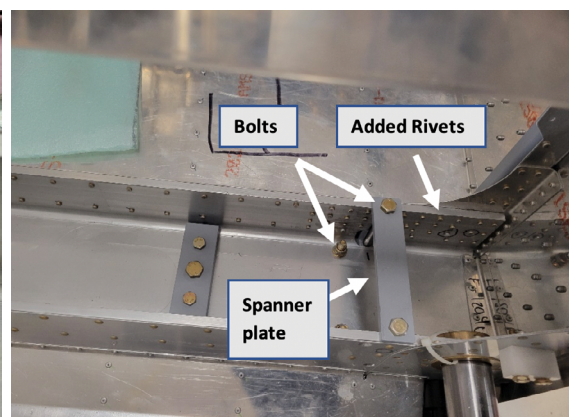
Manu and Mark Welch installing rivets between Baggage Area Skin and Landing Gear Beam. Photo Credit: Rick Montero



Drill guide in position to create a side channel in Landing Gear Beam. Photo Credit: Rick Montero



A side channel (arrow) in Landing Gear Beam. Photo Credit: Rick Montero



Completed upgrades to Landing Gear Beam, which includes spanner plate, bolts, and rivets (arrows) Photo Credit: Rick Montero



RV-12 Build Team with Wings shortly after arrival in Hangar 2. Photo Credit: Steve Socolosky



Left Landing Gear Leg installed following Service Bulletin Upgrade. Photo Credit: Rick Montero



RV-12 Build Team moving wings from Steve's Hangar. Photo Credit: Steve Socolosky



*by Larry Anglisano*

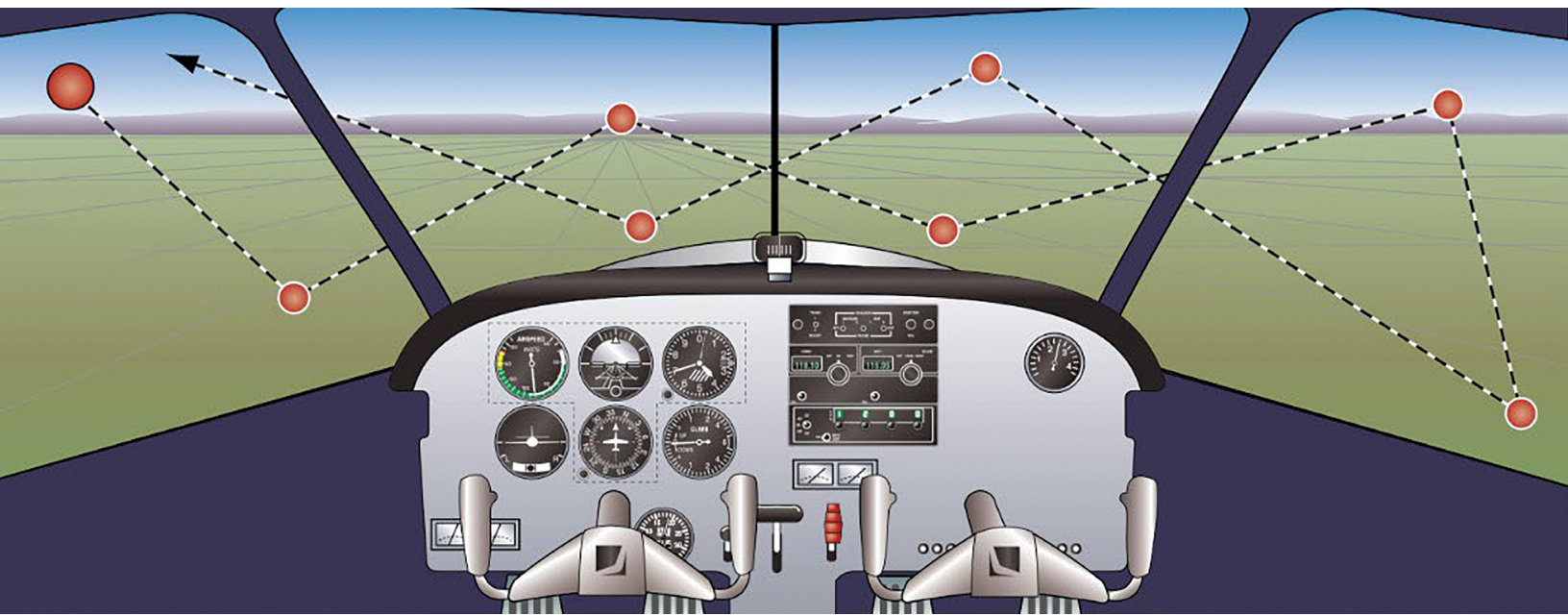
Reading FAA Advisory Circulars isn't exactly my idea of good time, but a recent depressing scan of the NTSB wreck reports sent me to the FAA's latest AC 90-48E, "Pilot's Role in Collision Avoidance." Pour your favorite beverage and give it a read—it's worth it. Published in October 2022, AC 90-48E is a comprehensive resource that updates the FAA's previous guidance on avoiding swapping paint with other aircraft.

Of particular interest to me was a good pictorial for an effective traffic scanning technique (check the image here), plus the real-world data from the U.S. Naval Aviation's Safety Center. When avoiding a mid-air collision, it turns out that a whole lot of time passes before a pilot maneuvers the aircraft for a traffic conflict resolution. The typical numbers:

It takes 0.1 seconds to see the conflict traffic, 1.0 seconds to recognize it as a threat, 5.0 seconds to be aware of a collision course, a whopping 4.0 seconds to make a decision to turn the aircraft left or right (with an additional 0.4 seconds of muscular reaction time) and 2.0 seconds of aircraft lag time in completing the off-course turn. Add it all up and that's 12.5 seconds total time before the aircraft even begins to move to avoid the midair. A long time likely made a lot longer when you think about the typical GA cockpit shenanigans of snapping selfies, too much heads-down time while messing around with cockpit gadgets and gee-whiz avionics and all the other stuff that distracts us while airborne. More time might be spent scanning the big sky.

The AC says that effective scanning is accomplished with a series of short, regular spaced eye movements that bring successive areas of the sky into the central visual field. Each movement shouldn't exceed 10 degrees and you should have your eyeballs on each area for at least one second to enable detection of a threat. I've always used horizontal back-and-forth eye movements, but the AC advises to use a scanning pattern that works best for you as long as it's complete and adheres to the prescribed focused techniques.

AOPA has some good mid-air avoidance tips, too, that are worth a read especially if you operate at uncontrolled fields. Last, use common sense. Listen a lot and talk little and remember that there might be aircraft in the pattern without radios or not making position calls. And when making instrument approaches or straight-in arrivals, report your distance from the airfield in GPS miles (which is measured to the center of the airfield) instead of calling out the fixes in the procedure—some pilots may have no idea what or where those fixes are, call out your intention to land when 10 miles out and announce entering all positions of the traffic pattern and for everyone's sake, don't say "Any traffic in the area please advise."





# NEW ENGLAND AIR MUSEUM CORNER

Click the photo below to view the New England Air Museum's upcoming programs and events!

## UPCOMING PROGRAMS

### EXPLORE THE SKIES!

New England Air Museum is home to an ever changing roster of events – ranging in focus from children, to students and adults. Please explore our featured upcoming events below or use the calendar at the bottom of this page to see all events!

EAA 166 will be promoting Young Eagles at the New England Air Museum's "Women Take Flight" event, which will be held over three consecutive Saturdays this year: March 4th, 11th and 18th. Please email us if you'd like to help out on any or all of those days from 10:00 AM - NOON. We'll be signing up Young Eagles for our FIRST EVER ALL-GIRLS Young Eagles Rally (sometime in April or May)! [eachapter166@gmail.com](mailto:eachapter166@gmail.com) Thank you!



EAA 166 Members Alyssa Celone, Bill Barry and  
Bob Stangarone





# FLY BOY'S FOOD FLIGHTS

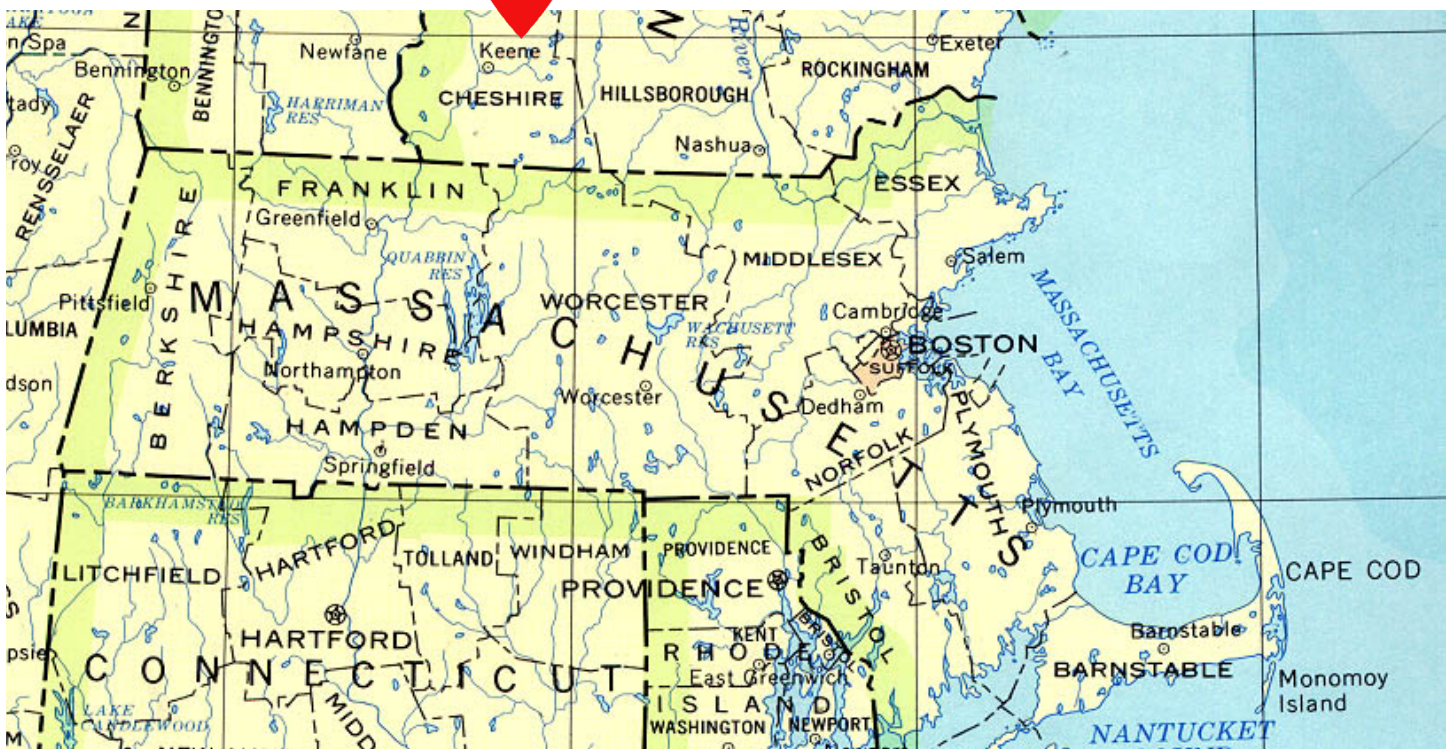
from Dave Armando



## Keene

Mama's restaurant is  
open in the terminal  
Most everything has been  
good. (3 visits so far)

My friend just got a Bell 206





Three more and I'm an ACE!