

N830EH

Aircraft Build Log



Kit Manufacturer:	Sonex Aircraft
Kit Model:	Sonex B (A Model Conversion)
Kit Serial:	0849B
Kit Builders:	Evan Krueger and Hannah Silber



Introduction

Welcome to the build log for Sonex 0849B. This document serves as a detailed chronicle of our exciting, and at times challenging, journey of building a Sonex experimental aircraft. Owning and building an aircraft has always been a dream of mine and I stumbled upon an opportunity in 2024 to make it a reality.

Our approach to this project is somewhat unique, which I believe adds an interesting dimension to the typical homebuilt aircraft story. Rather than starting with a brand-new kit, we acquired this project as a partially completed “legacy” kit through a friend who is the president of the local EAA chapter. The kit was purchased from Sonex in 2004 by a local high school to be assembled as part of their aviation technologies course. After interest declined in the course, the partially completed kit was donated to the local EAA chapter where it sat for a few years as a chapter project that never came to be. This presented both an opportunity and a set of distinct considerations. The opportunity lay in potentially accelerating certain early stages of the build and acquiring the initial components. However, it also meant inheriting the work of previous builders (high schoolers no less), which comes with its own set of investigations and potential rework.

Driven by a desire to incorporate the latest advancements and improvements offered by the manufacturer, we made a significant decision early on: to upgrade this legacy airframe to the newer “B” model. This undertaking involves the use of official conversion kits provided by the manufacturer. These kits are designed to bring the older design up to the current standards, offering enhanced performance, updated features, and often improved buildability in certain areas. Over the years, parts of the original kit were misplaced and damaged so at the point we were going to need to reorder components, we might as well upgrade in the process to the newer version of the Sonex.

A Word of Caution: My Path Will Not Be Your Path

It is absolutely vital for anyone following this blog to understand that our specific experience is just that – *ours*. The beauty, and sometimes the frustration, of experimental aircraft building lies in the fact that no two projects are exactly alike. This is especially true in our case, given that we are working with a second-hand kit and undertaking significant modifications through conversion kits.

The way these conversion kits integrate with a pre-existing legacy build can vary depending on the stage of completion of the original kit. For example, some of the parts I purchased were contained in the original “machined angle component kit” but, as we found out throughout the build, that was not complete. Additionally, you’ll notice in our build log that the original owner did not opt for the pre-assembled spars option and we needed to build them from plans. Later on in the process, you’ll see us

have to manufacture legacy parts that were included in the newer b-model kits. Therefore, the steps we took, the challenges we encountered, and the solutions we implemented may not be directly applicable to other similar projects. Each conversion process will have its own nuances and require independent assessment.

Important Disclaimer: Information for Reference Only

The information, technical details, photographs, personal anecdotes, and opinions shared in this build log are intended solely for informational and reference purposes. This log is a documentation of our personal journey as an amateur aircraft builder. **We are not certified aircraft mechanics, engineers, or aviation professionals.** The content presented here should not be construed as expert advice, instructions, or recommendations for your own aircraft building projects.

Building and modifying aircraft is a complex and potentially dangerous undertaking that requires meticulous attention to detail, adherence to official manufacturer guidelines, and compliance with all relevant aviation regulations. Under no circumstances should you rely solely on the information provided on this blog for your own aircraft construction, maintenance, or modification endeavors. We have reached out to Sonex technical support team a number of times during this build and have had nothing but great advice in a timely manner.

Always consult the official plans provided by the aircraft manufacturer, seek guidance from qualified and experienced aviation professionals, and adhere strictly to the regulations set forth by your local aviation authorities. Your safety and the airworthiness of your aircraft are paramount.

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Build Logs

Section 1: Controls

SNB-C06: Trim System

Trim System Installation – Part 1

August 21, 2025 | Hours Worked: 3.17

Parts Used: AN365-832A, AN526-832R8, TrimKit

Began trim system installation by removing lower instrument panel and drilling holes for throttle, mixture, and trim wheel. Measured and drilled hole for trim cable sleeve below seat pan. Mocked up cable run and trimmed around 18" from cable and sleeve. Ran cable through trim adjuster and sleeve then secured to rear spar carry through with D3 clamp. Cut trim cable wear surface from leftover spar bumper material then riveted on top of seat belt center channel. Created cable link from aluminum scrap then installed onto end of cable. Connected spring to control stick frame and adjusted cable so that spring is lightly tensioned with stick fully forward and trim full nose down. Verified clearance of cable link through seat pan lightning holes. Cut rear spring attach plate from aluminum bar stock then bent tang in vice per plans. Drilled rear spring mount hole in top of rear spar carry through angle and clamped attach plate to elevator push rod per plans (balance spring in slight tension when control stick fully forward. Flap tube interfered with spring installation below the pushrod so rotated attach angle to top of push rod. Will need to add additional clamp before finishing trim system.



Conduit retainer installed
below seat pan



Lower panel holes drilled



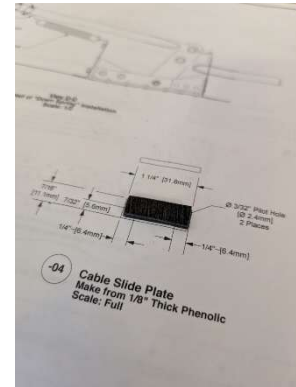
Lower panel angle clecoed
into place



Trim cable routed through mid-fuselage



Trim cable secured to rear spar carry through



Cable slide plate cut from scrap spar bumper stock



Cable slide plate riveted



Cable link complete



Forward spring installed and attached to trim cable



Aft spring clip cut and bent



Ballance spring and spring plate attached. Need one more hose clamp.



Trim system nearly complete

Trim System Installation – Part 2

August 22, 2025 | Hours Worked: 0.32

Finished trim system by installing last clamp on elevator pushrod and balance spring. Will wait to adjust until flight testing occurs. Also added torque seal to elevator push rod bolts.



Clamp added to balance
spring tab



Torque seal added to elevator
pushrod bolts

SNB-C05: Flap Actuator

Flap Drive Tube Installation

December 3, 2024 | Hours Worked: 3.98

Parts Used: AN3-21A, AN365-1032A, AN960-10, ONX-C03-16, SNB-C04-11, SNB-C05-02L, SNB-C05-02R

Located flap drive angles per plans and pilot drilled/clecoed into place. Marked center of lower crosstie #1 and flap drive tube and centered flap drive tube. Marked location of flap mount blocks and drilled 3/16" holes in lower splice plates. Needed to notch out lower crosstie #1 to clear flap mount blocks. Up drilled lower splice plates, flap drive angles, side skins, and lower crosstie #1. Disassembled components, deburred, slightly enlarged LH flap drive tube hole, and riveted flap drive angles, lower splice plates, and lower crosstie #1. Marked location of mount blocks on drive tube and removed powder coating with drill and wire wheel. Aligned flap drive tube in flap mount blocks, lubricated with white lithium grease, and installed flap drive tube with AN3 hardware. Torqued hardware based on movement rather than standard torque spec. Flap drive tube is free to rotate but takes some firm effort. Will adjust if needed after actuator is installed.



RH flap angle pilot drilled and clecoed



RH flap angle pilot drilled and clecoed



LH flap angle pilot drilled and clecoed



LH flap angle pilot drilled and clecoed



Flap drive tube center marked



Crosstie center marked



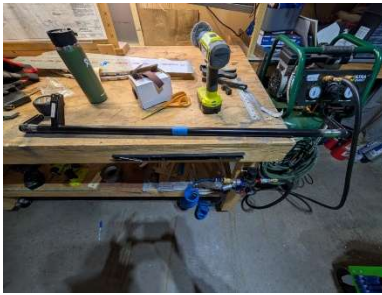
Lower crosstie notched for flap mount blocks



Lower crosstie notched for flap mount blocks



Drilling flap mount blocks to lower splice plates



Powder coating removed in
mount block saddles



RH flap angle riveted



RH flap angle riveted



LH flap angle riveted



LH flap angle riveted



SNB-C05 complete

SNB-C04: Control Stick Details

Control Stick Assembly – Part 1

June 29, 2025 | Hours Worked: 1.77

Parts Used: Symmco SF-2024-8, Symmco SF-610-3

Began control stick assembly process by drilling 1/8" pilot holes in bottom of stick grips. Removed powder coating from shaft of control stick horns by using heat, sandpaper, and scotchbrite wheel. Installed SF-2024-8 bushings into control stick frame; fit is okay but will need to put some Loctite 638 on bushings to ensure they do not rotate. Pressed SF-610-3 bushing into link rod and ensured bushing stuck out to the specs called for in plans (0.024" actual). Assembled left side stick and horn, aligned both vertically, then transferred pilot hole onto horn shaft. Removed shaft and through-drilled stick grip hole on drill press. Attempted to use #1 taper reamer to enlarge hole but found out I bought the wrong size; will need to get correct size before reaming.



Pilot holes drilled in stick grips

Powder
coating removed from horn
shaftsAligning stick grip and horn to
vertical position

Drilling horn shaft for taper pin

Hole ready to be reamed for
taper pin

Control Stick Assembly – Part 2

July 3, 2025 | Hours Worked: 4.37

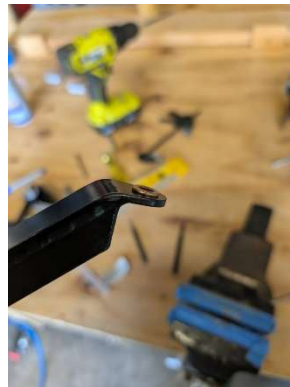
Parts Used: AN386-1-8, SNX-C04-08, Symmco SF-812-3

Set bushings into top of control stick frame with Loctite 638. Using new taper reamer, reamed LH stick grip hole and inserted taper pin. Repeated whole process for right hand stick grip and found that sticks were not parallel with control horns and cross link tube would not fit in between left and right control sticks. In order to properly fit link rod, both control sticks would be tilted 5 degrees outward. Suspect that control sticks slightly twisted when initially drilling shafts. Decided to redo control sticks with spare control horns from original kit. Removed powder coating from new control horns and lubricated with white lithium grease. Inserted horns into the control stick frame and squared them up using digital level. Attached link rod to RH horn and drilled 3/16" pilot hole in link rod for LH horn. Enlarged hole and

installed SF-610-3 bushing into link rod. Rechecked squareness of assembly; checked good. Installed SF-812-3 bushings into lower pivot points of control frame. Realigned LH control horn to vertical position and placed existing control stick onto horn shaft. Clamped control stick to piece of scrap wood to keep it square with assembly. Drilled approximate taper pin hole size on both sides of shaft separately using existing holes in the control stick. Reverified squareness with assembly then finished hole off with (properly sized) taper reamer. Repeated process on RH side using opposite control stick to set vertical position of assembly. Temporarily reinstalled old taper pins to check assembly; both sticks vertical with link rod centered and no play in mechanisms. Will replace taper pins at later date.



Bad stick assembly; control sticks not parallel to control horns



Inserting bushings into lower pivot holes



New hole drilled in LH side of link rod



Link rod installed onto stick horns



Using 2x4 to keep control stick vertical during shaft drilling



Using 2x4 to keep control stick vertical during shaft drilling



New control stick assembly
nearly complete; just need to
replace taper pins.

Control Stick Assembly – Part 3

July 11, 2025 | Hours Worked: 0.70

Parts Used: AN3-5, AN310-3, AN365-1032A, AN386-1-8, AN960-10, MS24665-132, SNB-C04-03, SNB-C04-19, SNB-C04-20, SNB-C04-26, SNX-C04-08

Disassembled dual stick assembly and deburred stick holes. Lubricated control stick horns with lithium grease and deburred taper pin holes. Reassembled left and right control sticks and attached link rod with hardware. C04 complete!



#1 taper pins installed



Link rod attachment to control
stick horns



Dual control stick assembly
complete

SNB-C03: Pushrods

Control Pushrod Assemblies

April 15, 2025 | Hours Worked: 3.13

Parts Used: AN316-4, AN316-5, Auroa MM-5, Auroa MW-4, Auroa MW-5, SNB-C03-01, SNB-C03-02, SNB-C03-03, SNB-C03-07, SNB-C03-09, SNB-C03-10, SNX-C03-08, XNS-W37-07

Cut aileron tube stock to size per plans for dual-stick configuration. Marked and drilled holes for pushrod end fittings, then deburred and riveted -01 main aileron pushrod assemblies. Pressed spoiler bearings into rod end bearings using vice then installed onto main pushrod with jam nuts using dimensions given in plans. Drilled witness holes into female rod end bearings then installed onto -02 aileron pushrods. Created -03 flap pushrods by drilling witness holes into rod end bearings and assembling onto threaded rods. Drilled 1/8" pilot holes into -05 elevator pushrod assembly for updrilling once elevator pushrods are mated during SNB-C01.



Pushrod ends riveted



Bushings pressed into rod end bearings



Rod end bearings installed



-01 main aileron pushrod assemblies complete



Drilling witness holes into female rod end bearings



Pilot drilling holes for -05 elevator pushrod end



Cutting aluminum pushrod tubing



Drilling holes for pushrod ends



-02 aileron pushrods complete



-03 flap pushrods complete



SNB-C03 parts complete

SNB-C02: Rudder System Detail

Rudder System Prep – Part 1

March 18, 2025 | Hours Worked: 1.67

Parts Used: 3/4" Phenolic Sheet, SNB-C02-10

Cut rudder pedal pivot blocks from Phenolic sheet. Matched similar blocks together and rough sanded. Clamped blocks together then drilled mount holes with drill press. Temporarily bolted blocks together and sanded edges flat. Marked holes for rudder pedals then through drilled with Forstner bit. Deburred all holes and final sanded through holes.



Marking phenolic sheet



Rough cutting pivot blocks



Pilot drilling through holes



Drilling through holes



Sanding halves consistent



Completed block assembly



Pivot blocks complete

Rudder System Prep – Part 2

September 9, 2025 | Hours Worked: 1.62

Parts Used: 1.5x0.190x10.25 Bar, SNB-C02-03L, SNB-C02-03R

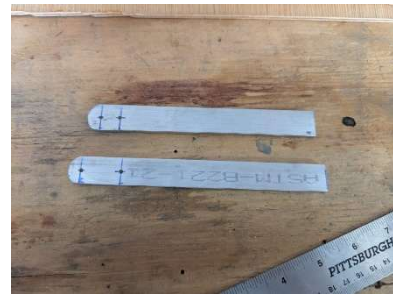
Removed forward fuselage floor for better access to rudder pedals then removed rudder pedals and mounting blocks. Used die grinder to remove powder coating from pivot points on rudder pedals. Created cable adjusters from aluminum bar stock.



Removed forward floor and
rudder pedals



Removed powder coating from
rudder pedals



Cable adjusters cut from bar
stock

SNB-C01: Control Installation

Rudder System Installation – Part 1

March 22, 2025 | Hours Worked: 1.17

Located rudder pivot blocks onto fuselage and temporarily inserted rudder pedals to check fit. Fit and function seemed good so clamped blocks to fuselage and drilled forward mounting holes. Will need to remove assembly to apply grease in future.



Rudder pedals temporarily
installed



Pivot blocks mounted

Elevator Control System – Part 1

August 21, 2025 | Hours Worked: 3.27

Parts Used: AN3-7, AN310-4, AN960-416, MS24665-208, SNB-C03-04, SNX-C03-05, SNX-C03-06, Symmco SF-812-3

Temporarily installed control stick assembly. Pressed SF-812-3 bushings into stick to idler bar and control frame then installed idler hardware permanently and stick hardware temporarily. Verified freedom of movement and clearances with idler bar. Pressed bushing into elevator push rod ends, clecoed forward pushrod support to cross ties, and checked clearance of elevator push rod. Found that pushrod was contacting hole in rear spar carry through and top of aft tail bulkhead. Filed a little material from both areas and verified movement of pushrod through full elevator travel. Set elevator in full down position with stick $1/16$ " short of full forward position and clamped both halves of the elevator pushrod together. Transferred existing holes in push rod end to pushrod assembly then updrilled to $3/16$ ". Installed AN3-12A bolts into pushrod assembly and torqued to spec. Verified clearance and travel of elevator assembly; checked good.



Temporarily installed stick frame



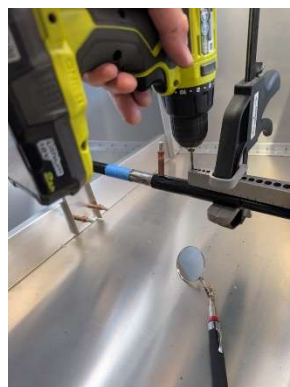
Bushing set into idler arm



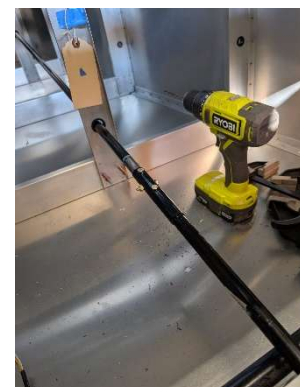
Idler bar temporarily installed on stick frame



Forward pushrod support clecoed and pushrod halves pilot drilled



Updrilling elevator pushrod bolts



Bolts installed in elevator pushrod assembly



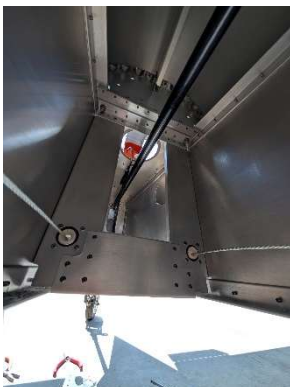
Elevator assembly temp
installed

Rudder Control System – Part 1

September 9, 2025 | Hours Worked: 2.30

Parts Used: 05-05600, AN3-21A, AN363-1032, AN960-10, SNB-C02-03L, SNB-C02-03R, SNB-C02-09, SNB-C02-10, SNX-C02-02

Installed rudder pedals and mount blocks into fuselage. Applied white lithium grease to rudder pedals before tightening rudder pedal mount blocks. Fed rudder cables through aft fuselage and temporarily installed AN23 clevis pins into rudder horn. Installed cable fairleads into fairlead blocks. Bolted cable adjusters onto rudder pedals and marked LH cable adjuster hole per plan instructions. Removed LH cable adjuster, drilled hole, then trimmed aft end of cable adjuster per plans. Centered rudder using 185-degree measurement on LH side of rudder then evened out rudder pedals to mark RH cable adjuster hole. Removed RH cable adjuster, drilled hole, then trimmed cable adjuster. Mounted cable adjuster back onto rudder pedals then checked operation. Will finish return springs before seeing if aft fuselage holes need trimming.



Aft fairleads installed



Clevis bolts temporarily
installed



Forward fairleads installed



Rudder pedals mounted

LH cable adjuster hole drilled
and trim line markedRudder cables attached to
pedals

Rudder Control System – Part 2

September 10, 2025 | Hours Worked: 1.82

Parts Used: ABS-C01-01, AN3-6, AN310-3, AN310-4, AN4-14, AN530-4-6 (PK screw), AN960-10, AN960-416, MS24665-132, MS24665-208, SNX-C01-03

Heated up C01-03 rudder spring stock with propane torch and bent springs to specs in plans. Previously tried to bend springs without heat and spring steel broke rather than bent. After installing springs into fuselage, discovered that plan dimensions were a little long and resulted in rudder pedals not returning to neutral. Shortened springs by 2" (5" total coil) and found this length worked much better. Installed cotter pins in rudder hardware to finish out pedal assembly. Cut ABS-C01-01 cable fairings and located them onto the fuselage. Drilled 5/64" holes for PK screws then installed rudder cable fairings onto aft fuselage.



Bending spring steel with heat



Rudder return springs complete



Rudder system installed



Cable fairings mounted onto
fuselage

Flap Rigging

March 23, 2026 | Hours Worked: 2.28

Parts Used: AN310-4, AN4-14, AN4-7, AN960-416, AN960-416L, MS24665-134, MS24665-208, MS24665-285

Began rigging flaps for final installation by trimming flap pushrod length from 3" to 2" to allow more adjustment of rod ends. Removed flap motor from drive tube for easier access and started by testing position of LH flap. Adjusted lower pushrod end to achieve full-up flap neutral position of $2 \frac{59}{64}$ " measured from the leading-edge skin joint (just like aileron). Repeated the process for the RH side then tightened both flap pushrod end jam nuts and installed permanent hardware on each flap. Needed to trim pushrod openings slightly for better clearance of drive tube. Installed hardware for flap motor and tested smoothness of operation and checked for binding; none noted. Calibrated flap position sensor with digital level and saved calibration in Dynon SkyView system.



LH flap hardware installed



Checking LH flap neutral
position



RH flap hardware installed



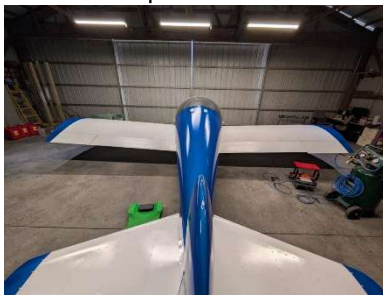
Checking RH flap neutral position



Flap motor hardware installed



Calibrating flap position sensor



Flaps fully rigged

Elevator and Rudder Rigging

May 20, 2026 | Hours Worked: 1.05

Parts Used: AN23-11, AN310-3, AN310-4, AN4-7, MS24665-132, MS24665-208, SNX-F23-09

Connected rudder cables to rudder horn per plans and installed rudder cable fairings on fuselage. Installed hardware for elevator push rod and lubricated bushing with LPS-1. Riveted SNB-F23-09 pushrod assembly to fuselage and verified freedom of movement in elevator control system.



Rudder cables attached to rudder and fairings installed



Elevator horn connected to push rod



Forward push rod assembly riveted

Control Frame Installation

June 7, 2026 | Hours Worked: 2.27

Parts Used: AN3-12A, AN310-4, AN365-1032A, AN960-10, AN960-416, AN960-416L, MS24665-208, SNB-C04-19

Fabricated auto pilot push rod bracket from spare 2" aluminum angle and bolted it to bottom LH side of control frame with AN3 hardware. Upon initial fit of the frame, discovered that aileron stops were contacting ends of spar tunnel bolts so trimmed approximately 3/8" off each end of aileron stop. Stops still contact frame at proper angle so function was preserved. Tested fit of auto pilot pitch servo and checked that motion did not exceed Dynon's 100-degree limit; trail check good. Bolted control stick frame to fuselage and lubricated bushings with white lithium grease. Bolted control frame to elevator push rod then installed cotter pins in all rotating hardware.



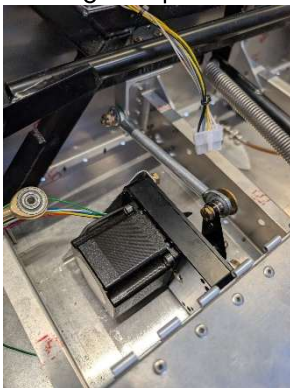
Test fitting autopilot bracket



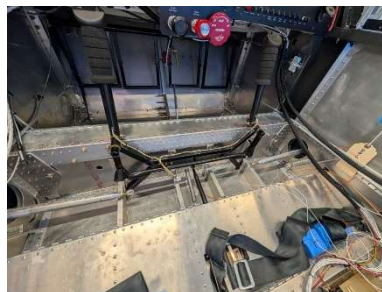
Pitch servo bracket bolted to control frame



Aileron stops shortened



Test fitting pitch servo



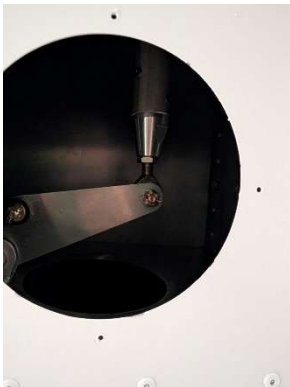
Control frame installed

Aileron Rigging

June 16, 2026 | Hours Worked: 0.72

Parts Used: AN3-10, AN310-3, MS24665-132

Created aileron neutral alignment tool with two rulers similar to the one used for flap rigging. Set neutral position for RH aileron and centered stick assembly using digital level. Adjusted aileron pushrod length via rod ends then secured RH aileron to control stick. Repeated process for LH aileron. Verified freedom of movement and range of motion for both ailerons then tightened jam nuts on rod ends. Installed aileron push rod hardware into control stick frame and secured nuts with cotter pins. Control installation complete!



Aileron push rod jam nuts
tightened



Ailerons rigged to control stick
frame. Control installation
complete!

Section 2: Canopy and Windshield

SNB-D03: Canopy Components

Canopy Components – Part 1

July 4, 2025 | Hours Worked: 2.55

Parts Used: 6061-SQ-pt5xpt5xpt058, SNB-D03-01L, SNB-D03-01R, SNB-D03-02, SNB-D03-03, SNB-D03-04, SNB-D03-05L, SNB-D03-05R, SNB-D03-06, SNB-D03-07, SNB-D03-08L, SNB-D03-08R, SNB-D03-10

Began canopy/windshield frame prep by working on canopy forward aft bows and windshield bow. For canopy bows, started by countersinking bow holes for -6 flush rivets. Riveted components together using -6 solid rivets. Laid out bows on workbench and marked centerline on bows. Measured out pilot hole locations for attach screws per plans and pilot drilled with 3/32" drill bit making sure holes were square to the mounting surface; not the front/rear faces. For the aft canopy bow, cut aluminum cross tube from 1/2" x 1/2" square tube stock and centered in the frame. Pilot drilled rivet holes then riveted cross tube into rear bow with CCP pulled rivets. Repeated same process for windshield bow minus drilling pilot holes in edge.



Countersinking rivet holes for flush rivets



Installing flush solid rivets into canopy bows



Solid -6 rivets installed



Connecting canopy bows together



Marking bow centerline



Aft canopy bow cross tube installed



Canopy and windshield bows complete

Canopy Components – Part 2

July 11, 2025 | Hours Worked: 0.64

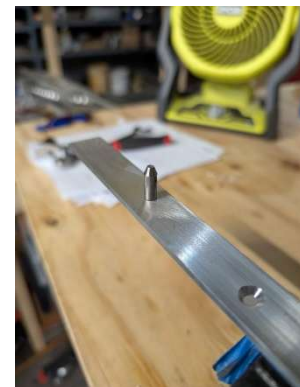
Took SNB-D03-09L and updrilled holes per plans; inside holes to $3/16"$ and outside holes to $13/64"$ to be tapped. Countersunk $3/16"$ holes for flush screws and tapped outside holes with $1/4"-28$ tap set for canopy alignment pins.



Countersunk inside holes for flush bolts



Taping outside holes for canopy alignment pins



Test fit of canopy alignment pins



SNB-D03-09L prepped

SNB-D02: Canopy Details

Canopy Components – Part 3

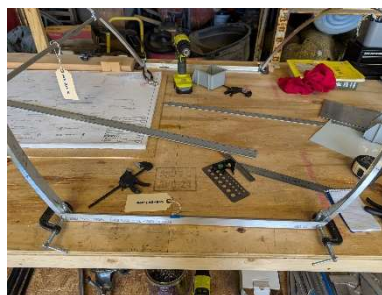
August 12, 2025 | Hours Worked: 2.82

Parts Used: 04-04258, AN365-1032A, AN365-832A, AN960-8, MS21042-3, MS24694-S3, MS24694-S50, MS24694-S51, SNB-D02-06, SNB-D02-11, SNB-D02-12, SNB-D02-14, SNB-D02-19, SNB-D03-03, SNB-D03-06, SNB-D03-09L, SNB-D03-09R

Clamped canopy frame components together and checked fitment on fuselage. Forward windshield flange might need a bit of trimming but overall fit good. Pilot drilled then updrilled forward and aft canopy bows to side rails. Cut canopy hinge pieces from P5 piano hinge stock then pilot drilled per plans. Modified hinge pin per plans and added bend. Updrilled canopy latch angle then countersunk screw holes for spring post and handle screws. Installed hardware to complete canopy latch assembly. Located fastener hole in fuel door, transferred hole to windshield skirt then updrilled hole to 1/4" per plans. Finally bolted canopy bows to canopy rails to complete canopy frame assembly.



Canopy bows clamped to
canopy side rails



Pilot drilling canopy frame



Canopy hinge cut and pilot
drilled



Canopy hinge cut and pilot drilled



Canopy hinge assembly complete with hinge pin



Canopy latch updrilled and countersunk



Canopy latch assembly complete



Fuel door hole drilled



Canopy frame assembly complete



Canopy frame test fit into fuselage

SNB-D01: Canopy/Windscreen Installation

Windscreen Install Prep

July 18, 2025 | Hours Worked: 2.17

Removed top row of clecoes from upper longerons and upper engine mount screws to prepare for windscreen installation.



Windscreen bow clecoes and
screws removed

Windshield Installation – Part 1

August 1, 2025 | Hours Worked: 4.62

Marked out 1" skin overlap line on windshield skirt. Aligned skirt with windshield centering fuel door cut out in windscreen and aligned back edges together. Marked skirt location onto wind screen then pilot drilled fuel door holes in windshield with #40 drill bit. Installed windshield skirt onto fuselage then through drilled side skin holes into upper longeron. Clecoed side skins and windshield skirt onto upper longerons. Slid windshield into place and centered onto fuselage. Pushed windshield as forward as possible and clamped into place with wood blocks behind windshield. Stuffed towels in between windshield and glareshield to help push windshield "up" into position to keep tight with windshield skirt. With a dulled #40 drill bit, started to pilot drill windshield to skirt working from front center, along the sides to the aft part of the windshield. Inserted clecoes as holes were drilled. Along the way, used strap to help pull in windshield skirt and "bow out" windshield. Also continued to stuff towels under windshield to keep assembly tight.



Marking overlap lines on windshield skirt



Skirt aligned with windshield



Pilot drilling fuel door holes



Windshield skirt installed and clecoed to upper longerons



Windshield inserted and starting to drill to skirt



Towels stuffed between windshield and glareshield to "bow out" windshield to skirt



Pilot drilling continued and strap added to help curvature of assembly. Note blocks on upper longerons to hold windshield forward.



Forward and side windshield holes pilot drilled



Inside view of windshield progress to date

Windshield Installation – Part 2

August 2, 2025 | Hours Worked: 2.73

Clamped together rear edges of windshield skirt and windshield and pilot drilled pieces together starting at the top center and working down both sides. Marked centerline on the windshield bow and pilot drilled top center hole off of plane. Clecoed bow into place and aligned to existing holes in windshield. Pilot drilled windshield bow holes from existing holes in windshield and skirt. Then drilled windshield bow to upper longerons for AN3 hardware. Removed bow from windshield assembly then marked center and overlap lines onto bow strap. Clamped bow strap underneath windshield and skirt and pilot drilled in same manner used previously. Added windshield bow back to assembly then clecoed everything together to recheck fitment. Finished pilot drilling fuselage side holes and forward skirt holes in upper firewall.



Rear edge of windshield pilot drilled



Centerline marked on windshield bow



Windshield bow inserted and pilot drilled to windshield



Windshield bow drilled to upper longerons



Centerline and offset marked on bow strap



Bow strap pilot drilled to rear of windshield



Windshield bow reinstalled

Windshield skirt clecoed to
upper firewall

Windshield Installation – Part 3

August 4, 2025 | Hours Worked: 1.25

Completed pilot drilling of windshield skirt holes into upper longerons. Updrilled skirt mounting holes in longerons and upper firewall. Decided not to updrill windshield holes since clecoes would not hold well in 9/64" holes.

RH side longeron holes
updrilledUpper firewall skirt holes
updrilledLH side longeron holes
updrilled

Windshield Removal

August 22, 2025 | Hours Worked: 0.52

Removed windshield components to prep for painting and updrilling. Deburred upper firewall holes.



Windshield components
removed



Upper firewall holes deburred

Windshield Prep – Part 1

August 26, 2025 | Hours Worked: 3.05

Parts Used: Southco Receptacle 82-35-302-15

Began prepping the windshield components for paint and final assembly by updrilling and deburring the windshield skirt. Enlarged fuel door hole and installed Southco receptacle for fuel door fastener with flush rivets. Then updrilled windshield bow skirt and scotchbried. Updrilled windshield bow holes with #36 drill bit then tapped for 6-32 screws perpendicular to the surface. Removed protective film from the outside edges of the windshield and updrilled windshield holes with specialty 9/64" plastic drill bit. Deburred holes then ran drill bit through once more to clear holes of plastic. Tested slightly loose fit with screws and reamed holes as necessary.



Windshield skirt updrilled and
deburred



Southco receptacle installed



Southco receptacle installed



Bow skirt and fuel door
prepped



Tapping bow holes for 6-32
screws



Testing screws in the windshield
bow



Protective film removed from
edge of windshield



Windshield holes updrilled



Windshield hole closeup

Windshield Installation – Part 4

September 4, 2025 | Hours Worked: 1.30

Routed fuel vent hose up through hole in glareshield and attached to fuel vent fitting with hose clamp. Clecoed newly painted windshield skirt onto fuselage.



Windshield skirt clecoed into place

Windshield Installation – Part 5

September 13, 2025 | Hours Worked: 1.95

Parts Used: AN365-1032A, AN365C-632, AN525-10R11, AN526C-632R6, AN960-10

Using two people, reinstalled bolts in upper longerons, windshield skirt, and upper motor mounts. Applied torque check to bolts to monitor torque. Slid windshield into place and began installing bolts starting from forward center and working backwards. Used a piece of tape on wrench to prevent nut from falling out.



Upper motor mount bolts installed



Upper motor mount bolts installed and torque check applied



Nut retention technique



Bolts installed in forward part of windshield



Bolts installed in forward part of windshield

Windshield Installation – Part 6

September 16, 2025 | Hours Worked: 3.60

Parts Used: AN3-15A, AN365-1032A, AN365C-632, AN526C-632R6, AN960-10, SNB-D02-01, SNB-D02-04, SNB-D02-05, SNB-D03-10

Finished installing windshield onto fuselage by installing screws from front to back, skipping last bottom screw on each side. Aligned windshield bow with top center screw and installed sandwiching strap in between. Needed to run tap through each screw hole to clean paint out of threads; should have done before installing bow, however. Worked from center of windshield bow down to edges. Once bow was screwed to the windshield, bolted bow to upper fuselage longerons, and installed remaining screws in aft corners of windshield. Installed rivets in upper firewall then in fuselage sides to complete windshield installation.



Screws installed in windshield and windshield bow



Screws installed in windshield and windshield bow



Upper firewall riveted to windshield skirt



Windshield rivets complete



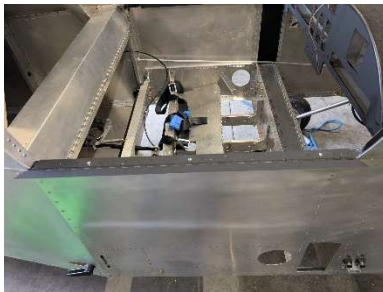
Windshield rivets complete

Canopy Frame Installation

September 19, 2025 | Hours Worked: 2.32

Parts Used: JSX-D02-13, SNB-D02-06, SNB-D02-11, SNB-D02-12

Began assembling canopy frame to fuselage by locating canopy frame hinge on RH longeron. Since clecoes would impede placing the canopy frame on the hinge, installed three rivets in the canopy frame hinge to make it easier to remove (if needed later on). Placed canopy frame onto fuselage and aligned it 1/2" from the turtle deck with 3D printed spacer blocks. Clamped canopy frame into place then made 1/8" spacers to simulate the canopy thickness between the canopy frame and hinge. Pilot drilled spacers then clecoed together to mockup final canopy frame location. On LH side, marked location of alignment pins on the LH longeron and updrilled holes to "lose" 1/4". Installed canopy alignment pins and tested operation of canopy frame; seems to function well. Trimmed canopy to factory marked trim lines and mocked up onto fuselage.



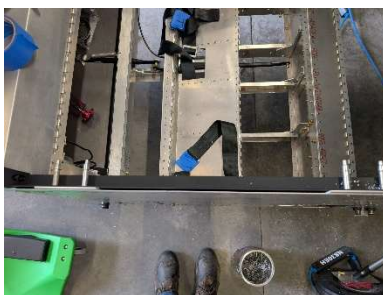
Installed canopy hinge with a few rivets (to start)



Canopy frame located with help from spacer blocks



Canopy frame mockup



Spacers clecoed for canopy



Alignment pin holes drilled in LH upper longeron



Alignment pins installed in canopy frame



Initial trimming of canopy

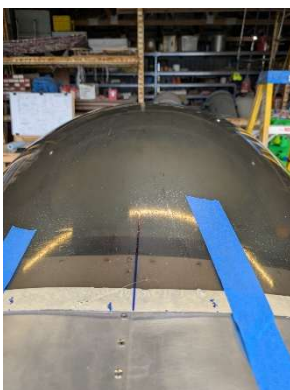


Canopy laid onto fuselage

Canopy Trimming – Part 1

September 19, 2025 | Hours Worked: 4.07

Started the tedious process of fitting and trimming the canopy. Started by marking the center of the front and rear edges of the canopy and aligning them with the fuselage center line. Scooted canopy up to the front and marked a trim line with most of the canopy hanging on the back of the turtle deck. Trimmed front edge of canopy using an oscillating tool, then sanded with 80 grit and deburred edges. Continued to trim and sand until getting a uniform $1/16"$ on front of canopy. Tapped canopy into place then taped a trim line onto the back part of the canopy. Trimmed large section off the back edge then checked fitment again. More marking, trimming, and sanding until canopy fit between windshield and turtledeck (albeit tightly). Taped sides down and noticed that sides bulge out quite a bit when canopy is relaxed. Will seek advice before proceeding.



Centerlines marked on canopy



Front trim line marked



Marking rear trim line with tape



More marking and trimming



Rear trim line marked with tape



Third round of trimming



Canopy slightly bulging on sides



Top canopy line looks good



Canopy slightly bulging on sides



Canopy trimming progress to date

Canopy Trimming – Part 2

September 24, 2025 | Hours Worked: 3.85

Continued to trim canopy by taking small bites with 80 grit sandpaper and scotchbrite die grinder. Cleaned edges with deburring tool after each cut. Trimmed canopy so that majority of it would fit in

between windshield and turtle deck. Once rough trimming was complete, drilled pilot holes for clecoes looking through canopy at bows. Started drilling and clecoing from top center and worked about halfway down each side. After drilling and clecoing a hole, further trimmed both front and back edge to maintain a $1/16"$ gap. Multiple rounds of trimming were needed as the canopy became constrained and pulled towards the canopy frame which pushed the edges out a bit. On RH side, removed spacers between canopy frame and hinge and marked cut line for RH side of canopy. Removed canopy and made big cut. Aligned canopy between frame and hinge and pilot drilled RH hinge holes through canopy.



More trimming and began clecoing canopy to frame



Working on preserving $1/16"$ gap on aft side of canopy



Continuing to trim



Cutline marked on RH side of canopy



RH side clecoed to hinge



RH side canopy profile



Lower RH rear corner sticking out just a bit



Canopy progress to date

Canopy Trimming – Part 3

September 27, 2025 | Hours Worked: 4.77

Parts Used: 04-00218, AN365-1032A, AN960-10, McMaster Carr 2868T34, MS24694-S53, MS24694-S67

Continued to trim and fit canopy. Matched drilled final holes in LH side of forward and aft canopy bows and realized that canopy was pulling up the frame in the front by about $1/4"$. Unbolted front left corner of canopy frame and added $1/8"$ spacer to lengthen the front bow area. Also added rubber washers between canopy and frame to drop frame down a bit more. After resetting canopy frame location, marked cut line on LH side of canopy with masking tape and trimmed. Removed canopy from frame and transferred holes from canopy side trim to LH canopy frame side. Reinstalled canopy onto frame then marked location of latch pass through. Cut out canopy latch arm pass through then clecoed completed canopy to frame. Needed to file latch mechanism a little to remove paint from pivot points. Countersunk latch pin holes in fuselage and installed latch pins. Installed latch onto canopy frame and realized that latch slots would need to have about $1/8"$ removed from forward side in order to clear latch frame when closing canopy. Removed material with rotary cutter then filed edges; will need to paint later. Tested canopy latch mechanism and need to updrill pin holes slightly to F size and remove a little more material from bottom edge of latch slots.



LH canopy side cut line marked



Canopy frame pulling up in front



LH side trim clecoed into place



Latch pin holes countersunk



Latch mechanism filed and trimmed



Latch mechanism installed



Canopy almost installed

Canopy Trimming – Part 4

September 30, 2025 | Hours Worked: 5.30

Updrilled canopy alignment holes in upper longeron with #F drill bit. Continued to trim, sand, and deburr canopy to achieve 1/16" gap all around; finally achieved. Worked on latch mechanism by removing lower nylon washers to lower latch assembly slightly. Used a light coating of LPS-2 between canopy frame and latch to make it slide better. Using inspection camera, determined that a small amount of metal needed to be removed from the bottom side of the canopy latch upper slot to prevent binding. Reshaped latch slots using file until canopy latch mechanism worked smoothly. Finally latched canopy into place and verified fitment and gaps all around. Pilot drilled final end holes in LH side

canopy trim. Removed canopy bubble and sanded all edges with 80 grit sandpaper followed by 220 grit. Once all rough spots were knocked down, deburred edges with metal deburring tool. Removed plastic from area around attach holes and updrilled canopy holes to 9/64" using specialty plastic bit. Deburred holes then countersunk top side with hand deburring tool for countersunk washers, checking fitment along the way. After finishing prepping the canopy for final install, began tapping canopy frame holes for 6-32 screws. Broke tap off in first hole so will need to remove before moving on.



More canopy trimming



Checking clearance between canopy and fuselage



Aft side of canopy final fitment



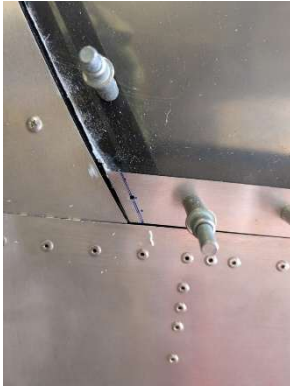
Checking clearance between canopy and fuselage



RH aft side canopy final fitment



Upper canopy latch slots filed for tight fit but smooth operation



End holes drilled in LH side canopy trim



Canopy removed and edges sanded



Cutting scraps from canopy



Deburring and countersinking canopy holes



Canopy finishing complete



Broken tap in aft canopy frame



Final fit of canopy obtained

Broken Tap Extraction

October 2, 2025 | Hours Worked: 1.82

Spent most of the time getting the broken off tap out of the canopy frame. Tried to remove it with cutting fluid, heat, and punches but would not budge. Ended up purchasing two solid carbide drill bits and slowly drilling out the tap. Boogered up the hole a bit in the process but the canopy frame should still

be useable; will plan on using longer 6-32 screw and small nut on the inside. Finished tapping the rest of the canopy frame holes but using cutting fluid. Will clean heavily before attaching the canopy.



Tap mostly drilled out



Tap removed and hole updrilled



Tap carnage



Canopy holes tapped

Canopy Installation – Part 1

October 4, 2025 | Hours Worked: 2.40

Parts Used: 04-00397, 5108N327, AN365-632A, MS24693C26, SNB-D02-02, SNB-D02-14

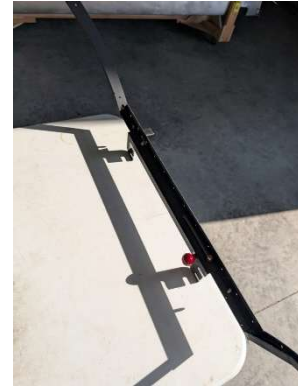
Began final canopy installation by drilling the rest of the hinge rivet holes in the upper longeron and installing rivets. Quick painted the rivets by hand with a brush along with other minor touchups of black paint. Updrilled canopy hinge and side trim holes to 9/64" and deburred. Installed closure spring on the canopy latch mechanism then reinstalled canopy latch onto canopy frame lubricating with LPS-1. Began attaching canopy bubble to frame using countersunk screws and washers and rubber washers as needed per trial fit. Will wait to attach sides until hinge half and side trim are painted. For the hole that was wallowed out by the broken tap, installed longer countersunk screw and lock nut through enlarged hole.



Hinge rivets installed and painted



Hinge and trim holes updrilled



Latch assembly installed with return spring



Through screw and nut installed in wallowed hole



Canopy being attached to frame



Canopy being attached to frame



Canopy being attached to frame

Canopy Installation – Part 2

October 11, 2025 | Hours Worked: 0.77

Parts Used: AN365-632A, AN365C-632, SNB-D02-15

After painting, installed canopy side trim and canopy hinge half onto canopy assembly with 6-32 screws. Canopy ready for installation onto fuselage once paint is complete.



Canopy side trim installed

Canopy Installation – Part 3

October 23, 2025 | Hours Worked: 1.55

Parts Used: AN315-3, AN365-1032A, AN520-10R10, AN960-10, AN960-10L, McMaster-Carr 98404A004, SNB-D02-20

Reattached canopy to fuselage with hinge pin and verified fitment along front and rear edges along with latch operation. Installed canopy retaining strap and tested operation. Located hole for canopy latch pin and drilled into upper longeron. Will remove plastic from inside and outside of canopy once aircraft is complete. Canopy task now complete!



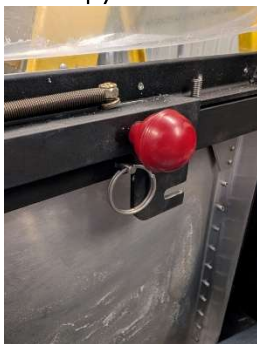
Canopy reinstalled



Canopy reinstalled



Canopy strap installed



Lock pin hole drilled

Section 3: Electrical

Landing Lights

RH Landing Light – Part 1

June 28, 2024 | Hours Worked: 1.90

Installed nut plates in RH Ribs 11 and 12, trimmed mount plate per instructions, and installed in RH wing.



Light mount plate assembled



Outboard ribs with nutplates installed



Light mount plate riveted



Mount plate screwed into place

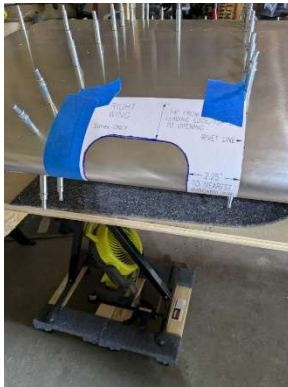


Mockup of landing light

RH Landing Light – Part 2

July 5, 2024 | Hours Worked: 1.59

Cut landing light hole into leading edge and deburred opening. Installed upper retaining hardware into wing including flush rivets. Will wait to do the rest of the installation until wing is in final form to ensure tight fit of landing light lens.



Landing light cutout template



Cut template



Rough cut



Edges cleaned up



Skin dimpled for upper retaining angle



Upper retaining angle installed

RH Landing Light – Part 3

July 16, 2024 | Hours Worked: 0.38

Parts Used: AN526-832R8, K1000-8

Replaced light retainer nutplates for #8 screws on RH landing light mount and reinstalled



Nut plates upsized

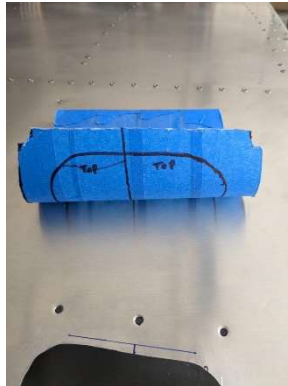
RH Landing Light – Part 4

July 19, 2024 | Hours Worked: 1.35

Created lower retaining bracket per instruction manual; substituted solid rivets for pull type. Masked off landing light lens and fit into place. Began trimming lens for width and began trimming upper lip.



Lower retaining bracket



Landing light lens partially trimmed

RH Landing Light – Part 5

July 20, 2024 | Hours Worked: 2.07

RH lens trimmed, attached to lower retaining clip and installed in opening with sealant around opening. Little bit of a gap on inboard edge; will monitor for water intrusion. Needed to heat lens a little with heat gun to get okay fit.



Final lens trimming



Lower bracket taped into place



Final assembly – bottom



Final assembly – top view

LH Landing Light – Part 1

August 6, 2024 | Hours Worked: 1.57

Removed ribs #11 and #12 from LH wing assembly and installed #10 nutplates into rib. Also installed #6 grounding lug into #12 rib. Began trimming light mount plate and re assembled with clecoes



Mounting plate nutplates installed



Ground lug nutplate installed



Mounting plate trimmed and clecoed together

LH Landing Light – Part 2

August 8, 2024 | Hours Worked: 0.55

Parts Used: AN526-832R8, K1000-8

Riveted together both sides of light mount plate. Installed #8 nutplates into mount and secured LH landing light and retaining ring to mount. Mounted complete light assembly onto forward ribs and checked operation of light.



Two ends riveted together



#8 Nutplates installed



LH light mount assembly complete



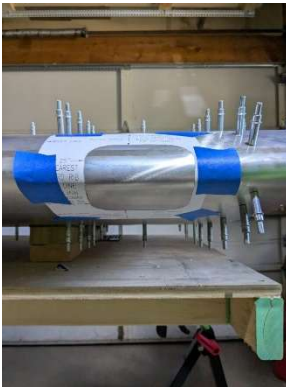
LH light assembly mounted into wing aimed full down

LH Landing Light – Part 3

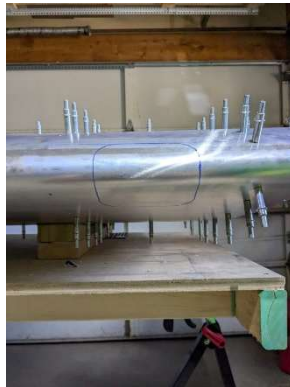
August 13, 2024 | Hours Worked: 2.58

Parts Used: AN526-632R8, K1000-6

Laid out landing light template on LH wing and trimmed opening for landing light lens. Cleaned up edges with rotary tool and scotchbrite pads. Created upper retaining bracket and riveted into place. Created lower retaining bracket and temporarily secured with #6 screws. Opted to not use flush screws on lower retaining bracket.



Template in place



Outline of landing light hole



Opening rough cut



Edges cleaned up



Holes drilled for upper lens retainer



Upper retaining clip



Lower retaining clip



Landing light hole complete
(minus lens)

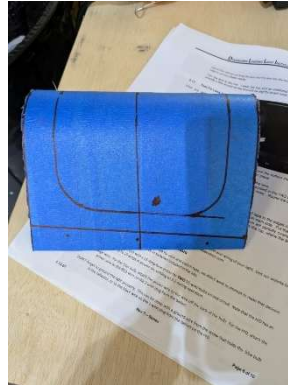
LH Landing Light – Part 4

September 1, 2024 | Hours Worked: 2.07

Protected LH landing light lens with painter's tape and fit into opening. Trimmed lens per instructions, cleaned up all edges with rotary tool, and installed lower retaining strip with double-sided tape and packing tape. Felt strip installed around landing light opening.



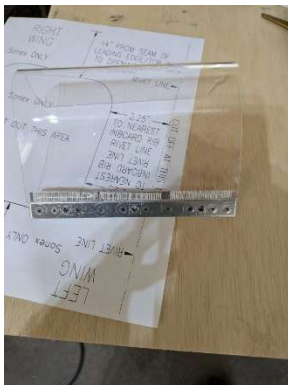
Lens blank inserted into opening



Cut lines on lens blank



Landing light lens trimmed



Lower bracket attached to landing light lens



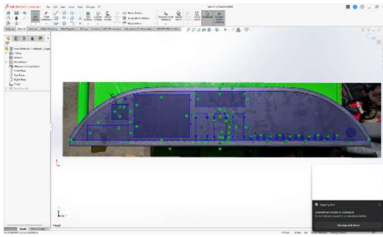
Landing light lens installed

Instrument Panel Design

Creation of Panel CAD Model

December 28, 2024 | Hours Worked: 5.00

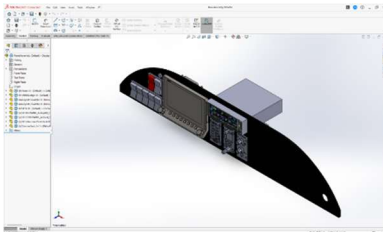
Uploaded picture of panel into SolidWorks and created model of panel blank. Downloaded .STEP files of Dynon components and modeled cutouts per installation instructions.



Starting to Place Components

December 29, 2024 | Hours Worked: 3.00

Created assembly file and began fitting components to panel cutout in SolidWorks. Created rough model for switch panels and GPS175 and inserted into panels. Laid out cutouts for panel power, light dimmer, and circuit breakers. Need to model cutout for ignition switch once dimensions are determined.

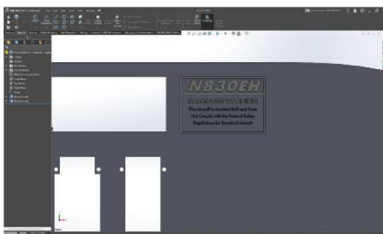


Panel assembly in SolidWorks

Panel Decals

December 31, 2024 | Hours Worked: 4.34

Updated CAD design to include tail number and passenger warning. Modeled trim wheel and updated dimensions for GPS175. Printed out design full scale and mocked up on actual instrument panel blank



Passenger warning text

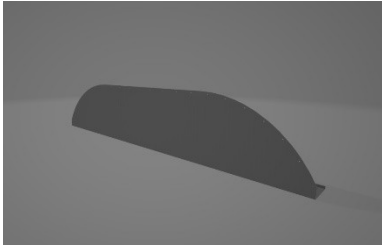


Full size template printed

Panel Redesign – Part 1

March 26, 2025 | Hours Worked: 2.08

After discovering issues with the panel cover, reached out to Sonex tech support and obtained original STL file. Printed out layout and compared to existing panel blank; much better fit. Converted STL into SolidWorks file for panel redesign.

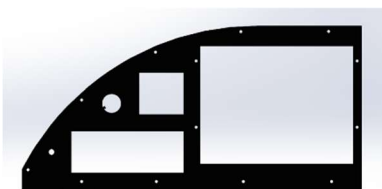


Panel file supplied by Sonex

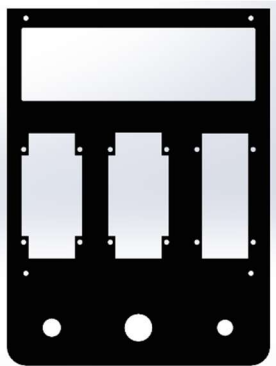
Panel Redesign – Part 2

March 27, 2025 | Hours Worked: 5.10

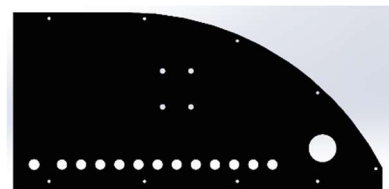
Started to redesign panel layout. Used most of old drawing but transferred and confirmed dimensions into new files. Split panel into three separate files to make import into Front Panel Designer easier. Opted to remove bottom features due to clearance issues with ignition switch. Added bottom panel for throttle, mixture, and trim controls.



New left panel design



New center panel design

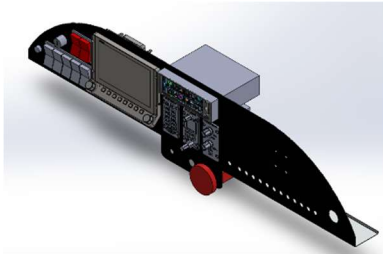


New right panel design

Panel Redesign – Part 3

March 28, 2025 | Hours Worked: 2.89

Designed cutouts in stock panel blank to make panel cover removal easier. Began recreating assembly drawing with updated panel covers. Still need to model throttle and mixture controls along with circuit breakers.



New panel assembly drawing

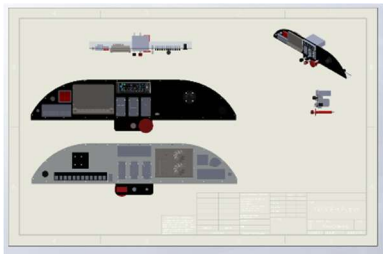


Cutout design for panel backer

Panel Redesign – Part 4

March 29, 2025 | Hours Worked: 1.86

Finished designing instrument panel assembly and creating drawings to print mockups prior to manufacturing



Panel drawing sheets

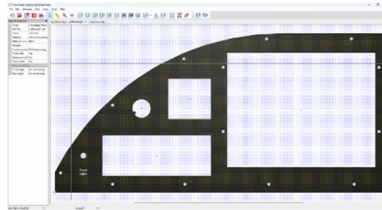
Panel Redesign – Part 5

April 16, 2025 | Hours Worked: 1.67

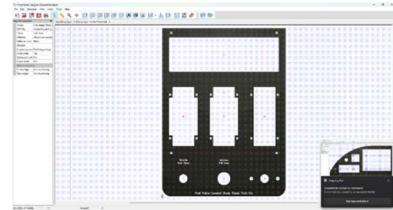
Exported panel files in Solid Works to DXF format to upload into Front Panel Designer. Imported files and began placing text on panels. Used Futura font and 10pt size in most places. Printed out front panel designs full scale and taped to a cardboard mockup for test fitting once more panel components arrive.



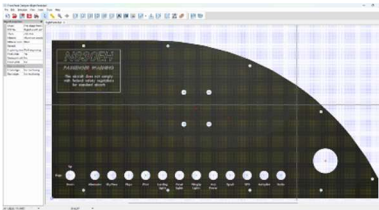
Panel print mockup placed on cardboard



Left panel design with text



Center panel design with text



Right panel design with text

SNB-E01: Avionics & Electrical System

RH Wing Wiring

July 18, 2024 | Hours Worked: 3.03

Parts Used: AN526C-632R6, Heyco 2030, K1000-6

Created grounding lug in RH Rib #12 for tip light and landing light. Created RH wing wiring harness and routed through snap bushing in lightning holes and tubing support plates. Created new hole in main spar tip web to relocate connector aft of main spar. Maintenance loops created in pitot wiring harness and landing light runs. Deutsch connectors used throughout. Created connectors RW01, RW02, and RW03. Need to test circuits, connect up pitot tube (once wing painted), and tip lights once procured. Work needed prior to closing up wing complete.



RH tip grounding lug



RH main spar tip web snap bushing



RH wing main connector (RW01)



RH inboard wiring run



RH wing mid-span run



RH wing wiring



RH landing light wiring with maintenance loops



RH wing tip connector (RW03)

LH Wing Wiring

August 31, 2024 | Hours Worked: 1.50

Parts Used: AN526C-632R6, Heyco 2030

Drilled passthrough hole in LH tip web and installed Heyco 2030 snap busing. Installed left wing wiring harness for tip and landing light. Created connectors LW01 and LW02 (DT style) and wired landing light. Landing light ops check good. Wrapped wiring harness near outboard vertical stiffener with

shrink tube and placed tape on stiffener to prevent rubbing. Updated wiring diagram and connector table.



Setup for easier wiring runs



LH landing light maintenance loops



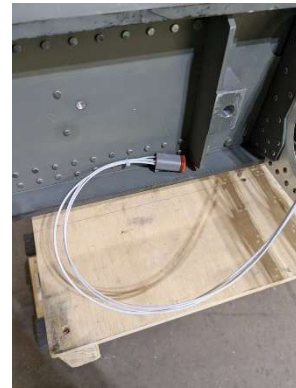
Bushing installed in tip web



LH vertical stiffener area



LH nav light harness



LW01 connector complete

Wing Root Electrical Connectors

June 26, 2025 | Hours Worked: 3.27

Parts Used: 5340N14, 5340N18, 5779K279, AN365-832A, AN526-832R8, AN960-8

Removed rigging hardware from main wing spars through the three center holes in the spar webs. Slid RH wing out slightly for better access to fuselage side. Located wing root electrical connector and cut out hole for pass through. Drilled mounting holes then used 8-32 screws to attach bulkhead connector to fuselage side. Measured out pitot and AOA tube bulkhead connectors and drilled mounting holes. Trimmed pitot and AOA tubes then tested fit by sliding wing into position; fit checked good. Reversed wing attach pins then slid out LH wing and repeated the process for the smaller LH wing electrical bulkhead connector. Checked fitment the reinstalled wings. Verified proper clearance of connections in both wings with borescope.



Slid out RH wing and located bulkhead connector



RH bulkhead connector inside view



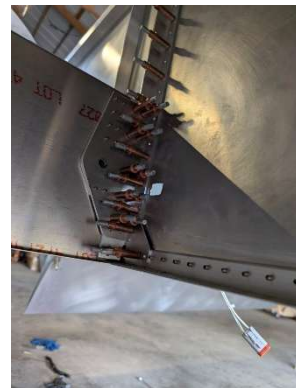
Pitot and AOA tube connectors mounted



Pitot and AOA tube connectors mounted



RH wing connections made



LH bulkhead connection hole cut



LH bulkhead connector installed



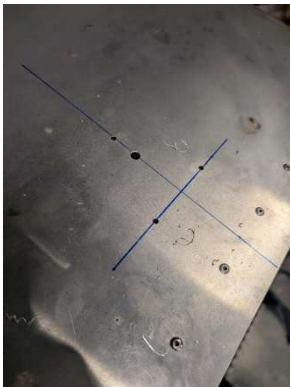
LH bulkhead connector installed

Compass Mount Prep

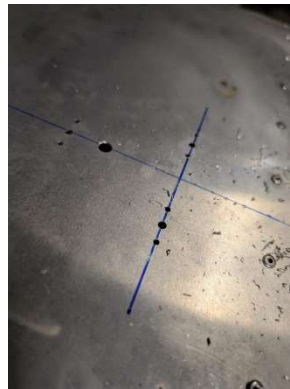
August 28, 2025 | Hours Worked: 1.28

Parts Used: K1000-6

Removed GPS175 tray from panel for better access. Marked out alignment guides on glareshield for compass. Pilot drilled holes using compass as template then updrilled for #6 screws. Used nut plate drill guide to drill nutplate mounting holes. Deburred holes and installed nutplates. Drilled 1/4" hole in center of layout and installed rubber grommet for wire pass-through



Holes drilled for compass



Nutplate holes drilled and deburred



Nutplates and grommet installed



Tested install of compass

Mounting of FWF Electrics

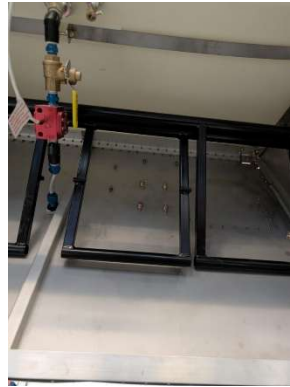
November 5, 2025 | Hours Worked: 2.87

Parts Used: 100412-000, 11-03161, AN3-4A, AN3-5A, AN366F-428A, AN4-6A, AN525-10R10, AN960-10, AN960-416, K1000-3, S8007-3, STS-S12 [81190433], XB102-1 [2BK50D1U36]

Began mounting FWF components on firewall by laying everything out in a logical order then marking and drilling mount holes. Installed nutplates for all fixtures to enable easy replacement in the future. Temporarily mounted starter solenoid and voltage regulator for now pending proper bolts and ring terminals for ground wires.



FWF electrical components
mounted



FWF electrical components
mounted

FWF Wiring – Part 1

November 6, 2025 | Hours Worked: 2.75

Parts Used: AN363-1032, AN525-10R8

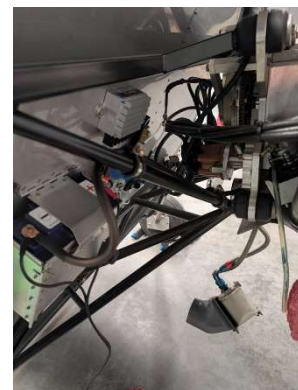
Continued working on firewall forward wiring by making battery cables for master relay, starter relay, and amp shunt. Created ground cable for engine and attached to engine mount plate bolt then secured cable to engine mount with Adel clamps.



Cable from battery to master
relay



Electrical distribution cables
made



Engine ground cable secured
to engine mount

FWF Wiring – Part 2

November 11, 2025 | Hours Worked: 3.92

Parts Used: 61-300, AN365-1032A, AN4-4A, AN525-10R6, AN960-10, GB24

Replaced temporary bolts in starter solenoid with proper length bolts. Added extra bit of wire to alternator wires with solder splices and finished wiring and mounting voltage regulator and capacitor (minus the reset button). Drilled LH and RH grommet holes through firewall and clecoed grommet covers into place; will rivet when wiring is completed. Made a mount for the ground block out of 0.032" scrap sheet and riveted to LH upper longeron behind instrument panel. Attached ground block to mount plate then ran 12 AWG main ground wire from battery to GB24 ground block.



Voltage regulator wiring mostly complete



RH firewall passthrough grommet installed



LH firewall passthrough grommet



Grommet plates clecoed into place



GB24 ground block mounted behind instrument panel

Starter Switch Wiring

November 12, 2025 | Hours Worked: 1.58

Parts Used: A-510-2K [68845]

Started working on ignition switch wiring harness by stripping back shielded wire for p-leads and soldering on solder sleeve to switch ends. Added terminals for switch end of wires then ran wires through firewall to ignition coils and starter relay. Will terminate ends at ignition coils in the future.



Switch end of ignition harness complete



Routing wires loosely on LH side of forward fuselage



Diode added to starter relay

Ignition Coil Wiring

November 16, 2025 | Hours Worked: 3.23

Parts Used: LeftPanel

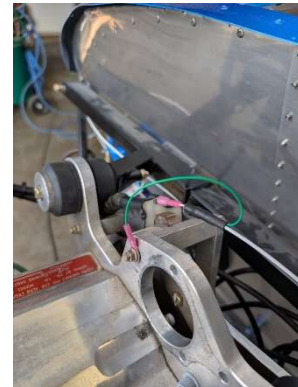
Installed LH panel onto panel backer then secured ignition switch into panel. Added solder sleeves and terminals to engine end of ignition wires then attached to engine mounts and ignition coils. Added diode to master relay and ran master relay control wire back to panel. Began wiring switch receptacles by creating daisy chains for LED lights in switches.



LH panel installed



LH ignition coil wiring



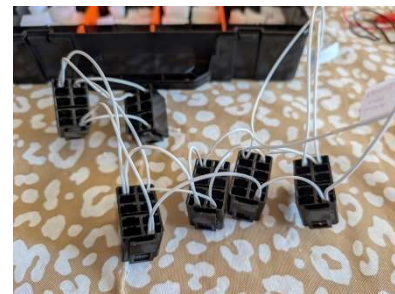
RH ignition coil wiring



Master relay control and diode added



Switch LEDs daisy chained



Switch LEDs daisy chained

Panel Lights Installation

November 18, 2025 | Hours Worked: 4.30

Parts Used: 91355A900, ASSC01, BTFFCOB5M12V8MM480LWIP30R, CenterPanel, CG008JABC

Fabricated panel lights harness for panel light dimmer using Molex connectors to save space behind panel. Opted to branch out individual harnesses for each device needed the dimmer switch rather than bundling components together. Made one extra panel light circuit in case the auto dimmers on the avionics aren't effective. Installed dimmer switch into panel along with harness. Finished switch connectors for master switch and avionics switch, then installed switches into panel. Cleaned the underside of the glareshield with acetone, then cut LED panel light strip to size, stuck to underside of glareshield, installed Molex connector, and connected to dimmer switch. Installed Molex connector onto compass with solder sleeves and jumper wires since compass wires were too thin for terminals. Temporarily connected bus wires together to check operation of lights and master switch. Installed center panel cover.



Panel lights harness fabricated



Panel dimmer and two switch gang wired and installed into panel



Panel light strip installed and tested

Main Switch Panel Wiring

November 22, 2025 | Hours Worked: 2.23

Parts Used: ASSC02

Created harnesses for main panel switches leading to circuit breaker panel and wing root connectors. Laid out wiring path for each wing root connector and placed securement points. Installed main switch panel into LH side of panel and tested panel lights.



Tip light harness created



Main switch panel installed



Fuselage side harness securement laid out

Circuit Breaker Mounting

November 22, 2025 | Hours Worked: 1.22

Parts Used: 7277-2-10, 7277-2-2.5, 7277-2-5, 7277-2-7.5, AN3-5A, AN365-1032A, AN526-632R4, AN960-10, CDA110, RAM-iPad

Bolted Ram mount base to RH panel cover using AN3 hardware. Cut copper bus bars to size and drilled circuit breaker holes at 0.8 inch spacing. Installed circuit breakers into RH panel cover then secured bus bar onto bottom terminals of circuit breakers with 6R4 screws. Used two separate bus bars for circuit breakers; one for the primary (master switch) bus and one for avionics bus.



Main bus bar cut and drilled



Ram mount base installed



Circuit breakers and bus bars installed



Circuit breakers installed

Circuit Breaker Wiring – Part 1

December 17, 2025 | Hours Worked: 1.37

Parts Used: 91355A900, AN526C-632R6, RightPanel

Began terminating panel wires to RH panel cover and circuit breakers. Connected master relay, master switch, and avionics switch wires to bus bars then connected available components to top of circuit breakers. Screwed RH panel cover into place onto panel backer. Should have enough room to attach future components with circuit breakers in place.



Connecting wires to circuit breakers



RH panel installed



RH panel installed



Mocking up orientation of iPad mount

Avionics Sub-panel – Part 1

January 30, 2026 | Hours Worked: 2.30

Parts Used: SNX-Z04-03 (96)

Created avionics sub-panel (shelf) from Z04-03 stock. Made mounting hinge pieces from -5 piano hinge to allow for more adjustability. Mocked up shelf locating behind panel and in front of fuel tank and pilot drilled hinges to upper longerons then to shelf. Removed assembly, updrilled hinge halves, then riveted hinge mounts to upper longerons. Riveted other hinge mounts to shelf then verified fitment behind panel.



Sub-panel components
prepped



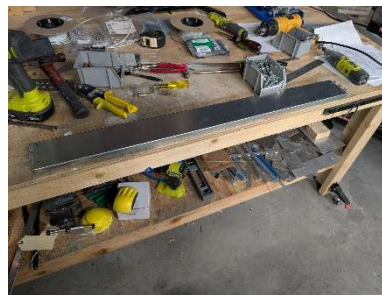
Sub-panel test fit



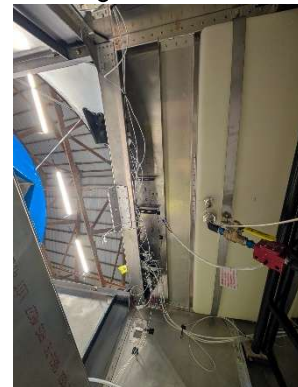
RH hinge mount riveted



LH hinge mount riveted



Sub-panel shelf riveted



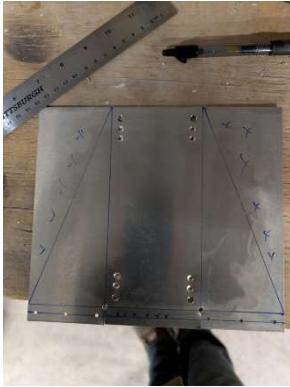
Avionics sub panel mounted

Avionics Sub-panel – Part 2

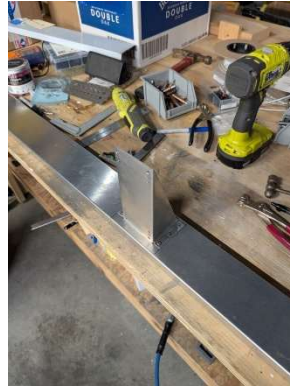
February 2, 2026 | Hours Worked: 4.97

Parts Used: 103917-000, AN526-832R8, DW-WW-II, K1000-8, K2000-8, SV-ARINC-429 [3752], SV-BAT-320 [56966], SV-EMS-220 [11104]

Created mount angle for EMS and ARINC module from scrap 0.032 sheet due to lack of clearance for modules with connectors on both ends. Riveted nut plates to vertical mount and then riveted mount to avionics shelf. Laid out backup battery, wig wag module, and fuel probe box onto shelf and marked mounting holes. Installed nut plates for components then mounted items to shelf. Installed Dynon EMS and ARINC modules onto bracket using stacking kit to save space. Created DT connector harness for wig wag module then finished running wires for landing lights. Also ran strobe sync wire as well. Installed fuel probe box onto avionics shelf then ran new ground from base of probe to box mounting hole and co-located box ground to the same place. Added Molex connector for fuel probe power and signal.



Flat pattern of Dynon box vertical mount



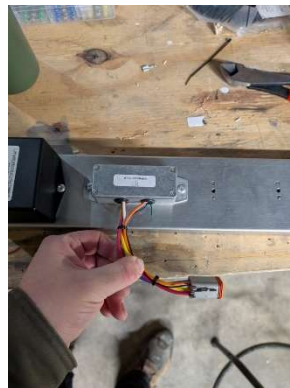
Dynon box bracket bent and riveted to avionics shelf



Adding mounting holes and nut plates



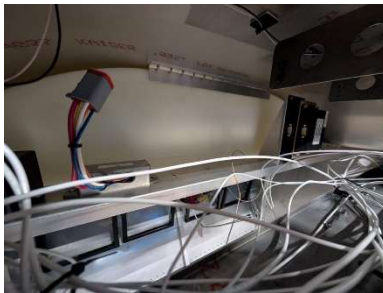
SV-BAT-320 and wig wag module mounted



DT connector added to wig wag module



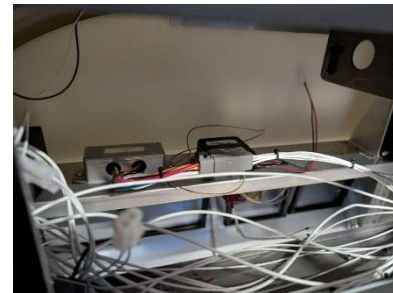
Almost all components mounted on shelf



Shelf installed behind panel



Landing light harness wired up



Fuel probe box mounted

Wing Root Wiring

February 6, 2026 | Hours Worked: 2.87

Parts Used: 100399-000 [052925], 100399-002 [070825], AN365-632A, AN526-832R8, AVE-WPSTG-20D [86162-2404-02401], AVE-WPSTR-20D [86161-2404-08386]

Attached wing tip lights to tip light fairings then installed DT connectors. Installed lights and fairings onto tips of wings. Terminated wing root wires at bulkhead connectors and tested functions. Reinstalled

pneumatic bulkhead fittings for RH wing. Installed CHT/EGT harness and ran wires through firewall grommet. Installed engine sensor harness as well.



LH wing root wiring complete



LH wing lighting test



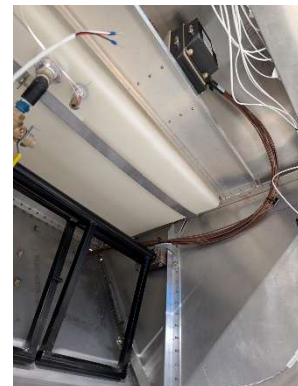
Installing DT connectors onto tip lights



RH wing root connections installed



Testing RH wing lights



CHT/EGT harness installed



Engine sensor harness installed

Fuel System Electronics Wiring

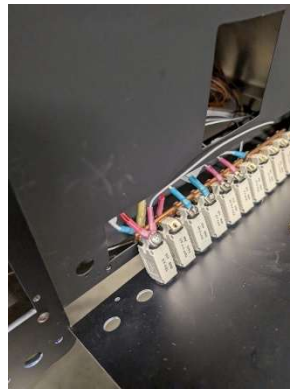
February 11, 2026 | Hours Worked: 1.57

Parts Used: SV-HARNESS-D37, SV-NET-6CC, SV-NET-SPL

Installed Molex connectors on fuel probe and fuel flow transducer and connected components to EMS harness and SkyView circuit breaker. Attached voltmeter input of EMS box to main bus bar. Ran firewall forward wires of EMS harness through gromet to engine compartment. Installed main display harness and hooked up power and ground connections. Connected SV-EMS-220 and SV-ARINC-429 boxes together with SV-NET-SPL and connected to main display. Temporarily installed screen and tested function.



Fuel system electronics connected to EMS harness



SkyView display, voltmeter, and fuel probe leads connected to circuit breakers



HDX screen temporarily installed and tested

AHRS Unit Shelf

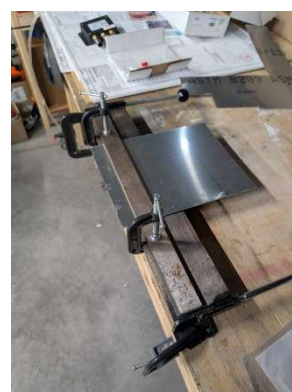
February 12, 2026 | Hours Worked: 1.54

Parts Used: 0.032 Sheet, 04-00217, 104571-000, 5779K115, Dynon 103066-012, SV-ADAHRS-200 [3031]

Installed GPS 175 tray behind panel in preparation for GPS installation. Connected SkyView Wi-Fi adapter to back of display along with USB extension (which will be secured at a later time). Fabricated shelf for SV-ADAHRS-200 box from 0.032 sheet. Bent and cut flat template then clecoed onto back side of the #2 cross tie. Checked levelness of shelf then riveted shelf. Secured unit to shelf with brass and nylon hardware to not interfere with magnetometer. Ran temporary SkyView network cable to display to check operation; ops check good (so far).



Garmin GPS175 tray installed

SkyView USB extension and
Wi-Fi adapter installed

Bending ADAHRS mount

SV-ADAHRS-200 mount bent
and drilledMount secured to cross tie and
leveledSV-ADAHRS-200 until
installed and test cable ran

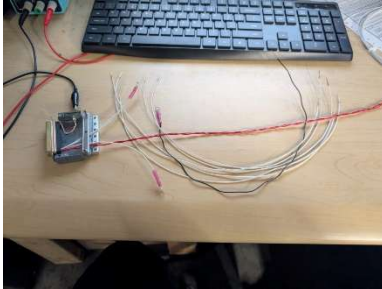
AHRS functions tested

GPS 175 Harness Wiring

February 15, 2026 | Hours Worked: 2.09

Created Garmin GPS 175 and Dynon SV-ARINC-429 harness by cutting wires to length and installing high density Garmin pins on one side and standard density D-sub pins on the other end. Referenced the wiring diagram and Dynon's 3rd party connection guide to fabricate harness. Opted to use

common rail on the Garmin connector for ARINC ground. Had to re-pin config module due to a bad connection.



Wires cut and prepped



Harness manufactured



D-sub pins installed

Garmin GPS 175 Install

February 16, 2026 | Hours Worked: 6.35

Parts Used: 011-04377-00 {5GH002656}, Heyco 2820

Diagnosed GPS175 screen issue by disassembling unit and cleaning and reseating screen ribbon connectors; ops check good. Installed GPS harness onto back of tray and wired-up ground and power connections. Installed unit and tested; ops check good. Fabricated antenna cable from RG400 coax and drilled center holes for both Dynon and Garmin GPS antennas. Spaced center of antennas 9 inches apart per Garmin recommendation. Temporarily installed Garmin antenna and tested; checked good. Extended Dynon display harness for SV-GPS-250 with wire splices and ran wires along RH side of fuselage to baggage compartment. Installed DT connectors on antenna and display harness. Still need to mount antennas so will leave runs long for now. Located OAT probe under RH side of horizontal stabilizer and ran wires along with ELT remote harness along RH side of aft fuselage.



GPS 175 guts

Screen backlight now working
on benchConnector installed in back of
tray

Ops check GPS 175



Crimping Coax connectors

Garmin
GPS antenna runDynon GPS antenna run (will
clean up later)Both GPS receiving
independent positionsOAT probe and ELT remote
wires run from tail section

OAT probe installed under tail

GPS Antenna Install

February 22, 2026 | Hours Worked: 0.83

Parts Used: 013-00235-00 [172079], 101242-000 [0420], AN365-832A, AN960-8, MS24693-S55

Drilled mounting holes for both GPS units on top of turtle deck and installed antennas using MS24693 screws. Applied clear silicone sealant around edges of GA 35 antenna to prevent water intrusion into baggage compartment; did not use sealant under Dynon antenna because a gasket was included. Secured wiring for SV-GPS-250 antenna.



Both GPS antennas mounted



Both GPS antennas mounted

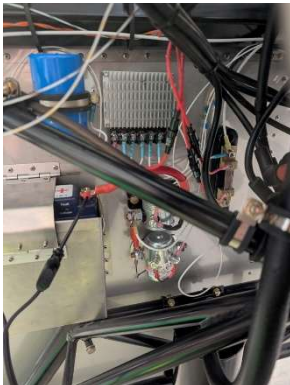


Both GPS antennas mounted

FWF Wiring – Part 3

February 23, 2026 | Hours Worked: 0.89

Terminated amp shunt wires and tachometer lead by installing inline fuse holders with 1-amp fuses. Ran voltage regulator reset line from panel to voltage regulator.



Inline fuse holders installed

Flap Motor Wiring

March 4, 2026 | Hours Worked: 3.03

Parts Used: 2057-SW-PB5-AB3BR112V-IP40-8-ND, RV10035-2

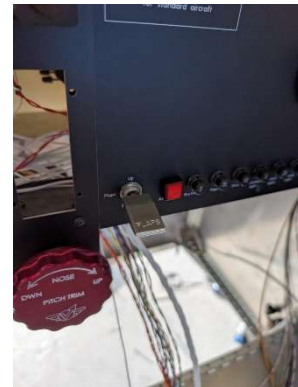
Partially wired flap switch on bench and added extra leads to make installation into panel easier. Installed flap switch into panel and connected ground and power wires. Decided to share ground with alternator reset switch so ran additional wire to reset switch. Used Molex connector for reset switch which contacted outside terminals at the right spacing. Tested voltage regulator reset circuit. Ran flap power wires and position sensor wires along RH side of fuselage and through grommet. Terminated both motor and harness with DT connectors and tested function.



Flap switch installed in panel



Flap and alternator reset switch wiring behind panel



Both switches installed



Flap motor wiring

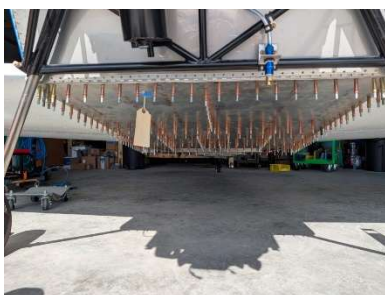
Fuselage Floor Avionics – Part 1

March 25, 2026 | Hours Worked: 4.52

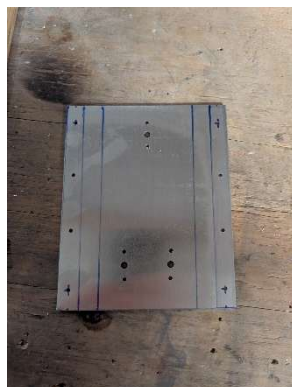
Parts Used: 11-13561, 11-17995, AN526-632R8, AV-17, K1000-6, K1000-8, MS24693-S50, SV-ADSB-472 [16473], SV-COM-T25 [01950], SV-XPNDR-261 [04352]

Clecoed forward fuselage floor back onto fuselage to start under seat component layout. Made riser mounts for ADSB, transponder, and com boxes so that nutplates could be used out of scrap aluminum.

Riveted mounts to fuselage floor behind seat pan and bolted SV-COM-T25, SV-ADSB-472, and SV-XPNDR-261 units into place. Drilled holes for transponder and ADS-B antennas in back corners of forward floor and installed antennas into place. Located com antenna directly behind spar tunnel on fuselage centerline and checked for clearance with elevator pushrod. Drilled mounting holes per Rami template then bolted COM antenna into place.



Forward floor clecoed into place



Riser mount plate blank



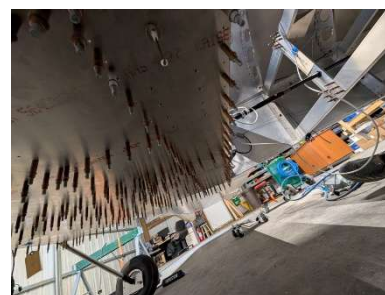
Mount plates bent and drilled



Mount plates complete with nut plates



Mounts riveted to aft section of fuselage floor



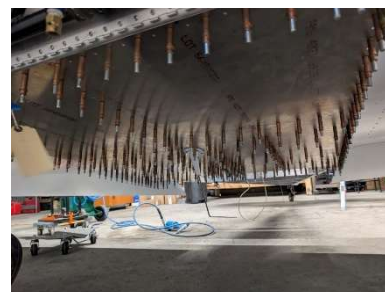
Transponder and ADS-B antennas installed



Marking com antenna mounting holes



Com antenna installed



Com antenna installed



Fuselage floor progress

Fuselage Floor Avionics – Part 2

April 17, 2026 | Hours Worked: 1.85

Fabricated transponder and com antenna cables from parts then installed into airframe. Secured cables to rear spar carry through with adhesive pads.



Making coax connectors



Transponder antenna cable

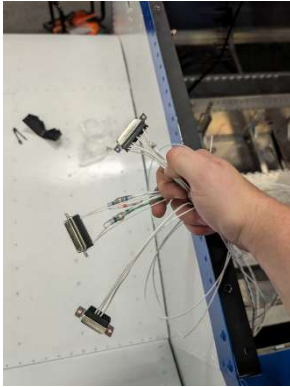


Antenna cables routed and secured

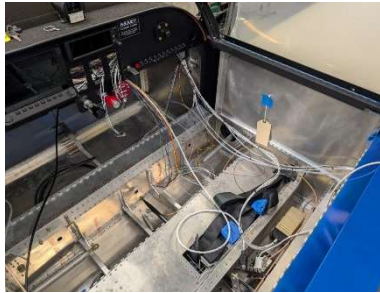
Radio Harness Wiring

April 24, 2026 | Hours Worked: 2.80

Completed wiring harness for the SV-COM-T25 starting at the com radio side. Began harnesses for SV-COM panel and the SV-INTERCOM as well. Will finish populating other harness later.



From top to bottom: Com radio harness, intercom harness, and com panel harness



Com radio harness installed and routed

Transponder/ADS-B Harness Wiring

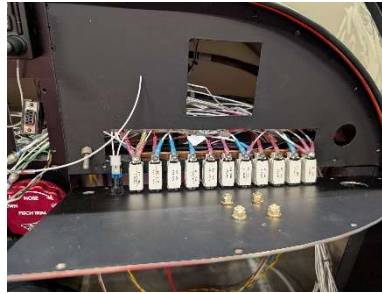
May 2, 2026 | Hours Worked: 4.72

Parts Used: SD16, SV-AP-PANEL/V [14121], SV-COM-PANEL-OLED/V [6038], SV-HARNESS-ADSB, SV-HARNESS-XPNDR, SV-HDX800 [31551], SV-NET-6CC, SV-NET-6INCC, SV-NET-8INCC

Removed RH side panel cover and finished wiring all circuit breakers and power feeds. Installed power outlet on RH side of panel. Left feed wires for autopilot and aux power panel for now. Installed prefabricated transponder and ADS-B harnesses and routed them on RH side of fuselage. Removed flip flop and squat switch wires from transponder wiring harness. Installed 1.21k resistor between GPS175 serial line and transponder per SkyView instructions. Trimmed remaining unused main display wires and taped ends leaving enough room for future upgrades. Installed and routed 6' SkyView network line between ADHRS unit and network hub on LH side floor of forward fuselage. Pulled aircraft outside and force loaded new components into SkyView network and verified transponder and ADS-B configurations.



1.21k resistor in between
GPS175 serial line and
transponder



Circuit breaker panel wired



Routing transponder and ADS-
B harnesses



ADHRS cable routed



Checking configs



TIS-B working

Intercom Harness Wiring – Part 1

May 4, 2026 | Hours Worked: 3.67

Parts Used: 12B, LH-Headset-Panel, RH-Headset-Panel, S1028, S1029, S12B

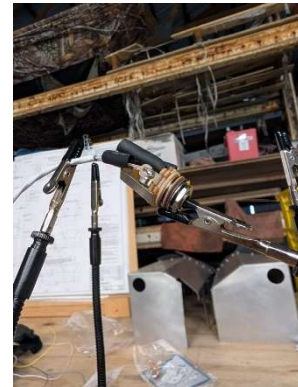
Laid out aft cockpit panels on front formers and marked hole locations. Cut out mounting and component holes in formers, deburred, and riveted plates to fuselage. Measured out length of pilot side headset harnesses and cut three-wire shielded cable to length. Soldered harness onto headphone jack and used heat shrink to protect solder joints on jack. Installed jack into panel using a combination of fiber and shoulder washers. Attached pins to intercom side of harness and installed in D-sub connector. Repeated process for pilot side mic jack except soldered PTT wires directly to jack as well. Added pins to SkyView display audio wires and installed them into the intercom connector. Temporarily connected grounds together and plugged in intercom to test. Ops check good (so far).



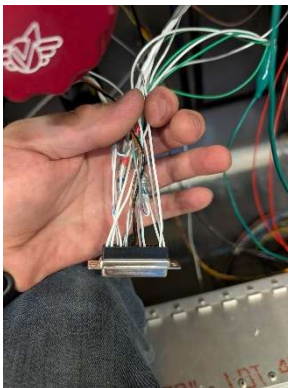
Headset panel holes drilled



Headset panels installed



Soldering connectors onto headset jacks



Intercom harness progress so far



Pilot side headset jacks installed

Intercom Harness Wiring – Part 2

May 6, 2026 | Hours Worked: 3.02

Parts Used: 12B, S1028, S1029, S12B, SV-INTERCOM-2S [6293]

Soldered shielded wire bundles onto copilot headset and passenger jacks. Installed both jacks on copilot side panel and routed wires to main intercom harness. Pinned connects at harness side then tested copilot side audio. Realized the SkyView audio wires were routed under the throttle cable so had to unpin the four display wires and reroute them. Assembled intercom harness shell then zip tied wire bundles. Used solder sleeve to combine mic grounds and large solder sleeve to tie together airframe ground and all shield terminations. Finally installed intercom and tested functionality. Ops check good! Most panel wiring now complete; just need to clean up routing.



Copilot headset jack soldered



Copilot Mic jack soldered



Finished populating intercom harness



Common point for audio and shield grounds



Intercom installed and ops check good

Wiring Cleanup – Part 1

May 19, 2026 | Hours Worked: 4.94

Parts Used: AN526C-832R8, MS24694-S54, SV-NET-HUB

Installed aux power fuse block and SkyView splitter on underside of cross tie box with rivnuts. Worked on organizing and securing wiring under panel with zip ties and adhesive pads. Cut off unused EMS wires and secured into bundle in case of future upgrades. In spots where wire crosses over or under throttle controls, placed rubber hose to prevent wear-through or wire sleeve. Will finalize location of side panel wires once side panel placement is verified. Retested all functions to verify all systems still worked.



Rivnuts installed on bottom of cross tie box



SkyView splitter installed



Aux fuse box installed



Wire routing cleanup in progress

Stick Grip Modification

May 31, 2026 | Hours Worked: 1.04

Opted to modify internal wiring inside the Ray Allen G403 stick grips in order to isolate PTT ground from other function ground. Removed screws in stick grip in order to remove circuit board from plastic housing. The default wiring is set up so that all functions share a common ground and the momentary/latched toggle switch functions are on separate wires. Since I wanted both switch positions to activate the smoke system, I de-soldered the separate white/orange wire from the toggle switch and soldered it to the PTT switch in order to create a separate, isolated ground path for the PTT function. Repeated soldering work on the opposite stick grip then applied function labels to stick grips.



Resoldering stick grip switches
to isolate PTT circuit



Labels applied to stick grip

Stick Grip Installation

June 3, 2026 | Hours Worked: 2.94

Parts Used: G403

Finished securing wiring behind instrument panel and underneath sub-panel shelf. Drilled wire hole in bottom of both control sticks for stick grip wiring. Aligned stick grips and drilled pilot hole in grip and control stick. Updrilled holes and tapped stick for 8-32 set screw. Installed stick grip foam onto each control stick and fished wires through bottom opening with safety wire. Installed grommet into wire holes and secured stick grip onto control stick with set screw. Routed wires on top of control horn frame and secured with adhesive pads and zip ties. Terminated wires into Molex connector.



Panel wiring secured



Foam grip installed and holes
drilled. Using safety wire to
thread control wires through
opening



Stick grip secured with set
screw



Both stick grips installed



Wiring secured and terminated into Molex connector

Stick Grip Wiring

June 7, 2026 | Hours Worked: 1.78

Installed control stick ground wire and autopilot ground wire in GB24 ground block. Ran and routed PTT wires from mic jacks to stick grip harness and began populating fuselage side of connector. Attached aux fuse block power and ground wires to fuse block. Ran smoke system control ground to stick and left extra length on end pending plug placement. Will secure wire bundles once auto pilot servo routing is complete.



Stick grip harness wiring in progress



Ground and power feeds ran to aux fuse box

ELT Installation

June 19, 2026 | Hours Worked: 2.09

Parts Used: AN365-632A, AN526-632R8, E-04 [48244]

Located and drilled hole for ELT antenna on aft portion of turtle deck. Secured antenna to fuselage then routed and connected coax cable from antenna to ELT. Cut hole in RH #1 former for RCPI and

drilled mounting holes. Installed vertical faceplate and A544 alkaline battery into RCPI (battery expires 06/19/2031) then mounted RCPI onto inside edge of former. Installed CR-2 battery into audio alert module (battery expires 09/30/2034) then mounted unit to backside of former with adhesive pads and zip ties. Connected RCPI and audio alert module to ELT and performed system self-test inside of hangar between top of hour and five minutes past; ELT self-test passed.



ELT antenna mounted to fuselage



ELT wiring secured in tail cone



Battery and faceplate installed in RCPI



RCPI mounted



Audio alert module mounted and wiring connected

Autopilot Installation – Part 1

July 13, 2026 | Hours Worked: 1.83

Parts Used: K1000-8

Attached roll servo pushrod to LH control stick frame per Dynon instruction sheet. Tried rough location for roll servo under RH side of forward seat pan and verified clearance and freedom of movement. Transferred mounting hole location to fuselage floor and updrilled holes for mounting bolts. Trimmed provided stiffener angle and riveted stiffener to fuselage floor. Installed nutplates onto servo bracket the test fit bracket onto floor. Removed bracket to mount servo and install servo arm limiter bracket.



Servo push rod attached to control stick horn



Dynon-supplied stiffener trimmed



Stiffener installed and mounting holes drilled



Nutplates installed in servo bracket



Test fit of roll servo bracket



Roll servo installed into bracket and limiter installed

Autopilot Installation – Part 2

July 14, 2026 | Hours Worked: 3.74

Parts Used: 101863-000, 101864-000, AN365-428A, AN4-7A, AN960-416, K1000-8, SV-NET-SERVO, SV32 [15006], SV42EL [25041]

Attached D-sub connector to roll servo wires then installed servo onto fuselage floor. Attached aileron servo push rod and verified servo arm did not contact over center bracket. Roughed in location of pitch servo and marked bracket location on floor. Removed pitch servo and installed Dynon-provided stiffener on floor. Installed servo onto bracket, installed over-center bracket onto servo, and crimped D-sub pins onto wires. Installed pitch servo onto fuselage floor and connected push rod to control stick frame. Wired D-sub connector for roll servo harness and routed wires along front edge of aft seat pan. Added wire protectors along bundle above elevator push rod and stick grip harness. Began routing pitch servo harness in front of seat pan and secured zip ties to finish under seat wiring runs. Spliced

auto pilot power and grounds on LH side harness and ran control wires along the LH side panel harness back to the SkyView hub under the cross-tie box.



Connector added to roll servo



Roll servo installed and push rod connected



Verifying pitch servo location



Pitch servo over-center bracket attached and d-sub pins crimped



Both autopilot servos mounted and push rods attached



Autopilot grounds and powers spliced



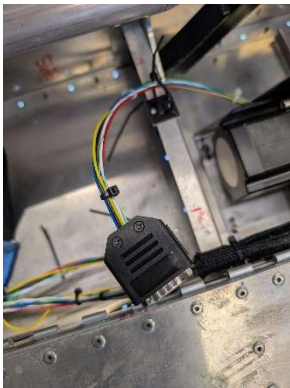
Under seat wiring bundles secured

Autopilot Wrap-up and Smoke System Wiring

July 29, 2026 | Hours Worked: 3.47

Parts Used: SV-NET-SERVO

Finished wiring auto pilot harness. Calibrated servos through the SkyView menu but when the auto pilot test was conducted, the pitch servo could be heard slipping consistently. Took video and sent to Dynon support. Talked with Steven from Dynon Support who informed me that the servos might not be able to move the flight controls on the ground and to rather wait until the in-flight test to verify servo strength. Test would pass when helping the controls, however, and calibration was satisfactory. Will wait until in-flight testing to determine if an issue is present. Completed smoke system wiring from aux fuse box by terminating power, ground, and signal ground into 4 pin DT connector. Installed 5-amp blade fuse into fuse box and tested functionality. Installed seat heat switches into headphone jack panels and wired pre-made harnesses into fuse box with 10-amp fuses. Secured wiring behind upper crosstie box and temporarily plugged seats in to test functionality; ops check good. Wrapped LH fuselage wire bundle with protective jacket. Electrical system complete!



Pitch servo D-sub connector
pinned



AP servo wiring connected to
SV-NET-HUB under crosstie



Smoke system harness wired



Seat heat switches installed



RH seat heat harness wired



LH seat heat harness wired



LH wire bundle wrapped

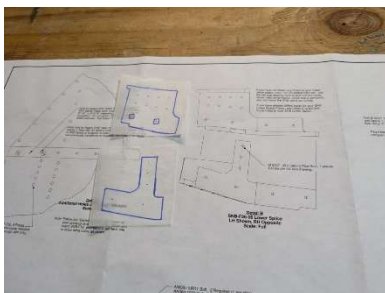
Section 4: Fuselage

SNX-FC01: Fuselage Conversion

Lower Splice Plate Prep

November 1, 2024 | Hours Worked: 1.47

Created tracing paper templates of additional 7 holes to drill in lower splice plates per detail C. Placed tracing paper on splice plates and pilot drilled holes. Located lower splice plates along lower longerons per FC01 dimensions. Removed lower cross tie #1 and vertical channels #1 for better access and pilot drilled and clecoed lower splice plates using combination of strap duplicators and 12" drill bits. Reinstalled previously removed parts. Holes on lower splice plates still need to be transferred to lower cross tie #1 and spacers. Will accomplish when floor is reinstalled.



Templates of holes to drill in lower splice plates



Holes drilled in vertical sides of splice plates



Holes drilled in horizontal sides of splice plates



RH lower splice plate pilot drilled



RH lower splice plate pilot drilled



LH lower splice plate pilot drilled

Hole Filling

October 5, 2025 | Hours Worked: 0.14

Finished fuselage conversion steps by applying JB weld to holes from original side skin left over from conversion process.



JB welded holes in side skin

SNX-F27: Aft Side Panel Channels

Aft Fuselage Side Panel Prep – Part 1

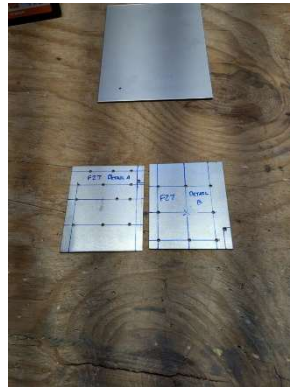
September 17, 2024 | Hours Worked: 6.27

Parts Used: SNX-F27-02L, SNX-F27-03L, SNX-F27-03R, SNX-F27-04L, SNX-F27-04R, SNX-F27-05L, SNX-F27-05R, SNX-Z03-03 (48), SNX-Z03-04 (24), SNX-Z03-04 (96)

Creation of vertical channels (other than -01L/R per conversion plans). Created templates for Detail A and B from .022 scrap stock to speed up process. Drilled 3/4" hole in -02R vertical channel in the wrong location and will order replacement from Sonex due to insufficient raw material for a spare. Cut blanks from Z03-04 and Z04-04, drilled pilot holes per templates, then marked and drilled larger through holes. Used hole cutter to cut 1" holes in -05 verticals.



-04s complete

Templates created for details A
and B

Using template to drill holes



-05s complete



-03s complete

-02L complete. -02R needs
replacement

Vertical channels complete

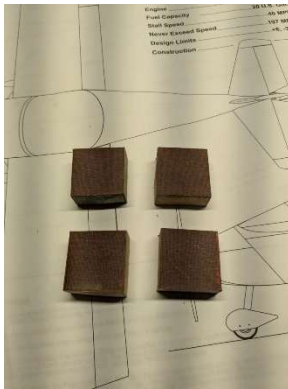
Fairlead Blocks

September 21, 2024 | Hours Worked: 1.24

Parts Used: Aft Side Panels Tags: 3/4" Phenolic Sheet, SNX-F27-09

Cut -09 fairlead mount blocks from 6" x 12" phenolic sheet with band saw. Drilled holes in mount blocks, counterbored rivet holes, and up drilled center hole for cable fairleads. Test fit fairleads. Will

hold off on installing fairleads until rudder cable installation per plan recommendation. Therefore, will not be using -10 fairlead block assembly part number.



Blocks cut



All holes pilot drilled



Rivet holes counterbored



Center hole updrilled. -.09
blocks complete.

Splice Plate Prep

October 22, 2024 | Hours Worked: 0.45

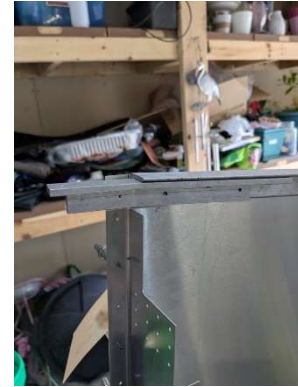
Located and pilot drilled new SNB-F26-04L/R upper splice plates to upper longerons based off of skin bend line. Located and final drilled cable fairlead blocks to #1 vertical channels. Verified alignment with rudder cable holes in vertical channels.



LH upper splice plate located



LH upper splice plate



RH upper splice plate located



RH upper splice plate located

Both upper splice plates pilot
drilled to upper longerons

SNX-F26: Aft Side Panel Longerons

Aft Fuselage Side Panel Prep – Part 2

September 19, 2024 | Hours Worked: 2.48

Parts Used: SNB-F26-01L, SNB-F26-01R, SNX-F26-01

Creation of -01L/R aft fuselage skins from F26-01 skin stock. Cuts followed SXB plans to account for flap drive holes. Simple hole cut in -01L and larger hole cut in -01R for flap drive tube. Rear access holes and rudder cable slots located in same position on both sets of plans. Larger holes cut with circle cutter. Bent forward end of each skin up approximately 10 degrees per plans.



-01R rudder access hole cut



-01R cable hole laid out



Starting
to cut -01R flap drive hole



-01R flap drive hole and
forward edge bent



-01L rudder cable slot and
inspection hole cut



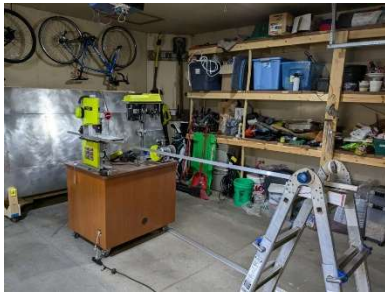
-01L skin complete

Aft Fuselage Side Panel Prep – Part 3

September 20, 2024 | Hours Worked: 1.03

Parts Used: 1x1x0.125x120 Angle, SNX-F26-02L, SNX-F26-02R, SNX-F26-03L

Creation of -02L/R and -03L Longerons. Cut stock with band saw and notched forward ends with rotary tool.



Longeron cutting setup



-03L



-02L



-02R

Aft Fuselage Side Panel Prep – Part 4

September 24, 2024 | Hours Worked: 0.84

Parts Used: 1x1x0.125x120 Angle, SNX-F26-03R

Creation of -03R lower longeron from 1x1x0.125 (120) angle stock



Cutting longerons

Fairlead Block Assembly

September 29, 2024 | Hours Worked: 0.37

Drilled and clecoed F27-09 fairlead mount blocks to #5 vertical channels. Rivets and fairleads not yet installed.



Back side of #5 vertical channel



Fairlead mount block clecoed in place

Rudder Stop Assembly

October 3, 2024 | Hours Worked: 1.12

Parts Used: 1x0.125x6 Bar, SNX-F26-08

Creation of -08 rudder stops from 1 x 0.125 bar stock. Located rudder stop on outside of aft fuselage skins and pilot drilled into place.



-08 rudder stops cut



LH rudder stop mockup



RH rudder stop mockup

Former Clip Creation

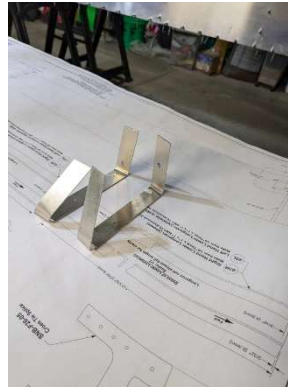
October 22, 2024 | Hours Worked: 0.95

Parts Used: SNB-F26-07, SNB-F26-07L, SNB-F26-07R

Creation of -07L/R former clips from F07 stock. 1/8" radius bends made using 1/4" drill bit in vice. Angles verified with full size plans



Bending -07 former clips with drill bit and vice



-07L/R former clips complete

SNX-F25: Fuselage Aft Side Panels

Aft Fuselage Side Panel Assembly – Part 1

September 24, 2024 | Hours Worked: 1.38

Aligned upper longeron to LH aft side skin per plans and pilot drilled. Longeron set back 1/32" from forward skin bend line and flush with top of skin. Lower longeron aligned along bottom edge of LH aft side skin using skin simulator to offset longeron for bottom skin. Also set back lower longeron 1/32" from forward skin bend line. Both LH longerons pilot drilled in place.



Skin simulator for lower longeron offset



LH upper longeron pilot drilled in place



LH lower longeron pilot drilled in place and offset for bottom skin



Inside face of LH aft tail section

Aft Fuselage Side Panel Assembly – Part 2

September 25, 2024 | Hours Worked: 3.52

Attached lower and upper longerons to RH aft side skin and pilot drilled all holes. Aligned and pilot drilled vertical channels #2 – #5 on both LH and RH aft side panels. Waiting on parts to pilot drill #1 vertical channels and splice plates. Left out hardware for now. Top edge of vertical channels aligned 1/4" below top of top longeron as pictured. Rudder cable holes appear to line up correctly.



Longerons clecoed onto RH aft skin



RH aft panel mockup



RH aft panel mockup



Inside of RH aft panel



Vertical channels 2-5 installed on RH panel



Setting top edge distance of vertical channels



Vertical channels installed



Vertical channels installed

Aft Fuselage Side Panel Assembly – Part 3

November 1, 2024 | Hours Worked: 0.80

Up drilled left and right aft fuselage side panels to #30. Both panels up drilled for rivets per B-model plans. Did not up drill lower splice plate bolt holes.



LH side panel updrilled



RH side panel updrilled

Aft Fuselage Side Panel Assembly – Part 4

November 2, 2024 | Hours Worked: 0.52

Up drilled holes in side skin and lower splice plates for AN525 bolts.



RH bolt holes through lower splice plate



LH bolt holes through lower splice plate

Aft Fuselage Side Panel Assembly – Part 5

November 16, 2024 | Hours Worked: 6.00

Parts Used: AN365-1032A, AN525-10R11, AN530-4-6 (PK screw), AN931-3-5, AN960-10, Heyco 2093, SNB-F25-01L, SNB-F25-01R, SNB-F26-01L, SNB-F26-01R, SNB-F26-04L, SNB-F26-04R, SNB-F27-01L, SNB-F27-01R, SNX-F26-02L, SNX-F26-02R, SNX-F26-03L, SNX-F26-03R, SNX-F26-08, SNX-F27-02L, SNX-F27-02R, SNX-F27-03L, SNX-F27-03R, SNX-F27-04L, SNX-F27-04R, SNX-F27-05L, SNX-F27-05R, SNX-F27-09, SNX-FC01-01L, SNX-FC01-01R, SNX-W18-03

Began final assembly of side panels by deburring, scotchbriting and cleaning all F25 parts. Started by riveting rudder cable fairlead mount blocks to vertical channels #1 and #5. Riveted lower longerons to aft fuselage side skins along with vertical channels #2-#5. Left vertical channel #1 just clecoed for now. Left top row of rivets on vertical channels clecoed per plans. Located lower splice plate and installed AN525 hardware through side skin, lower splice plate, and lower longeron. Installed plastic bushings into vertical channels and rubber bushings in LH assembly. Laid out inspection covers and drilled holes for PK screws. Installed inspection covers. F25 complete!



Cable fairlead blocks riveted



Cable fairlead blocks riveted



RH Aft Side Panel complete

LH aft side skin deburred,
scotchbritten, and cleanedVertical channels prepped for
final assemblyBushings and grommets
installed in vertical channels



AN525 hardware installed in splice plates



Lower splice plate hardware



LH aft fuselage side panel complete



LH inspection cover



RH inspection cover

SNX-F24: Cross Ties

Aft Fuselage Part Prep – Part 1

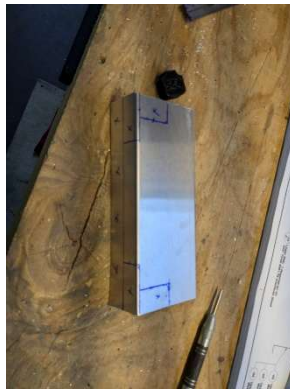
September 29, 2024 | Hours Worked: 4.20

Parts Used: SNX-F24-02, SNX-F24-03, SNX-F24-04, SNX-F24-05, SNX-F24-06, SNX-F24-07, SNX-F24-08, SNX-F24-09, SNX-Z04-02 (96), SNX-Z04-03 (96)

Cut Z04-02 cross tie stock to create upper and lower cross ties. Radius' in lower cross ties made with 1/4" drill bit. Used legacy plans to create cross ties; no pilot holes drilled. Cut Z04-03 for lower Cross Tie #1



Cutting lower cross Tie radii
with 1/4" drill bit



-06 cuts marked



F24-06



F24 parts

Aft Fuselage Part Prep – Part 4

October 22, 2024 | Hours Worked: 0.38

Used F26-05 crosstie plates to pilot drill four new holes in cross tie channel per B-Model plans.



Cross tie splice located to drill
pilot holes in crosstie box

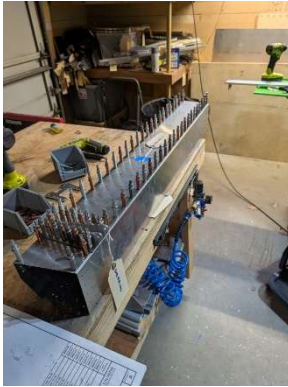


Extra holes in cross tie box
drilled

Aft Fuselage Part Prep – Part 5

November 16, 2024 | Hours Worked: 1.05

Up drilled crosstie box cover and crosstie box. Also up drilled flap motor mount holes on bottom of crosstie box cover plate. Left flap drive mount holes on back of crosstie at 3/32" as they will not be used.



Updrilling of the crosstie box

SNX-F23: Aft Fuselage Details

Aft Fuselage Part Prep – Part 2

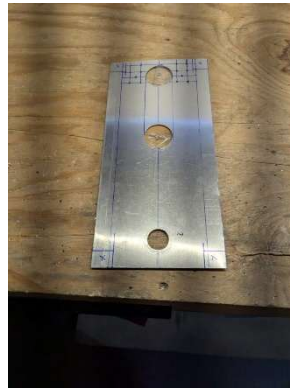
October 1, 2024 | Hours Worked: 6.63

Parts Used: 0.025 Sheet, 0.032 Sheet, 1.5x0.125x9.5 Bar, 2x2x0.125x96 Angle, SNX-F23-02, SNX-F23-03, SNX-F23-04, SNX-F23-05L, SNX-F23-05R, SNX-F23-06, SNX-F23-07L, SNX-F23-07R, SNX-F23-08, SNX-Z02-03 (96)

Creation of F23 miscellaneous parts per legacy plans. Made -02 bulkhead from .032 sheet rather than blank due to not knowing it was available until it was too late. Channel cut with hole cutter. -03 and -04 angles cut on bandsaw, bent to 95 degrees, and holes cut with step bits. -05L/R mount assembly parts created and assembled. Accidentally riveted all fitting holes and needed to drill out some of the first three rows of rivets.



-02 laid out on .032 sheet



-02 holes drilled



-02 cut and ready for bends

Assembly of -05L/R
assemblies-05 assemblies clecoed
together

F23 parts completed to date

Aft Fuselage Part Prep – Part 3

October 3, 2024 | Hours Worked: 1.23

Parts Used: Heyco 2163, SNX-F23-09, SNX-F23-11, SNX-Z02-04 (96)

Creation of -09 and -11 assemblies from channel stock. Since assemblies were simple, skipped documenting intermediate step of creating F23-10 and F23-13 support channels in build log. Following B model plans, took -01 tail wheel mount and drilled 3/16" hole in bottom wall only of through tube.



-11 assembly

Pilot hole drilled in lower side
of tail wheel mount

-09 assembly

SNX-F22: Lower Skin & Spar Tunnel

Fuselage Box Part Prep

October 3, 2024 | Hours Worked: 2.48

Parts Used: 1x1x0.125x96 Angle, 2x2x0.125x96 Angle, SNX-F22-02, SNX-F22-03, SNX-F22-04, SNX-F22-05, SNX-F22-06, SNX-Z02-03 (96)

Creation of miscellaneous aft fuselage parts per legacy plans by cutting angle stock, drilling pilot holes, and riveting -02 aft shear web assembly. -07 spacers relocated from Box 1 to WB-3L.



-04 angle



-06 forward angle



Assembly of -02 aft shear plate



Bottom of -02



Top of -02



F22 complete



05 aft angle

SNX-F21: Fuselage Tail Cone Box

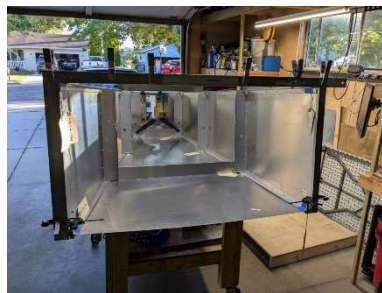
Fuselage Box Assembly – Part 1

October 8, 2024 | Hours Worked: 4.47

Laid out side aft side panels on top of junk F22-01 bottom aft fuselage skin to establish alignment. Set rear aft skin gap of 2.5 inches with clamped-together metal angles and set forward aft skin gap of 40 inches using the same method. Beginning with the right-hand side, squared RH aft side panel to table and bottom skin and drilled/clecoed bottom cross tie to vertical channel working aft to forward. Once bottom cross ties were clecoed to RH aft side panel, squared LH aft side panel to table and bottom skin and drilled/clecoed LH vertical channels. Once bottom cross ties were set, squared aft fuselage frame with metal squares and pilot drilled/clecoed upper cross ties into place. Did not do anything with #1 cross tie due to changes in conversion. Rechecked squareness once cross ties were installed. Pilot drilled and clecoed aft bulkhead into place along with F23-03 Forward Lower Mount Angle and fit vertical tail assembly to check progress. Test fit seemed okay. Still need to fit and pilot drill Details B, F, and M per B-Model plans.



Testing tail fitment on aft fuselage section



Aft side panel spacing set with metal square frame



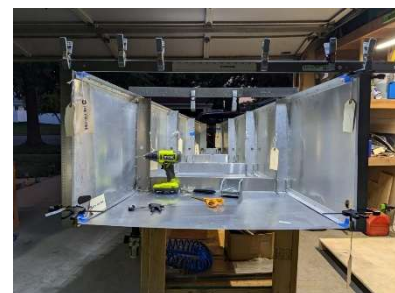
Setting uniform spacing throughout side panel assembly



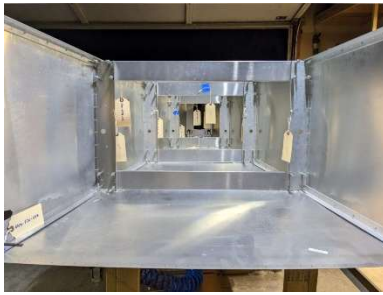
Bottom cross ties pilot drilled



Lower cross ties #4 and #5



Lower cross tie fitment complete



Upper cross tie fitment
complete



Upper and lower cross ties fit,
pilot drilled, and clecoed



Testing tail fitment on aft
fuselage section



Testing tail fitment on aft
fuselage section

Fuselage Box Assembly – Part 2

October 11, 2024 | Hours Worked: 3.74

Parts Used: 2.5x2.5x0.1875x48 Angle, SNB-F21-02, SNX-F23-02, SNX-F23-03

Clamped F23-01 tail wheel mount into place on vertical stabilizer and transferred and upsized mount holes to 3/16". Created F21-02 temporary spacer from 3/16" angle stock for tail box assembly. Mounted, pilot drilled, and clecoed F22-06 angle between #5 cross ties leaving space for F22-02 aft shear web assembly. Removed lower vertical fin post channel from vertical tail assembly and installed F21-02 and T09-03 spacers onto channel to simulate vertical stabilizer spars. Assembled vertical tail post, tailwheel mount, and T12-06 angles with spacers to simulate tail assembly and fit to tail cone box assembly. Noted an approximate 1/8" gap between rear bulkhead and tail wheel mount. Studying plans, it appears that rear bulkhead side holes were incorrectly drilled and rear bulkhead will need to be replaced so tailwheel mount sits flush on bulkhead. Have ordered new F23-03 bulkhead and F23-03 forward lower mount angle so tailwheel mount will sit flush with bulkhead.



Aft section of tail cone box



Aft section of tail cone box



Tail wheel mount clamped into place on vertical stabilizer



Updrilling tail wheel mount



Note gap between tail wheel mount and rear bulkhead on LH side of picture



F21-02 spacer



Pilot drilling F22-06 angle on #5 vertical channels



F22-06 angle fit and pilot drilled

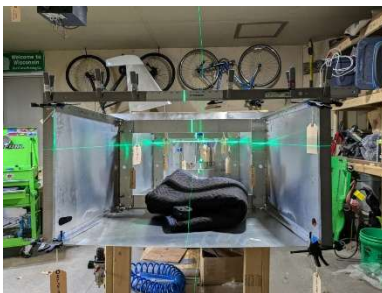


Tail wheel mount and lower vertical stabilizer channel fit to tail cone

Fuselage Box Assembly – Part 3

October 15, 2024 | Hours Worked: 1.98

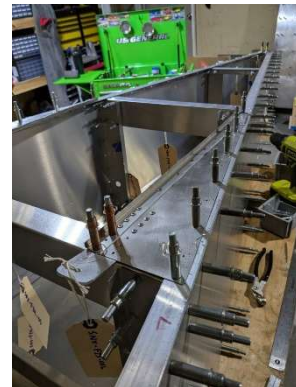
Fit F23-05L/R mount assemblies to aft fuselage section and pilot drilled/clecoed into place along upper longerons and upper cross tie #3. Levelled workbench and fuselage tail cone box for push rod support assembly installation. Measured out pushrod assembly hole centers from longerons and set center marking on laser level. Verified dimensions and pilot drilled into upper and lower cross ties. Repeated process for both forward and aft pushrod support assemblies.



Tail cone box leveled



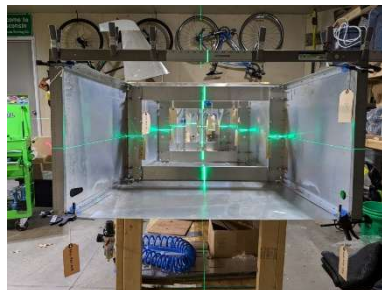
RH seat belt support installed



LH seatbelt support installed



Both aft angles fit and pilot drilled



Aft push rod support located via laser



Forward pushrod support located via laser



Forward push rod support
located and pilot drilled

Fuselage Box Assembly – Part 4

October 19, 2024 | Hours Worked: 2.55

Replaced F23-02 aft bulkhead and F23-03 forward lower mount angle with new parts and drilled $3/16"$ holes for tailwheel mount. Located aft fuselage tail channel on rear of tail cone and pilot drilled and clecoed into place. Secured F23-04 aft lower mount angle against longerons and rear channel and drilled holes for AN3 hardware through tailwheel mount. Lower holes ended up a little close to horizontal part of mount so took grinder to flatten the fillet a little bit. Located, pilot drilled, and clecoed aft shear web to longerons, rear angle, and aft bulkhead. Flipped tail cone assembly over and pilot drilled holes in upper longerons for T12-05 tail mount angle. Located, pilot drilled, and clecoed #1 lower cross tie while checking and verifying tail cone spacing and squareness. Finally, located aft fuselage floor on bottom side of assembly and began to pilot drill and cleco floor to lower longerons.



#1 lower cross tie located,
pilot drilled, and clecoed



Replaced F23-02 and -03 aft
bulkhead and lower angle and
updrilled tail wheel mount
holes to $3/16"$



Pilot drilled RH side of aft
fuselage channel



Aft fuselage channel pilot drilled and clecoed



Drilling AN3 holes into aft support angle



Aft tail wheel mount plate holes drilled through aft channel and lower support angle



Aft shear Web assembly aligned



Aft shear web assembly pilot drilled and clecoed



Holes drilled through aft lower mount angle and lower longerons



T12-05 angle holes drilled through upper longerons



Aft fuselage floor located and pilot drilling in progress

Fuselage Box Assembly – Part 5

October 22, 2024 | Hours Worked: 1.40

Completed pilot drilling and clecoing of aft fuselage floor to tail cone box. Attached crosstie box to cross tie splices and #1 vertical channels and clecoed bottom sheet into place. Fuselage still sits square with cross tie in place.



Cross Tie installed on aft tail cone



Underneath view of cross tie box



Aft fuselage floor pilot drilling complete

Fuselage Box Assembly – Part 6

October 29, 2024 | Hours Worked: 0.90

Flipped fuselage tail cone onto side and began up drilling fuselage floor to #30. Left forward lower corners of floor and #1 lower cross tie at pilot size to be completed when back-ordered fuselage conversion parts arrive. Up drilled AN525 holes in fuselage floor, longerons, and F23-03 forward lower mount angle per both plan sets. Temporarily removed aft fuselage floor for turtle deck installation



Tailcone assembly flipped onto side



Aft fuselage floor updrilled



AN525 hardware holes updrilled



View of AN525 holes from
inside tailcone

Fuselage Box Assembly – Part 7

November 15, 2024 | Hours Worked: 1.75

Up drilled mount assemblies and aft shear web. Reinstalled aft fuselage floor and up drilled AN525 holes for splice plates in lower formers. Also up drilled top AN525 holes through upper longerons, splice plates, and cross tie box. Inserted F22-07 between lower cross tie #1 and lower splice plates and pilot drilled assembly. Removed aft fuselage floor and LH side panel assembly to up drill aft bulkhead and associated angles. Removed aft bulkhead, aft shear assembly, tail channel, and tailwheel mount, then removed upper and lower cross ties. All aft fuselage parts disassembled and ready for riveting prep.



Aft shear web and tail angles
updrilled



Aft mounts updrilled



AN525 bolt holes drilled in
lower splice plates



F22-07 spacers inserted and pilot drilled



AN525 holes drilled through aft fuselage floor and lower splice plate



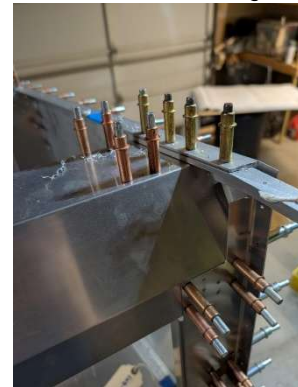
Holes drilled through spacers, lower splice plates, lower crossie, and aft fuselage floor



Holes drilled through spacers, lower splice plates, lower crossie, and aft fuselage floor



Updrilling upper splice plates and crossie box for AN3 hardware



Updrilling upper splice plates and crossie box for AN3 hardware



Updrilling aft bulkhead



LH aft side panel removed



Aft fuselage parts disassembled to prep for riveting

Fuselage Box Assembly – Part 8

November 16, 2024 | Hours Worked: 0.75

Began reassembling aft fuselage assembly by clecoing upper and lower cross ties to aft fuselage side panels.



Starting final assembly of tail
cone

Fuselage Box Assembly – Part 9

November 19, 2024 | Hours Worked: 4.67

Continued final assembly of tail cone. Started by clecoing lower cross ties and aft angle. Riveted aft angle and lower cross tie #5 in order to install aft Shear Web Assembly. Riveted shear web to aft bulkhead and lower aft angle. Un clecoed upper longerons to slip in shear Web Assembly and clecoed into place. Disassembled tail post and clecoed mount angles into place. Fit tail wheel mount into place and torqued bolts to spec. Upper bolts in tail mount not torqued pending vertical stabilizer installation. Riveted tail section minus left side of tail channel pending rudder hinge half. Finished riveting lower cross ties then riveted upper cross ties. Riveted rear elevator pushrod mount to #4 cross ties. Also riveted seatbelt mounts to aft tail cone.



Riveted lower aft angle to aft bulkhead



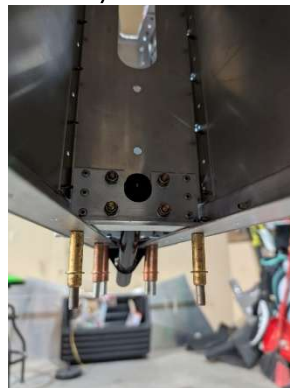
Riveted aft shear web assembly to aft bulkhead



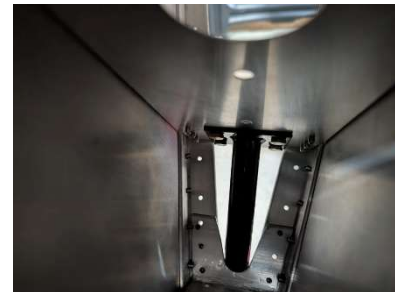
Aft angle and crosstie #5 riveted



Aft shear web assembly fit



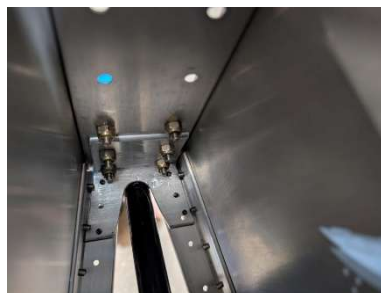
Tail wheel mount riveted to aft bulkhead



Tail wheel mount riveted to aft bulkhead



Tail channel fit and bolted into place



Tail wheel mount bolted to tail channel



RH tail section riveted



LH tail section riveted



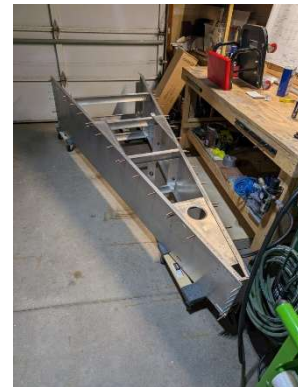
Upper tail angle riveted



Aft Shear web riveted



#4 cross ties riveted

#3 cross ties and seatbelt
mounts riveted

Aft tail cone progress to date

Fuselage Box Assembly – Part 10

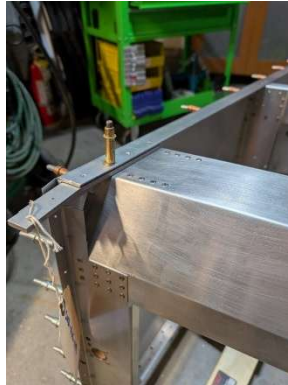
November 24, 2024 | Hours Worked: 0.67

Parts Used: AN3-5A, AN365-1032A, SNB-F21-01, SNB-F21-02, SNB-F24-10, SNB-F25-01L, SNB-F25-01R, SNB-F26-05, SNX-F22-02, SNX-F22-06, SNX-F23-01, SNX-F23-02, SNX-F23-03, SNX-F23-04, SNX-F23-05L, SNX-F23-05R, SNX-F23-11, SNX-F24-02, SNX-F24-03, SNX-F24-04, SNX-F24-05, SNX-F24-06, SNX-F24-07, SNX-F24-08, SNX-F24-09, SNX-T09-03

Riveted upper cross tie #2 to vertical channels and upper cross tie box to vertical channels #1. Fit cross tie splice plates to upper splice plates via AN3 bolt holes and riveted plates to cross tie box. F21 complete!



#2 upper cross tie riveted

Cross tie box riveted to #1
vertical channel and cross tie
box splice plateCross tie box riveted to #1
vertical channel and cross tie
box splice plate

F21 assembly complete

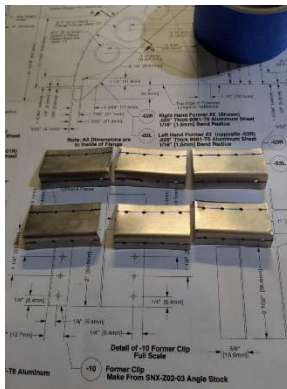
SNX-F20: Turtle Deck Details

Turtledeck Prep – Part 1

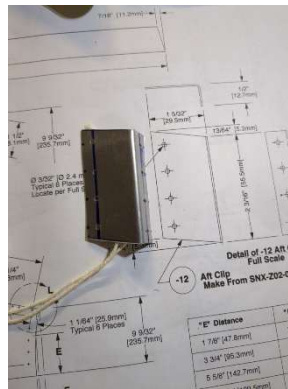
October 22, 2024 | Hours Worked: 2.50

Parts Used: SNX-F20-07, SNX-F20-10, SNX-F20-11, SNX-F20-12, SNX-Z02-03 (96), SNX-Z02-04 (96)

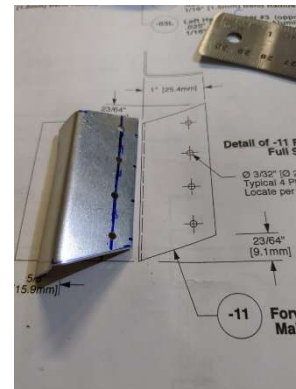
Creation of -07 skin spar channel and -10, -11, and -12 clips from channel stock per legacy plans. Channel stock cut with snips and pilot holes drilled per plans



-10 former clips



-12 aft clip



-11 forward clip



-07 skin splice channel

Turtledeck Prep – Part 2

October 29, 2024 | Hours Worked: 0.25

Laid out and marked location of F20-10 former clips on right side of F20-07 skin splice channel per legacy plans. Temporarily attached with clecoes pending final fit with formers and fuselage.



Former clips located and pilot drilled onto skin splice channel

SNX-F19: Turtle Deck Assembly

Turtledeck Assembly – Part 1

October 29, 2024 | Hours Worked: 1.96

Laid out F20-06 turtledeck skins on workbench and trimmed aft inside edges per plans. Aligned edge of RH turtledeck skin to edge of F20-07 skin splice channel and transferred holes onto top flange. Temporarily assembled -02 turtle deck skin assembly together with clecoes with LH skin on top of RH skin on top of skin splice channel. Marked the 1" skin overlap area on both sides of assembly. Undid top three rows of clecoes from aft tail cone sides and slid left side of turtledeck assembly between side skin and upper longerons. Carefully folded turtle deck skin into semi-circle and tucked the RH in between RH side skin and upper longeron. Once turtledeck skin was folded into place, adjusted height of LH side overlap and clecoed at former joints. Repeated the process with RH side. No dimples or ripples noted in turtledeck skin. Rechecked alignment of aft tail cone assembly.



Cut lines in F20-06 turtledeck skin 2



Locating and pilot drilling F20-07 splice channel to RH turtledeck skin



Skin overlap lines marked for turtledeck skin



Aft tail cone to date



Turtledeck skin inserted in between side skins and upper longerons



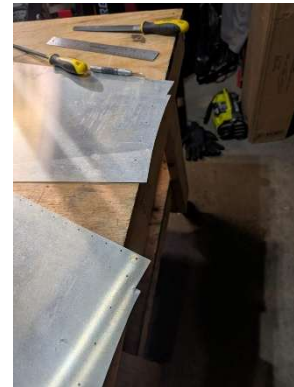
F19-02 turtledeck skin assembly pilot drilled



LH side of turtledeck skin
located and partially pilot
drilled/clecoed



RH side turtledeck skin located
and partially pilot
drilled/clecoed

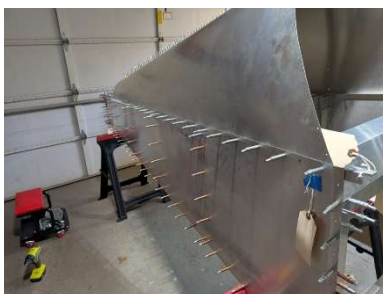


Notches cut in F20-06
turtledeck skins

Turtledeck Assembly – Part 2

November 1, 2024 | Hours Worked: 1.68

Began securing turtledeck skin by pilot drilling left side (every other hole). Repeated the same process on the right side. Will finish pilot drilling sides after formers are installed. Following B-Model plans. Located former #5 by marking centerline along top and front side of former and pilot drilling top center hole in former. Located, pilot drilled, and clecoed former to turtledeck skin alternating left and right and working top to bottom. Once former was secured to turtledeck skin, aligned former #5 to aft angle and pilot drilled into place. Checked alignment of turtledeck skin to fuselage and seemed in order. Marked location of aft clip on former, removed former from fuselage and pilot drilled aft clip into place. Reassembled former #5 to fuselage and turtledeck skin and used 90-degree drill to pilot drill aft clip to skin splice channel. Could only reach lower 3 holes so will need to pilot drill final hole during disassembly.



RH turtledeck skin partially
pilot drilled



LH turtledeck skin partially pilot
drilled



Former #5 pilot drilled and
located



Inside view of former #5



Aft clip located and pilot drilled to skin splice channel and former #5



Aft clip located and pilot drilled to skin splice channel and former #5

Turtledeck Assembly – Part 3

November 2, 2024 | Hours Worked: 5.85

Located L/R former #2 against turtledeck skin. Vertically spaced formers by placing wedge between former flange and upper longeron and pilot drilled and clecoed formers to skin. Started drilling from bottom working upwards and completed left side before moving onto right side. Right side former interfered with skin splice channel so trimmed around 1/8" from inside edge. Did not rivet formers to cross ties or skin splice channel pending fit check of assembly. Repeated the process for formers #3 then #4. Using B-model plans, marked vertical holes in left- and right-hand side panels for lower former #1. Assembled lower #1 formers to cross tie box, then to upper #1 formers and former straps. Trimmed lower flange of #1 formers to prevent interference with side skin and upper longeron. Located former assembly underneath turtledeck skin and installed splice plate between formers. Pilot drilled each #1 former starting from bottom and working to the top which created slight wrinkling in the turtledeck skin. Will replace #1 formers to achieve better fit. Up drilled holes through side skin, upper longerons, and turtledeck skin to #30.



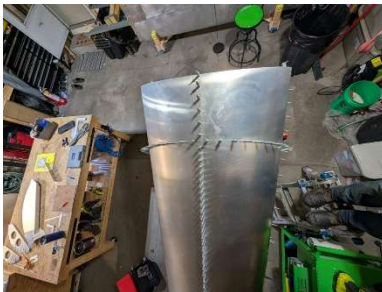
Wedge used to set vertical height of formers



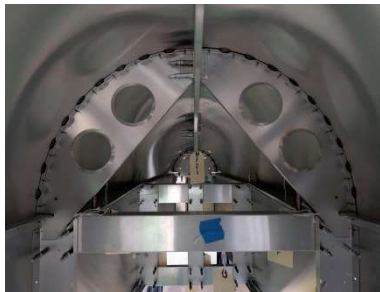
#2 formers clecoed and pilot drilled to turtledeck skin



Former #2 clecoed into place



Formers #2 clecoed into place



#3 formers clecoed and pilot drilled to turtledeck skin



Former #3 clecoed into place



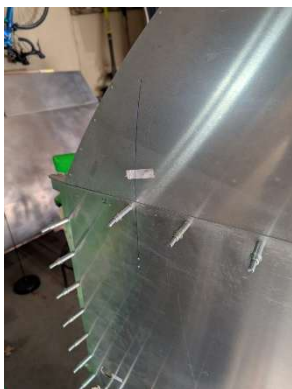
#4 formers clecoed and pilot drilled to turtledeck skin



Turtledeck skin after clecoing formers #2-5



Turtledeck skin after clecoing formers #2-5



Lower former #1 holes lined up



Former #1 assembly clecoed into place



Beginning updrilling

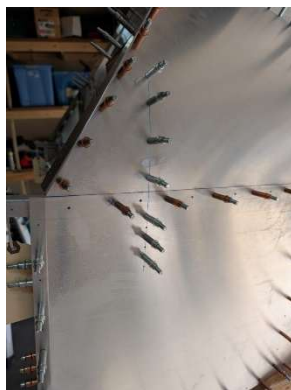
Turtledeck Assembly – Part 4

November 8, 2024 | Hours Worked: 5.13

Located new #1 turtledeck formers and confirmed much better fit than previous formers. Used #30 holes in turtledeck skin and transferred to formers. Located forward skin splice channel clip and pilot drilled to skin splice channel and former #1 splice plate. Began up drilling turtledeck assembly starting from aft side and working forward. First up drilled skin splice channel and skin splice joint. Working back to front, up drilled turtledeck skin holes, then skin splice clips, then formers/vertical channel joints, then lower cross ties. Could not access holes that attach former clips to skin splice channel so holes will need to be up drilled once turtledeck skin is removed. Elevator push tube mounts also up drilled. Did not up drill #1 former area.



New #1 formers located and final drilled



LH lower former holes in skin



RH lower former holes in skin



Forward skin splice channel clip located and pilot drilled



Forward skin splice channel clip located and pilot drilled



Placement of aft fuselage to enable underneath access



Aft fuselage station #5 updrilled



Aft fuselage station #4 updrilled



Aft fuselage station #3 updrilled



Aft fuselage station #2 updrilled



Turtledeck skin updrilled



Turtledeck skin updrilled

Turtledeck Assembly – Part 5

November 15, 2024 | Hours Worked: 3.84

Finished up drilling #1 former area including upper and lower formers, cross tie box, side skins, and upper splice plates. After all formers were up drilled, removed both turtledeck skins for better access to skin splice channel. Up drilled skin splice channel plates then removed formers and splice channel.



Updrilling RH former strap



Updrilling RH former strap



Updrilling LH former strap



Former #1 updrilled including splice plate



LH Aft skin updrilling



RH Aft skin updrilling



LH lower Former updrilled



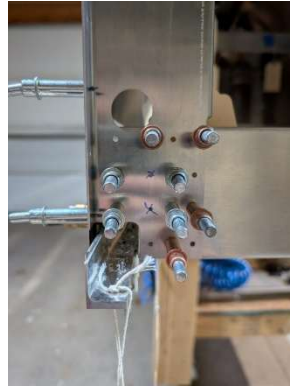
RH lower Former updrilled



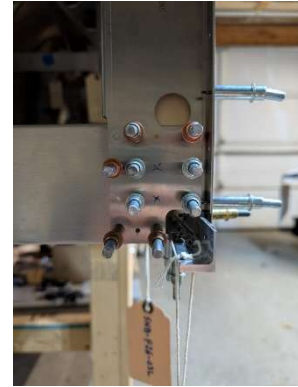
RH of crosstie box updrilled



LH of crosstie box updrilled



Lower crosstie #1 updrilled



Lower crosstie #1 updrilled

Turtledeck skin removed to
updrilled skin splice channel

Turtledeck Assembly – Part 6

December 3, 2024 | Hours Worked: 3.45

Parts Used: SNB-F19-02, SNX-F20-06, SNX-F20-07, SNX-F20-10, SNX-F20-11, SNX-F20-12

Deburred and prepped splice channel assembly and riveted skin splice channel and all attach angles. Deburred, scotchbried, and acetoned LH and RH turtledeck skins and riveted to splice channel assembly to create -02 turtledeck skin assembly. Clecoed RH side of -02 assembly to aft fuselage tail cone then folded turtledeck skin over to cleco into LH side. Prepped -05 and -04L/R formers and clecoed into place.



-02 turtle deck skin assembly
riveted



-02 turtle deck skin assembly
clecoed onto aft fuselage



Formers #5 and #4L/R
clecoed into place

Turtledeck Assembly – Part 7

December 5, 2024 | Hours Worked: 3.25

Prepped and clecoed formers #4 through #2 to tail cone box and turtle deck skin. Prepped and clecoed #1 lower formers to cross tie box, side skins, and turtledeck skin. Prepped and clecoed upper #1 formers to turtledeck skin along with upper splice plate. Once fit and squareness was verified with tail cone assembly, final riveted formers #5 through #2 to tail cone box and turtledeck splice channel.



Formers #4 through #2
clecoed into place



F19 progress to date



Formers #4 through #2
clecoed into place



Upper/lower #1 formers fit
and clecoed



#5 former riveted to tail cone
box



#4 formers riveted to tail cone
box and skin splice channel



#3 formers riveted to tail cone
box and skin splice channel



#2 formers riveted to tail cone
box and skin splice channel

Turtledeck Assembly – Part 8

December 6, 2024 | Hours Worked: 5.30

Parts Used: AN3-10A, AN3-6A, AN365-1032A, AN960-10, SNB-F19-01, SNB-F19-02, SNB-F20-01L, SNB-F20-01R, SNB-F20-08, SNB-F20-09L, SNB-F20-09R, SNB-F20-13L, SNB-F20-13R, SNB-F26-07L, SNB-F26-07R, SNX-F20-02L, SNX-F20-02R, SNX-F20-03L, SNX-F20-03R, SNX-F20-04L, SNX-F20-04R, SNX-F20-05

Riveted formers #5 through #2 to turtledeck skin starting at upper longerons and moving towards the skin splice channel. Riveted lower #1 formers to back of cross tie box then riveted upper #1 formers to turtledeck skin assembly. Riveted F20-08 splice plate to upper skin splice channel and #1 formers. Wrapped up #1 former section by riveting lower formers to upper formers and former straps. Up drilled F27-07L/R for AN3 hardware then rough bent forward end to match former angle. Installed AN3 hardware through former clips, upper longerons, and cross tie angles and torqued to spec. Slightly adjusted bends of tabs then pilot drilled and clecoed clips to upper and lower formers. Up drilled and riveted clips to formers. F19 complete!



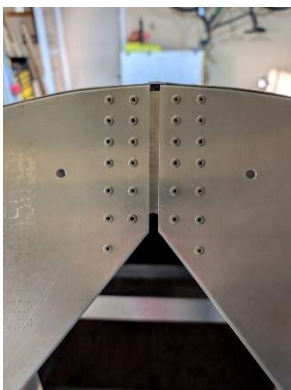
RH lower #1 former riveted to
cross-tie box



LH lower #1 former riveted to
cross-tie box



Formers #5 through #1 riveted
to turtledeck skin assembly



Upper splice plate riveted



Lower #1 formers riveted to
upper formers



RH former strap riveted



LH former strap riveted



RH former bolts inside cross-tie
box



RH former clip pilot drilled



LH former clip pilot drilled



LH former strap riveted



RH former strap riveted



F19 Complete!

SNB-F18: Fuselage Tail Cone Assembly

Tail Cone Box Wrap-up

December 10, 2024 | Hours Worked: 3.68

Parts Used: AN365-1032A, AN525-10R12, AN960-10, SNB-F18-01, SNB-F18-04L, SNB-F18-04R, SNB-F19-01, SNB-F21-01, SNB-F24-11

Riveted turtledeck assembly to fuselage tail cone box per plans revision E. Up drilled holes through side skins and upper splice plates to 3/16" and installed AN525 hardware. Torqued to spec. Clecoed crossie closeout plate into place and riveted into place. Clecoed flap motor actuator mounts into place and verified alignment with flap drive tube by temporarily installing flap motor. Alignment was good so riveted flap motor mounts to crossie assembly per plans revision E. Clecoed aft fuselage floor into place and verified squareness of fuselage tail cone assembly. Clecoed F27-07 spacers into place. F18 complete!



Left side of assembly riveted



Right side of assembly riveted



Bolts in upper splice plate installed



RH splice plate bolts



RH splice plate bolts



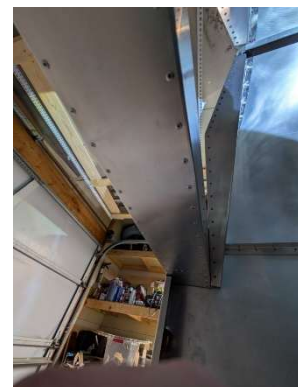
Bolts installed into upper splice plate



LH splice plate bolts



LH splice plate bolts



Cross-tie closeout riveted into place



Crosstie closeout riveted into place



Flap motor mounts riveted per Revision E



Aft fuselage floor clecoed into place. F18 complete!

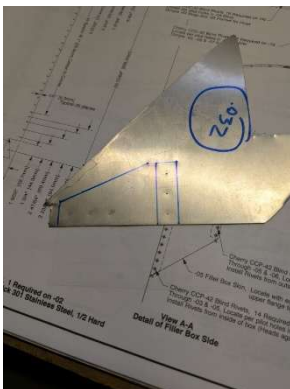
SNB-F17: Firewall & Stiffeners

Firewall Prep – Part 1

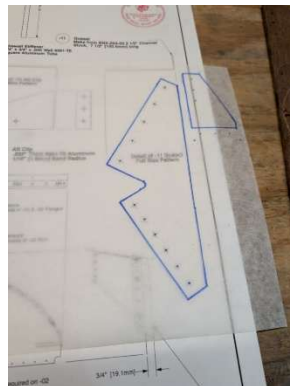
December 13, 2024 | Hours Worked: 2.27

Parts Used: 0.032 Sheet, 6061-SQ-pt75xpt75xpt049, SNB-F17-03, SNB-F17-03L, SNB-F17-03R, SNB-F17-08, SNB-F17-09, SNX-F17-10, SNX-F17-11, SNX-F17-12, SNX-Z04-03 (96)

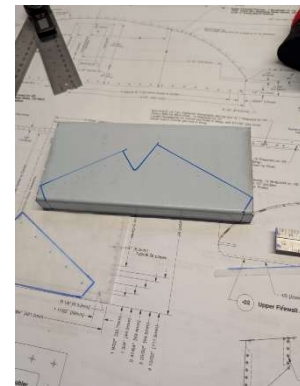
Creation of miscellaneous firewall components per plans. -10, -11, and -12 parts created via legacy plans set. Bent edges of -01 up per plans and set aside. -03 assembly created from firewall former halves.



Stiffener layout on .032 sheet stock



Tracing template for -11 gusset



Layout of -11 gusset



-11 gusset

Bending up ends of -01 lower
firewallAssembly of -03 upper firewall
former assembly

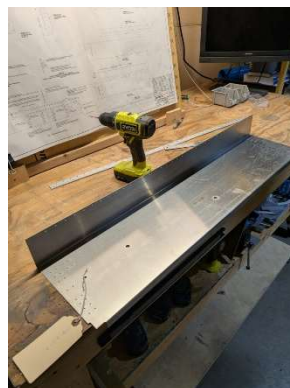
F17 parts complete

SNB-F16: Lower Skin & Spar Tunnel

Forward Fuselage Part Prep – Part 1

December 14, 2024 | Hours Worked: 1.16

Bent trailing edge of forward fuselage floor up 5 degrees. Pilot drilled holes in top edge of -02 forward tunnel zee. Began clecoing -03 aft tunnel web assembly together.

Forward fuselage floor aft
edge bent 5 degreesHoles drilled in top of forward
spar tunnel zee

-03 assembly clecoed

Forward Fuselage Part Prep – Part 2

December 17, 2024 | Hours Worked: 4.85

Parts Used: AN365-1032A, AN960-10, MS24694-S51, SNB-F16-03, SNB-F16-04, SNB-F16-05, SNB-F16-07, SNB-F16-12, SNB-F16-14L, SNB-F16-14R, SNB-F16-15L, SNB-F16-15R, SNX-F16-08

Created -08 clips per legacy plans out of Z01-03 stock. Up drilled -03 assembly then dimpled aft -05 tunnel angle. Countersunk -04 support channel, -12 spacer plates, and -14L/R and -15L/R angles. Refitted components together, installed MS24694 bolts for standard gear configuration, and riveted with CCC rivets. F16 complete!



-03 assembly updrilled



Support angle countersunk



-08 clips created from legacy plans



Aft tunnel angle dimpled



Screws installed into -03 assembly



-03 assembly complete



-03 assembly complete

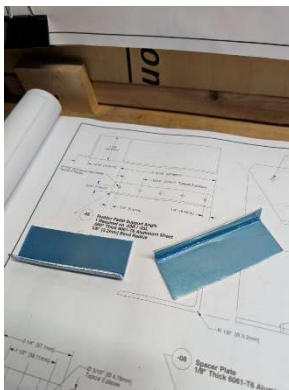
SNB-F15: Forward Side Panel Details

Forward Fuselage Part Prep – Part 3

December 19, 2024 | Hours Worked: 2.68

Parts Used: 0.063 Sheet, 2.5x2.5x0.125x96 Angle, SNB-F15-03L, SNB-F15-03R, SNB-F15-12L, SNB-F15-12R, SNX-F15-04L, SNX-F15-04R, SNX-F15-05

Created -05 support angles from .063 sheet and legacy plans. Located them onto -04L/R rudder pedal mount angles per plans and riveted with CCC rivets to create -03L/R assemblies. Cut 2.5x2.5x0.125 angle to create -12L/R angle clips and pilot drilled to 1/8". Edged rounded on angle clips. F15 complete!



-05 support angles cut from 0.063 sheet and bent



Locating -05 support angle on rudder Pedal mount



Countersinking -04 mount angles



-03 assemblies complete



-03 assemblies complete



-12 angle clips complete



F15 parts

SNB-F14: Forward Side Panel Gussets

Firewall Prep – Part 2

December 20, 2024 | Hours Worked: 5.96

Parts Used: 1x1x0.125x96 Angle, 2x2x0.125x96 Angle, SNX-F14-02L, SNX-F14-02R, SNX-F14-04L, SNX-F14-04R, SNX-F14-07L, SNX-F14-07R, SNX-F14-11L, SNX-F14-11R, SNX-F14-12L, SNX-F14-12R, SNX-Z02-03 (96)

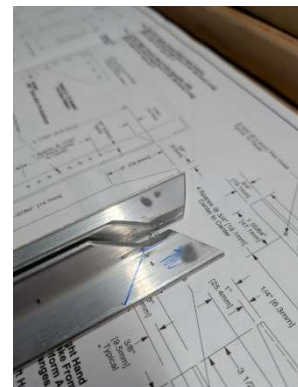
Creation of -02L/R, -04L/R, -07L/R, -11L/R, and -12L/R per legacy plans out of aluminum angle stock.



Cutting of -07L/R



Completed -07 angles



Cutting ends of -02 angles



-02 angles complete



-04 angles cut from Z02-03 stock



-11 angles complete



Using can to mark radii on -12 angles



-12 angles complete



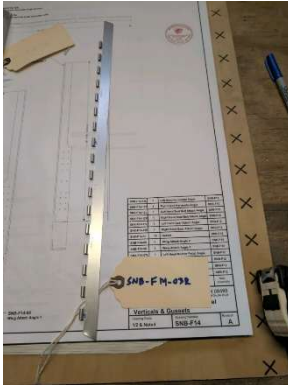
F14 angles created to date

Firewall Prep – Part 3

December 22, 2024 | Hours Worked: 0.65

Parts Used: SNB-F14-01R, SNB-F14-03R, SNX-F14-02R, SNX-F14-04R

Created -03R cowling attach hinge from MS20257P4 piano hinge. Located hinge and firewall attach angle per Model B plans and pilot drilled -01R assembly. Verified alignment with spare hinge pin.



-03R created from P4 piano hinge stock



-01R forward angle assembly
pilot drilled and complete

Firewall Prep – Part 4

December 24, 2024 | Hours Worked: 0.47

Parts Used: SNB-F14-01L, SNB-F14-03L, SNX-F14-02L, SNX-F14-04L

Created -03L cowling attach hinge from MS20257P4 piano hinge. Located hinge and firewall attach angle per Model B plans and pilot drilled -01L assembly. Verified alignment with spare hinge pin.



-03L cut from piano hinge stock



-01L assembly complete

SNB-F13: Forward Side Panel Longerons

Forward Fuselage Longerons

December 21, 2024 | Hours Worked: 0.72

Parts Used: 1x1x0.125x96 Angle, SNB-F13-06L, SNB-F13-06R

Creation of -06L/R lower longerons per B Model plans from 1x1x0.125 6061 angle.



Lower longerons complete

SNB-F12: Forward Side Panel Assembly

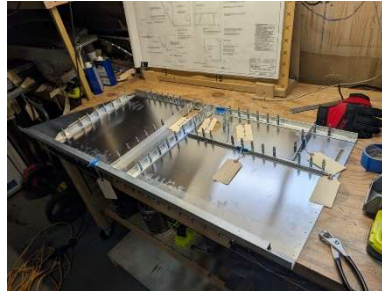
Fuselage Side Panels – Part 1

December 22, 2024 | Hours Worked: 2.90

Located and pilot drilled lower longerons on LH/RH fuselage side assemblies. Located and clecoed upper longerons and miscellaneous side angles to fuselage sides. Determined -11L/R Gear Attach Angles had pilot holes drilled in wrong spot so remade them from 1x1x0.125x96 6061 angle.



RH side panel clecoed with longerons and misc. angles



LH side panel clecoed with longerons and misc. angles

Fuselage Side Panels – Part 2

December 22, 2024 | Hours Worked: 1.87

Located F14-01R forward angle and pilot drilled to RH side panel. Located and pilot drilled lower and upper RH motor mounts. Marked centerlines for gussets and located and pilot drilled all RH gussets. RH fuselage side panel all pilot drilled.



F14-01R assembly located and pilot drilled



Lower motor mount located and pilot drilled



Centerlines marked for gussets



F14-10 gussets located and pilot drilled



Gusset centerlines located



RH Rudder Pedal Mount Assembly located and pilot drilled



F14-10 gusset located and pilot drilled



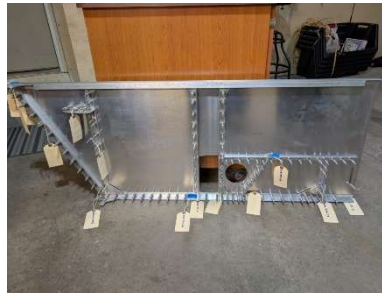
F14-10 gusset located and pilot drilled



Misc. Gussets located and pilot drilled



RH fuselage side panel pilot drilled



RH fuselage side panel pilot drilled

Fuselage Side Panels – Part 3

December 24, 2024 | Hours Worked: 2.38

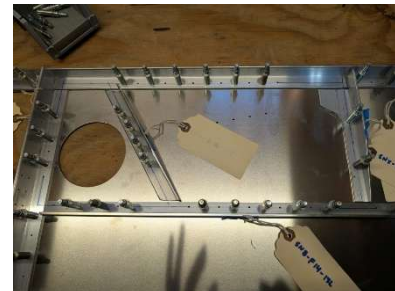
Located and pilot drilled F14-01L assembly to LH side panel. Located and pilot drilled LH upper and lower motor mounts. Marked centerlines for gussets and located and pilot drilled all LH gussets. Located and pilot drilled F15-03L rudder pedal mount assembly. Located and pilot drilled F14-12L seat belt angle to LH fuselage side. Went back to RH fuselage side panel and installed SNB-F15-07 gusset and F14-12R seat belt angle. Both LH and RH fuselage side panel all pilot drilled.



LH upper motor mount located and pilot drilled



LH lower motor mount located and pilot drilled



Gusset centerlines marked



LH upper gear gusset located and pilot drilled



LH fuselage side panel pilot drilled



F14-01L assembly located and pilot drilled



F15-10 gussets pilot drilled



LH rudder Pedal mount assembly pilot drilled



LH lower gear gusset located and pilot drilled



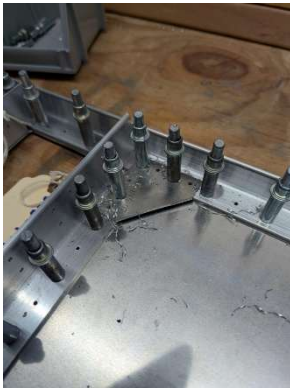
Seatbelt gusset located and pilot drilled



F14-12L located and pilot drilled



RH seatbelt angle mounted



F15-07 gusset pilot drilled on
RH side



RH fuselage side panel pilot
drilled

Fuselage Side Panels – Part 4

December 25, 2024 | Hours Worked: 1.48

Up drilled RH fuselage side panel including bolt holes per plans.



RH fuselage side panel
updrilled



RH fuselage side panel
updrilled

Fuselage Side Panels – Part 5

December 26, 2024 | Hours Worked: 3.97

Parts Used: AN365-1032A, AN525-10R11, AN960-10, SNB-F12-01R, SNB-F13-01, SNB-F13-02R, SNB-F13-06R, SNB-F14-01R, SNB-F14-08, SNB-F14-09, SNB-F14-13R, SNB-F15-01R, SNB-F15-02R, SNB-F15-03R, SNB-F15-07, SNB-F15-12R, SNX-F14-07R, SNX-F14-10, SNX-F14-11R, SNX-F14-12R, SNX-F15-09, SNX-F15-10, SNX-F15-11

Disassembled RH forward side panel and deburred/cleaned all parts. Clecoed assembly back together and installed rivets per plans. Installed AN525 hardware as called out in plans and torqued to spec. F12-01R complete.



RH forward side panel
disassembled



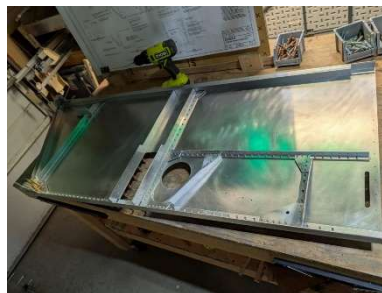
RH side panel pieces deburred
and cleaned



RH forward side panel
reassembled



RH forward side panel rivets
installed



RH forward side panel rivets
installed



Seatbelt angle bolts installed



RH rudder pedal mount
assembly bolts installed



RH upper motor mount
hardware installed



RH forward side panel
complete

Fuselage Side Panels – Part 6

December 27, 2024 | Hours Worked: 5.00

Parts Used: AN365-1032A, AN525-10R11, AN960-10, SNB-F12-01L, SNB-F13-01, SNB-F13-02L, SNB-F13-06L, SNB-F14-01L, SNB-F14-08, SNB-F14-09, SNB-F14-13L, SNB-F15-01L, SNB-F15-02L, SNB-F15-03L, SNB-F15-07, SNB-F15-12L, SNX-F14-07L, SNX-F14-10, SNX-F14-11L, SNX-F14-12L, SNX-F15-09, SNX-F15-10, SNX-F15-11

Up drilled LH forward side panel then disassembled and deburred/cleaned all parts. Clecoed assembly back together and installed rivets per plans. Installed AN525 hardware as called out in plans and torqued to spec. F12-01L and F12 complete!



Extra holes drilled in wing
angle per plans



LH forward side panel
disassembled



Components deburred and
cleaned



LH forward side panel clecoed together



Bolts installed and torqued



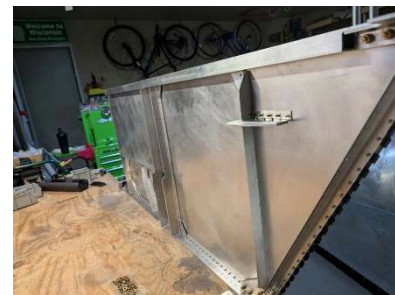
Updrilling bolt holes



LH forward side panel updrilled



LH forward side panel riveted



LH forward side panel complete!

SNB-F11: Fuselage Box Assembly

Forward Fuselage Assembly – Part 1

December 28, 2024 | Hours Worked: 2.10

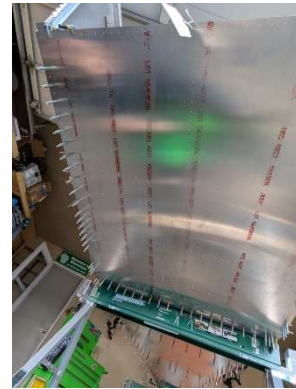
Clecoed left and right forward side panels to aft side skins. Removed clecoed from #1 lower cross tie and aft fuselage floor and aligned lower forward skin to existing holes. Clecoed forward and aft fuselage floors to cross tie then pilot drilled lower longerons from aft to front, alternating each side. Trimmed upper forward cross tie by 1/4" and clecoed into place.



LH forward side panel clecoed into place



RH forward side panel clecoed into place



Lower forward skin pilot drilled and clecoed to lower longerons



Trim line of upper forward cross tie

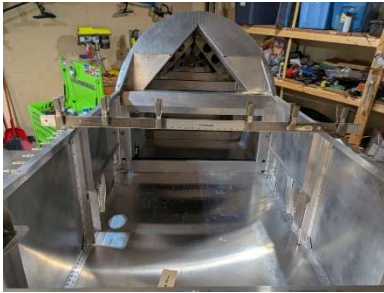


Upper forward cross tie clecoed

Forward Fuselage Assembly – Part 2

December 29, 2024 | Hours Worked: 2.32

Pilot drilled bolt holes through upper and lower motor mounts, longerons, and fuselage floor. Located lower forward crosstie and pilot drilled with floor skin holes. Created jig from angle rulers to set side panel width at 40". Fit lower firewall to pilot holes in motor mounts and pilot drilled to forward floor skin, side skins, and upper crosstie. Needed to trim top corners of lower firewall to properly clearance upper motor mounts.



Side panel width set at 40"



Interference between lower firewall and upper motor mounts.



Lower firewall trim line



Lower firewall located and pilot drilled



Lower firewall located and pilot drilled

Forward Fuselage Assembly – Part 3

December 30, 2024 | Hours Worked: 4.79

Pilot drilled and clecoed upper/lower LH/RH splice plates to forward longerons. Removed forward wing angles and clecoed forward tunnel Z and spacer plates then refitted to forward fuselage. Determined there was no way to get aft tunnel web assembly into place so removed forward tunnel Z and drilled out rivets on aft tunnel web assembly in spacer plates. Fitted aft tunnel web, spacer plates, and wing mount angles and clecoed into place. Refit forward tunnel Z and wing angles and clecoed all to forward fuselage. Located, pilot drilled, and clecoed firewall stiffener and floor stiffener. Then located, pilot drilled, and clecoed gussets and angles. Finally, clecoed upper firewall into place, finishing test fitting of F11 components. Began up drilling starting with RH side panel. Up drilled bolt holes in splice plates and countersunk upper longeron for flush hardware.



RH splice plates pilot drilled



LH splice plates pilot drilled

Aft tunnel web located and
clecoedForward tunnel z located and
pilot drilled

Firewall stiffener pilot drilled

Aft tunnel web pilot drilled and
clecoed to floor

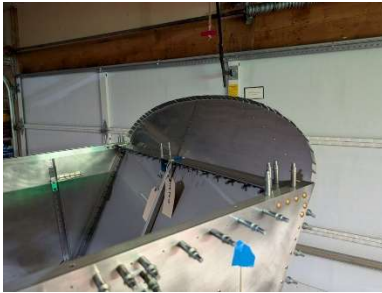
Floor stiffener pilot drilled



Gusset pilot drilled



Firewall angle pilot drilled



Upper firewall clecoed



F11 progress to date

RH upper longeron
countersunk for flush hardware

RH side panels updrilled

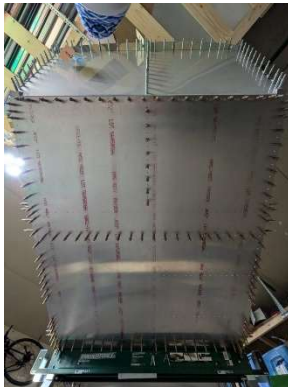


Aft floor angle pilot drilled

Forward Fuselage Assembly – Part 4

January 1, 2025 | Hours Worked: 4.92

Up drilled LH fuselage side skins and splice plates. Countersunk top longeron for flush hardware. Up drilled forward fuselage floor including bolt holes. Aligned P13-08 lower cowl hinge half then drilled and clecoed to lower firewall. Up drilled lower firewall. Up drilled upper cross tie including countersinking holes for flush screws. Up drilled fuselage and floor stiffeners including all gussets. Up drilled upper firewall. Checked alignment and squareness of fuselage. Using angle drill, up drilled forward and aft spar tunnel webs from inside spar tunnel. Disassembled forward fuselage to deburr and prep parts.



Forward fuselage floor
updrilled



Firewall angle updrilled



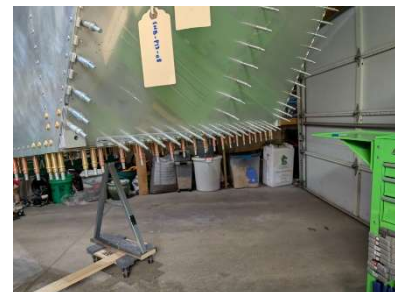
Gusset updrilled



LH upper longeron holes
countersunk



LH fuselage side skin updrilled



Lower cowl hinge half located
and pilot drilled



Lower firewall updrilled



Upper forward cross tie
updrilled and countersunk



Upper forward cross tie
updrilled and countersunk



Floor angle updrilled



Upper firewall updrilled



LH aft tunnel web updrilled



LH forward tunnel Zee updrilled



RH aft tunnel web updrilled



RH forward tunnel Zee updrilled

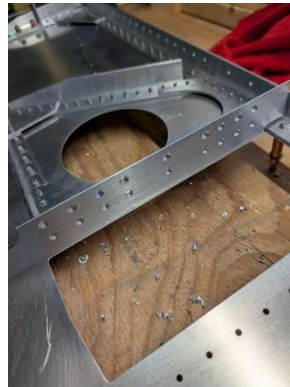
Forward Fuselage Assembly – Part 5

January 2, 2025 | Hours Worked: 6.69

Deburred LH and RH fuselage side panels and countersunk wing mount angle holes then re-clecoed into place onto fuselage. Deburred, dimpled, and countersunk aft spar tunnel web and clecoed back onto side panels as separate pieces. Riveted aft spar tunnel using flush rivets. Deburred and clecoed upper and lower forward cross ties into place. Deburred firewall components and clecoed into place. Disassembled forward Zee tunnel and dimpled/countersunk all holes per plans. Riveted spacer plates into place per plans but left wing attach angles clecoed. Fit forward tunnel zee onto fuselage, checked alignment, and clecoed to side panels. Riveted side panels onto fuselage and installed bolts and screws through splice plates. Installed bolts through upper cross tie and upper motor mounts. Riveted lower firewall onto fuselage and riveted firewall stiffener and top angle into place.



LH rear wing attach angle
countersunk



RH rear wing attach angle
countersunk



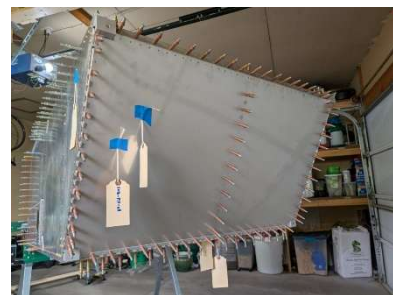
Forward side panels clecoed
into place



Aft spar tunnel web dimpled



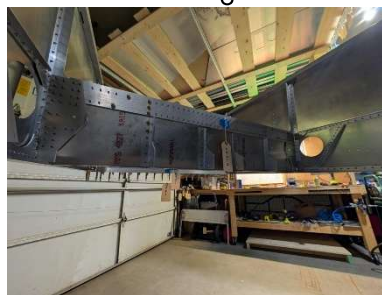
Aft spar tunnel web clecoed to
fuselage



Lower firewall clecoed into
place



Aft spar tunnel web riveted



Aft spar tunnel riveted



Forward tunnel Zee riveted



Forward tunnel zee clecoed to
side panels



LH side panel riveted and
hardware installed



RH side panel riveted and
hardware installed



Hardware installed in RH upper motor mount



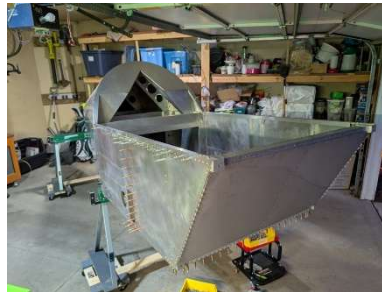
Hardware installed in LH upper motor mount



Lower firewall riveted



Firewall Stiffener and upper angle riveted



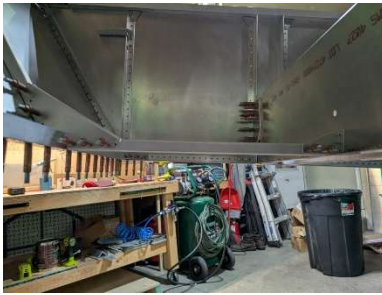
F11 progress to date

Forward Fuselage Assembly – Part 6

January 4, 2025 | Hours Worked: 1.42

Parts Used: AN3-5A, AN3-6A, AN365-1032A, AN525-10R11, AN960-10, MS24694-S53, MS24694-S54, SNB-F11-01, SNB-F12-01L, SNB-F12-01R, SNB-F16-02, SNB-F16-03, SNB-F16-07, SNB-F16-09, SNB-F16-10, SNB-F16-13, SNB-F17-01, SNB-F17-03, SNB-F17-08, SNB-F17-09, SNB-F18-01, SNB-P13-08, SNX-F17-10, SNX-F17-11, SNX-F17-12, SNX-F22-07

Clecoed lower floor/firewall stiffener and floor stiffener into place. Deburred upper firewall and riveted to fuselage box. Deburred forward fuselage floor and clecoed into place. Will wait until very end to rivet floor into place. F11 complete!



Floor stiffener and gusset
clecoed into place



Upper firewall clecoed into place



Forward fuselage floor
clecoed into place



F11 complete!



Upper firewall riveted



F11 complete!

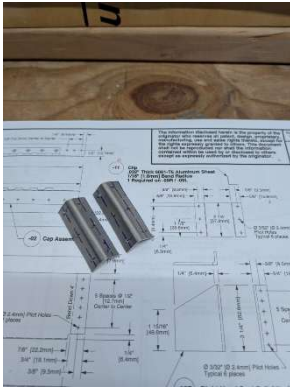
SNB-F10: Aft Lower Cabin Details

Forward Fuselage Part Prep – Part 1

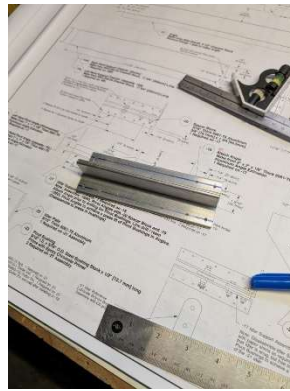
January 7, 2025 | Hours Worked: 4.65

Parts Used: 0.032 Sheet, 1.5x0.190x10.25 Bar, 1x1x0.125x96 Angle, 2x2x0.125x96 Angle, SNB-F10-15, SNB-F10-20, SNB-F10-25, SNX-F10-11, SNX-F10-18L, SNX-F10-18R, SNX-F10-19

Creation of miscellaneous F10 parts from legacy plans from angle stock, bar stock, and aluminum sheets.



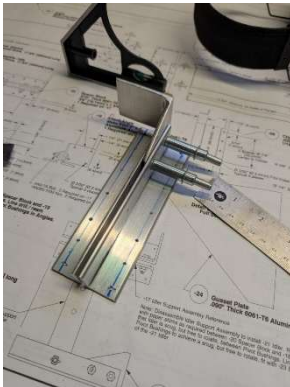
Creation of -11 clips



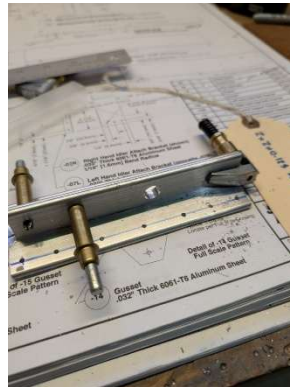
Cutting stock for -18 pivot angles



Transferring holes between -18 pivot angles to ensure alignment



-19 attach angle located and pilot drilled



Updrilling -18 angles



Miscellaneous F10 parts created

Forward Fuselage Part Prep – Part 2

January 11, 2025 | Hours Worked: 0.57

Parts Used: AN3-14, AN3-7A, AN310-3, AN365-1032A, AN960-10, MS24665-132, SNB-F10-16, SNB-F10-20, SNB-F10-22, SNX-F10-18L, SNX-F10-18R, SNX-F10-19, SNX-W21-12, Symmco SF-1014-6

Assembled F10-16 idler assembly (skipping -21 and -17 sub-assemblies. Used vice to press in Symmco bushings to pivot angles. Lubricated bushings and pivot bearings with LPS-2 prior to assembly.



Using vice to press in symmco bushings



F10-16 complete



F10-16 complete

SNB-F09: Aft Lower Cabin Details

Aft Forward Fuselage Assembly – Part 1

January 9, 2025 | Hours Worked: 3.77

Parts Used: Aft Lower Cabin Tags: SNB-F09-02, SNB-F10-01, SNB-F10-05L, SNB-F10-05R, SNB-F10-08, SNB-F10-18, SNB-F10-19, SNB-F10-25, SNX-F10-25

Following general construction order on plans, assembled -02 seat belt assembly and riveted. First assembly to fuselage and temporarily clecoed F10-02 angle to assembly to ensure straightness. Pilot drilled and clecoed assembly to side panels and floor. Determined SNB-F10-25 gusset spacers were the incorrect thickness so modified SNX spacers to work. Located spacers and gussets, pilot drilled, and clecoed. Riveted F10-19 seat pan channel clips to forward seat pan channel. Located and pilot drilled aft seat pan ribs to seat pan forward channel then clecoed ribs, forward channel, and seat pan channels together. Located (temporary) assembly to fuselage and clecoed to seat belt attach angle, aft spar web, and fuselage floor.



-02 assembly riveted



-02 assembly located and
pilot drilled to RH forward
fuselage



-02 assembly located and
pilot drilled to LH forward
fuselage



LH gusset and spacer located
and pilot drilled



-02 assembly located and
pilot drilled



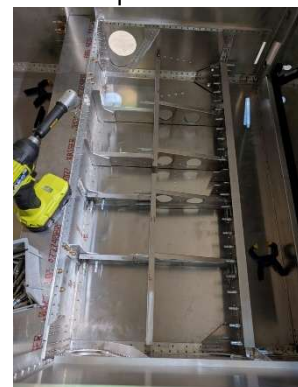
RH gusset and spacer located
and pilot drilled



F10-19 seat pan channel clips
riveted



Seat pan ribs and channels
located and clecoed



Seat pan ribs/channels
located and clecoed to
fuselage



Fuselage floor clecoes



F09 progress to date

Aft Forward Fuselage Assembly – Part 2

January 11, 2025 | Hours Worked: 0.82

Pilot drilled and clecoed seat ribs and channels to fuselage floor. Clecoed together seat belt clips, attach channels, and seatbelt center channel and attached to inside seat pan ribs.

Seat ribs and channels pilot
drilled to floorSeat belt channels clecoed to
fuselage

Aft Forward Fuselage Assembly – Part 3

January 16, 2025 | Hours Worked: 5.37

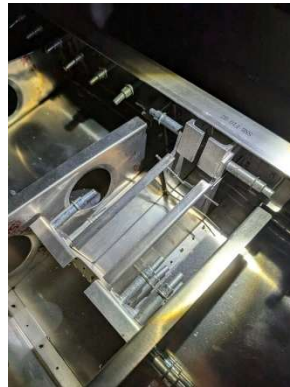
Parts Used: AN3-5A, AN365-1032A, AN960-10, SNB-F09-02, SNB-F10-02, SNB-F10-06, SNB-F10-07, SNB-F10-12, SNB-F10-13L, SNB-F10-13R, SNB-F10-14L, SNB-F10-14R, SNB-F10-16, SNX-F10-11

Used rivet stems and clamps to hold center seatbelt channels into place while locating and pilot drilling seat ribs and channels to forward floor. Clecoed - 14L/R angles into place. Located idler assembly and pilot drilled to lower cross member and seat belt attach assembly. Updrilled all holes in fuselage floor

then removed floor for better access. Began updrilling seat ribs and channels. Removed inner seat pan ribs to have better access to center seat belt channel components. After all parts were drilled, removed F09 assemblies from fuselage for deburring. Riveted seat belt top angle to assembly then located and drilled center seatbelt attach holes in seat belt attach channels. Riveted center seatbelt attach channel components to seat belt attach assembly. Riveted idler attach clips to idler then idler assembly to the seat belt attach assembly. Located assembly including center seat belt channels and idler and riveted to fuselage.



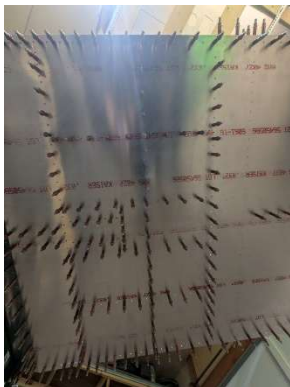
Used rivet stems to locate inner seat belt channels



Seat belt angles clecoed



Idler Assembly squared and located



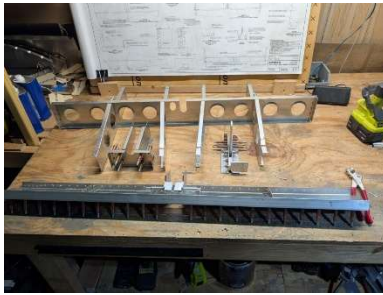
Fuselage floor updrilled



Floor removed and components updrilled



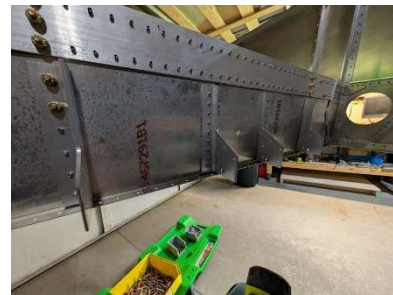
Removing ribs for better access to seat belt channels



Components removed



Fuselage parts deburred



Forward seat channel mounts
deburred



Seat belt mount holes
transferred



Upper angle riveted to seat
belt mount assembly



Brackets riveted to idler
assembly



Seat belt mounts bolted



Idler assembly riveted to seat
belt mount assembly



Center seat belt channel
components riveted



LH side riveted



RH side riveted

Seat belt mount assembly
riveted to fuselage

Aft Forward Fuselage Assembly – Part 4

January 17, 2025 | Hours Worked: 2.37

Parts Used: SNB-F10-11L, SNB-F10-11R, SNB-F10-23L, SNB-F10-23R, SNB-F10-24

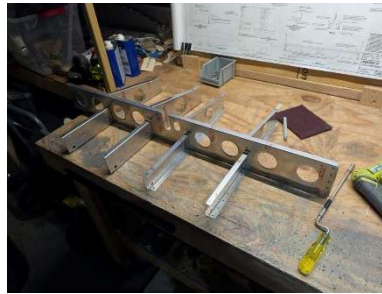
Disassembled seat pans/channels to deburr and clean. Riveted seat pans and channels together then clecoed into fuselage. Riveted rear of assembly to aft seat belt channel and left clecoes in for center seatbelt channels and aft tunnel web spar per plans. Deburred new holes in forward fuselage floor then clecoed back onto fuselage. F09 complete!

Seat pan riveted to aft seat belt
attach assemblyForward fuselage floor
deburred and clecoed

F09 complete!



Seat pan ribs/channels
deburred



Seat pan ribs/channels riveted
together

SNB-F08: Seat Installation

Seat Installation – Part 1

January 28, 2025 | Hours Worked: 6.60

Parts Used: SNB-F08-02, SNB-F08-03, SNB-F08-04, SNB-F08-05, SNB-F08-06, SNB-F08-07, SNB-F08-12, SNB-F08-15, SNB-F08-16, SNB-F08-17, SNB-F08-18, SNB-F08-19

Created miscellaneous hinges and hinge pins from P3 piano hinge stock. Assembled and riveted -02 and -04 seat pan assemblies. Located and pilot drilled hinge halves to forward seat pan channel.



Seat pan hinges cut and pilot
drilled



Hinges located and pilot
drilled to forward seat pan
channel



Seat back assembly complete



Forward seat pan assembly
complete

Seat Installation – Part 2

January 30, 2025 | Hours Worked: 1.50

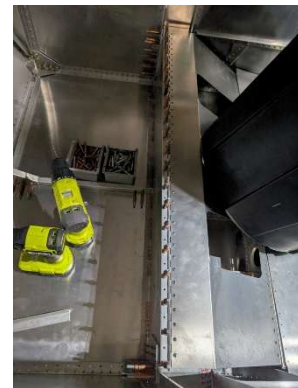
Updrilled hinge halves on seat pan channel, disassembled, deburred then riveted into final position. Installed forward seat pan with hinge pins then pinned forward mount hinge onto assembly. Located forward hinge onto spar tunnel and pilot drilled then updrilled. Removed forward hinge from aircraft then deburred spar tunnel and hinge holes.



Hinge halves riveted to seat
pan channel



Forward seat pan installed with
hinge pins



Forward seat pan hinge half
clecoed into place

Seat Installation – Part 3

January 31, 2025 | Hours Worked: 6.42

Parts Used: SNB-F08-02, SNB-F08-04, SNB-F08-05, SNB-F08-06, SNB-F08-07, SNB-F08-13, SNB-F08-14, SNB-F08-17, SNB-F08-18, SNB-F08-19, SNB-F10-15, SNX-F16-08

Riveted forward seat pan hinge half to spar tunnel. Marked and located upper seat back hinge half onto cross tie box and pilot drilled. Updrilled hinge, deburred, and riveted. Located rear seat pan centered to ribs and pilot drilled. Located seat support strap on seat attach angles and pilot drilled. Updrilled assembly then located and drilled lower seat back hinge half to seat pan. Removed seat pan, deburred all, then riveted lower hinge half to seat pan. Installed stick cover plate in center location of forward seat pan with CCP rivets. Pilot drilled top of forward spar tunnel to rear spar tunnel then updrilled. Located F16-08 side clips to top of spar tunnel then drilled, dimpled, and riveted to spar tunnel. Vacuumed out shavings from fuselage then reinstalled all seat pan components leaving out rear seat pan rivets per plans. Made rivet blanks to align seat pan without using clecoes. TEMP RIVETS PAINTED BLUE TO BE REMOVED BEFORE FINAL ASSEMBLY. Cut out temporary seat cushions from old mattress pad to test fit. F08 complete! Opted to not make fuselage brake parts pending locating of brake handle later.



Rear seat pan riveted and
deburred



Seat Pan components installed



Forward seat pan hinge half
riveted



Upper seat back hinge half
reference line



Upper seat back hinge half
pilot drilled



Hinge Half riveted



Seat back test fit



Rear seat pan updrilled



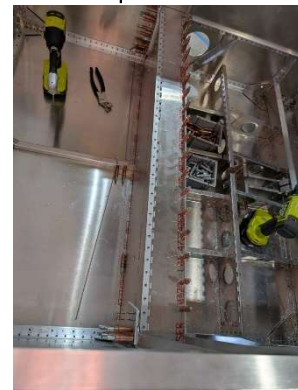
Lower seat back hinge half updrilled



Seat support strap located and drilled



Center stick cover plate riveted



Upper spar tunnel holes drilled



Side clips installed with flush rivets



Rear seat pan reinstalled. Temp blue rivets used to pin alignment



First time sitting in fuselage



Temporary seat cushion

SNB-F07: Glareshield/Panel Details

Instrument Panel Prep

February 5, 2025 | Hours Worked: 1.88

Parts Used: SNB-F07-02, SNB-F07-03, SNB-F07-05

Marked and bent -05 and -09 angles. Located -05 instrument Panel angles to back of instrument Panel and drilled/clecoed. Will install final rivets and dimple once panel is cut out.



Firewall angles marked

Firewall angles bent per plans
(60-68 degrees)

Instrument Panel angles bent



-02 instrument panel assembly
clecoed

SNB-F06: Glareshield/Panel Installation

Glareshield Installation – Part 1

February 5, 2025 | Hours Worked: 2.72

Parts Used: SNB-F07-06L, SNB-F07-06R

Located and clecoed firewall angles to upper firewall. Located and pilot drilled cross tie fittings to wing attach angle and upper longerons. Riveted cross tie fittings to wing attach angles but left clecoes in upper longerons so that forward spar tunnel can be removed. Located glare shield onto fuselage and pilot drilled to upper longerons.



Firewall angles clecoed



RH panel mount riveted



LH panel mount riveted



Glare shield located



Glare shield pilot drilled

Glareshield Installation – Part 2

February 6, 2025 | Hours Worked: 4.20

Made temporary seat cushions out of old mattress pad. Realigned glareshield to longerons and upper firewall and pilot drilled glareshield to firewall angle. Located instrument panel 3/4" back from edge of glareshield and pilot drilled glareshield to instrument panel angle. Updrilled all glareshield holes.



Temp seat cushions

Forward edge of glare shield
pilot drilled

Instrument panel pilot drilled

Firewall and glare shield
updrilled

Instrument Panel updrilled

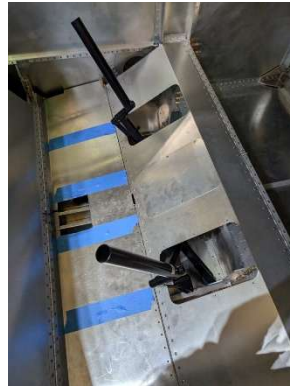
Glareshield Installation – Part 3

February 8, 2025 | Hours Worked: 1.25

Pilot then updrilled panel to corner plates. Removed panel and taped on proposed panel layout for mockup. Temporarily bolted control sticks into place to verify fitment of everything.



Corner plates updrilled



Control sticks temporarily installed



Flight deck mockup

Glareshield Installation – Part 4

February 11, 2025 | Hours Worked: 1.24

Removed panel, control sticks, forward fuselage floor, and glareshield in preparation for part prep



Components removed for prep

Glareshield Installation – Part 5

March 4, 2025 | Hours Worked: 2.24

Parts Used: SNB-F07-01, SNB-F07-09

Deburred glareshield parts then riveted firewall angles to firewall. Clecoed glareshield into place then riveted to upper forward longerons and firewall angles. Left out stiffener until gas tank installation.



Glareshield riveted to longerons



Glareshield riveted to firewall angles



Firewall angle riveted

Panel Installation – Part 1

May 10, 2025 | Hours Worked: 1.63

Began prepping panel for final riveting and installation by mocking up panel covers on panel backer. Fitment was just a little tight so filed away some material from inside edges of panel covers. Removed panel and flanges and dimpled every other hole for flush CCC rivets. Began installing nut plates in other holes on panel flanges for #6 panel screws.



Some holes in panel dimpled for CCC flush rivets



Began installation of nut plates on panel mount flange

Panel Installation – Part 2

May 13, 2025 | Hours Worked: 3.08

Parts Used: MK2000-6, MS21047L06K

Continued prepping panel flange by dimpling right side flange and installing nut plates. Installed flanges back onto glareshield and checked fitment with panel and panel covers. Removed panel and covers and marked hole and cutout locations on panel. Cut a piece of aluminum angle scrap to fit in throttle/mixture area behind panel cover and below panel blank. Drilled mounting holes and deburred. Began drilling nutplates in lower half of panel then dimpled and installed nut plates.



Nutplates installed in left panel flange



Nutplates installed in right panel flange



Flanges clecoed to glareshield



Marking holes on panel blank from panel covers



Throttle support angle located and pilot drilled



Panel blank marked for cutting



Holes marked in throttle support bracket



Bottom nutplates installed in panel blank



Bottom nutplates installed in panel blank

Panel Installation – Part 3

May 20, 2025 | Hours Worked: 2.57

Continued locating and installing nutplates into panel blank. Marked access hole locations on RH side of panel blank. Marked hole centers and began cutting out instrument holes into panel backer.



Nutplates installed



Nutplates installed



Center points drilled in circular voids



Began cutting out component holes

Panel Installation – Part 4

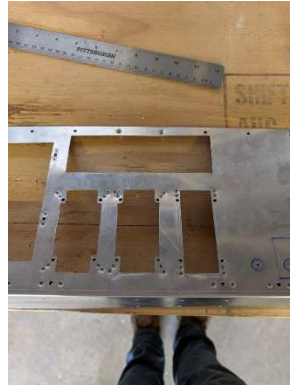
May 22, 2025 | Hours Worked: 3.72

Parts Used: 0.063 Sheet

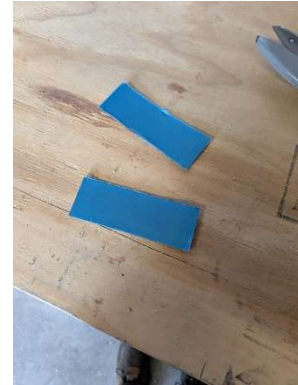
Continued cutting out holes for instruments in panel backer. Test fit with components part-way through cutting. Began prepping GPS175 tray for installation by cutting outside brackets from .063 sheet. Bent brackets and drilled lighting holes. Cut out notch in LH bracket for SkyView display nutplate.



Component cut outs complete on left side of panel



Cutouts complete on center section of panel



Garmin GPS175 bracket blanks from 0.063 sheet



Garmin GPS175 tray brackets



Panel progress so far

Panel Installation – Part 5

May 23, 2025 | Hours Worked: 2.30

Parts Used: 010-01822-01, K2000-8, MS24693-S48

Located GPS175 tray brackets onto tray and marked hole locations. Drilled screw holes into side brackets then installed 8-32 nutplates. Attached brackets to tray and mocked up location on panel backer. Updrilled bracket attach holes then prepped brackets and panel backer for flush rivets. Riveted

GPS175 mounting tray to panel backer. Drilled out holes for flap switch and power outlet in right side of panel and checked fitment. Also drilled smaller anti-rotation hole in panel backer for flap switch.



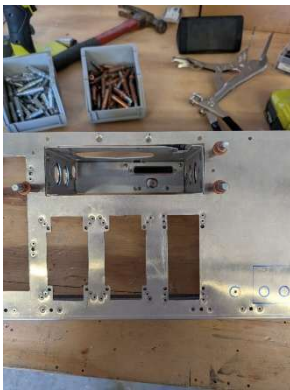
Drilling holes for nutplates



Nutplates installed



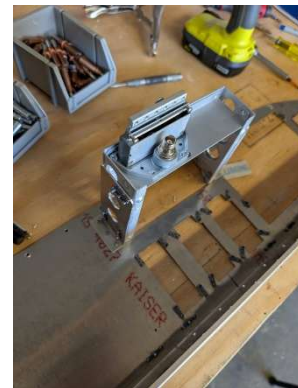
Side brackets installed onto
GPS tray



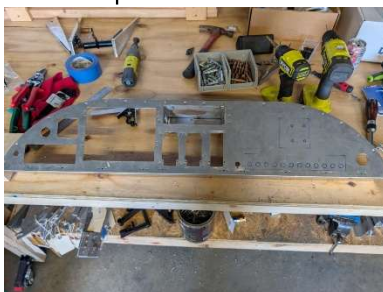
GPS tray mocked up onto
panel backer



GPS tray mounted



GPS tray mounted



Holes in right side of panel
drilled

Panel Installation – Part 6

May 27, 2025 | Hours Worked: 1.18

Finished cutting out access holes in right side of panel blank. Test fit right panel with circuit breakers installed for clearance; fit okay. Temporarily reinstalled panel backer into fuselage with clecos.



Panel cutouts complete



Panel cutouts complete

Panel and Glareshield Wrap up

August 22, 2025 | Hours Worked: 1.52

Parts Used: SNB-F07-02

Installed rivets between panel blank and cross tie fittings. Riveted lower control angle for throttle, mixture, and trim onto lower edge of panel blank. Installed temporary #6 screws into panel blank then flush riveted panel to angles. Then riveted panel angle to front of glareshield. Notched out small area on right side of glareshield for the fuel vent line to pass through.



Panel cross tie rivets installed



Control angle riveted to bottom edge of panel blank



Temporary #6 screws installed in panel



Panel blank and angles riveted

Glareshield notch-out for fuel
vent hose

Glareshield Covering

September 4, 2025 | Hours Worked: 1.55

Parts Used: 8507K65, MCDN-2L [MCDN2L2209155]

Prepped glareshield for cover installation by scotchbriting surface then cleaning with paint prep. Blew debris off glareshield then laid fabric on top of glareshield and rough-cut edges. Sprayed 3M Super 77 adhesive onto half of glareshield then rolled fabric flat. Repeated the process for the right side of the glareshield then rolled entire area flat. After letting adhesive set for a few minutes, finely trimmed fabric with exacto knife then used a putty scraper to tuck fabric neat. Installed weatherstripping onto glareshield edges to clean up look. Poked holes for compass through bottom of glareshield then installed MCDN-2L compass onto glareshield.



Glareshield cleaned



Rough cut of fabric



Adhesive applied



Glareshield fabric trimmed



Weatherstripping installed



Compass installed

SNB-F04: Seat Belt Installation

Seatbelt Installation – Part 1

August 22, 2025 | Hours Worked: 0.79

Parts Used: AN365-524A, AN5-7A, AN960-516

Began seatbelt installation by placing AN5 bolts in center seatbelt channel with grabber extension. Wrapped chrome ends of lap belts in painters' tape to prevent scratching. Followed plans and placed buckle ends of seatbelt on inside. Set approximate lap belt angle and tightened AN5 hardware. Repeated process for outside belts. Marked all four seatbelt bolts with torque seal.

AN5 hardware installed in
center seatbelt channel

Lap belts installed

Torque seal applied to seatbelt
hardware

Seatbelt Installation – Part 2

July 30, 2026 | Hours Worked:0.42

Parts Used: AN365-524A, AN5-6A, AN960-516, SeatBelts

Updrilled shoulder harness attach points to 5/16" and bolted seatbelt shoulder harnesses with AN5 hardware. Applied torque seal to bolts.



Shoulder harnesses bolted to seatbelt attach angles



Seatbelt installation complete

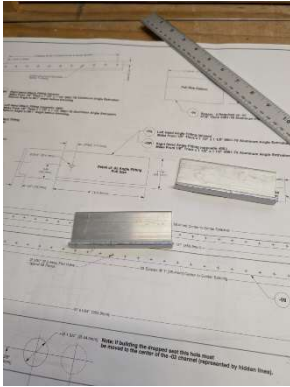
SNB-F03: Rear Spar Carry Through

Rear Spar Carry Through Assembly

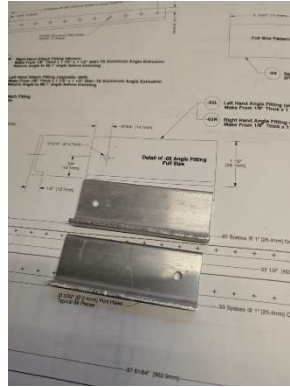
April 11, 2025 | Hours Worked: 6.65

Parts Used: 1.5x0.190x10.25 Bar, 1.5x1.5x0.125x96 Angle, AN3-5A, AN3-7A, AN365-1032A, AN960-10, SNB-F03-01, SNB-F03-04, SNB-F03-07, SNB-F03-09, SNX-F03-02, SNX-F03-03, SNX-F03-05L, SNX-F03-05R, SNX-F03-08, SNX-Z02-03 (96), SNX-Z04-03 (96)

Created F03-02, F03-05L/R, F03-08 and -04/-07 spacers from legacy plans using angle and channel stock on hand. Clecoed together -01 rear spar carry through assembly together then updrilled all holes. Disassembled part and prepped parts for final assembly. Assembled all parts with rivets and AN3 hardware. F03 complete!



Cut angle stock for angle fittings



Manufacture of -05L/R angle fittings



-02 channel cut



Shear angle cut and pilot drilled



Rear spar carry through clecoed together



Rear spar carry through complete



Rear spar carry through complete

SNB-F02: Wing Rigging

Wing Rigging – Part 1

June 13, 2025 | Hours Worked: 2.37

Removed forward tunnel zee and forward wing attach angles from fuselage. Updrilled alignment holes in forward and aft spar tunnels to 5/8" to facilitate rigging bolts. Removed wing root doublers from wings in preparation for wing rigging procedure. Began process of leveling fuselage by putting tail on a sawhorse and then shimming L/R main tire for lateral levelness. After mains were shimmed with scrap aluminum, shimmed sawhorse legs for longitudinal levelness. Cut F02-02 spar bumper stock down to size per plans.



Forward tunnel zee removed



Forward tunnel zee removed



Rigging holes upsized



Rigging holes upsized



Wing doublers removed



Fuselage leveling in progress



Fuselage leveling in progress



Fuselage leveled



Spar bumpers cut

Wing Rigging – Part 2

June 14, 2025 | Hours Worked: 4.43

Began wing rigging process by inserting RH wing into spar box then inserting LH wing. Supported wing tips with sawhorses while trying to align the three rigging holes between the two spars. Process went much easier with three people: one on each wing tip and one person inserting bolts. After bolts were inserted into the rigging holes, stacked washers on bolts and tightened spars together. Adjusted wings to be centered on fuselage then placed spar bumpers below spars onto lower longerons. Used laser level to level wing tips based on laser plane; measured from bottom of spar at wing tips. Set wing incidence angle by using clamps on rear spar to set them at plans dimensions. Temporarily installed rear spar carry-through with AN3 hardware. Finally checked wing squareness to fuselage by measuring tip to tail; squareness verified with 3/16" difference in measurements due to spar overlap. Clamped spars to rear tunnel web and followed plan instructions to first drill rear wing angles to 3/8" with drill guide then updrill to 1/2". Inserted bolts partway through from rear then reinstalled forward tunnel zee and wing attach angles. Will drill forward wing attach angles tomorrow.



RH wing placed into spar box



Both wings placed into spar box



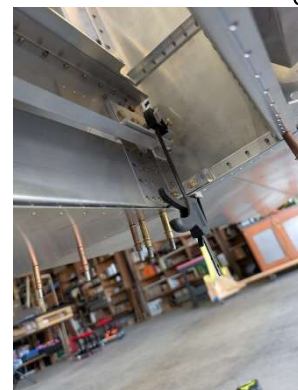
Spars pinned via rigging holes and centered with fuselage



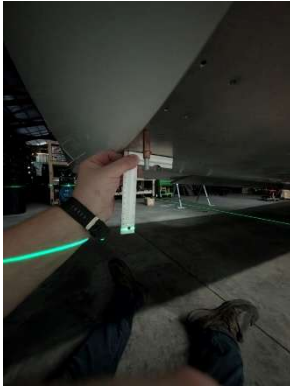
Rear spar carry-through temporarily installed



Setting incidence angle using clamps



Setting incidence angle using clamps



Verifying tip height using laser level



Drilling rear wing attach angle using drill guide



Updrilling rear wing attach angle to 1/2"



Forward tunnel zee reinstalled

Wing Rigging – Part 3

June 15, 2025 | Hours Worked: 3.62

Finished drilling main wing attach holes by using drill guide to drill 3/8" holes in forward wing attach angles (from back to front) then updrilling each side to 1/2". Wing pins fit it snug and wings do not wiggle on fuselage. Realized rear spar carry through was installed backwards so flipped it and made temporary 3/16" pin out of an AN3 bolt to pin rear spars to carry through. Clamped rear spar attach fittings into place and pilot drilled into carry through. Removed carry through from fuselage and updrilled attach fitting holes and upsized rear spar holes to 1/4". Updrilled rear spar holes to 1/4" while installed in fuselage with flexible drill extension. Also drilled and located F03-07 spacers onto carry through. Re-clecoed everything together then installed then pinned rear spars through carry through. Rechecked wing incidence angle by using spar stands and digital level and pilot drilled rear attach angles to fuselage sides. Located shear angle below rear spar carry through then pilot and updrilled to lower crossmember and carry through.



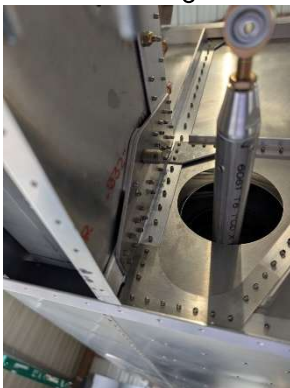
Pilot drilling forward wing
attach angles



LH main wing attach angle
drilled



LH main wing attach angle
drilled



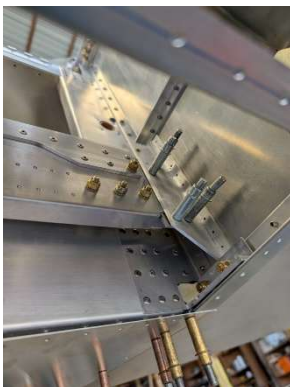
RH main wing attach angle
drilled



RH main wing attach angle
drilled



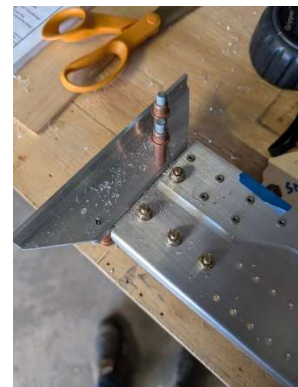
Alignment pin for rear spars



LH rear spar attach angle pilot
drilled



F03-07 spacer being located
on rear spar carry through



Rear spar attach fitting
updrilling



Rear spar holes updrilled to 1/4"



Locating RH rear spar attach angle onto fuselage side skin



LH wing incidence angle being checked



RH wing incidence angle being checked



Rear spar carry through shear angle drilled



Rear spar carry through progress

Wing Rigging – Part 4

June 27, 2025 | Hours Worked: 2.38

Parts Used: SNB-F03-01, SNB-F03-06L, SNB-F03-06R, SNB-F03-07, SNX-F03-08

Removed rear spar carry through from fuselage then updrilled attach angle holes through fuselage. Removed attach angles from fuselage then deburred rear spar carry through, shear web, and attach angles. Finished riveting rear spar carry through then riveted shear web onto carry through. Placed assembly back into fuselage and clecoed into place with spars pinned in place as well. Riveted attach angles to carry through then riveted shear web onto lower crossmember. Will rivet attach angles to fuselage skins once wings are removed.



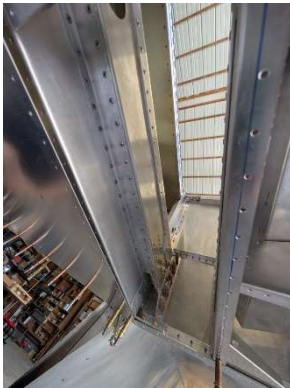
RH attach angle updrilled



LH attach angle updrilled



Shear web riveted onto rear spar carry through



Carry through riveted to fuselage



Carry through riveted to fuselage



Rear spar carry through complete

SNB-F01: Fuselage Complete

Fuselage Final Riveting – Part 1

June 29, 2025 | Hours Worked: 1.85

Parts Used: SNB-F02-02

Drilled holes through spar bumpers then riveted to fuselage with spars in place. Clecoed fuselage floor into place to check fitment with all holes aligning. Transferred pilot holes from floor into bottom of forward spar tunnel assembly then updrilled to #30 and clecoed into place.



Spar bumpers riveted into place



Fuselage floor clecoed on and forward spar web updrilled



Fuselage progress to date



Fuselage progress to date



Fuselage progress to date



Fuselage progress to date

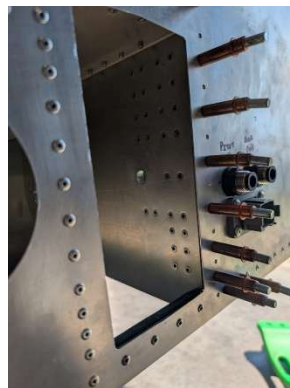
Fuselage Final Riveting – Part 2

July 18, 2025 | Hours Worked: 1.13

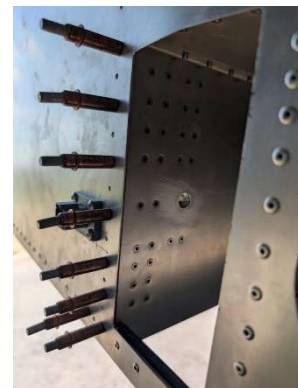
Removed forward fuselage floor for better access to forward tunnel zee. Deburred new holes in fuselage floor and new bottom holes in forward zee. Used hand riveter to flush rivet forward wing mount plates to forward tunnel zee.



Flush riveting forward tunnel zee to wing mounts



RH flush rivets complete



LH flush rivets complete

Fuselage Final Riveting – Part 3

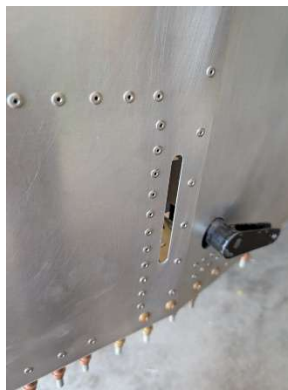
August 15, 2025 | Hours Worked: 3.20

Parts Used: SNB-F08-10

Did some more final fuselage work by temporarily reinstalling forward fuselage floor then riveting rear spar angles to fuselage sides and forward seatbelt channel to inside seat ribs. Transferred pilot holes from angles on top of spar tunnel to fuselage sides, updrilled and deburred, then riveted angles and forward wing mount angles to fuselage sides. Final riveted forward seat pan channels to vertical spar angles and top of forward tunnel zee to rear spar web assembly. Located seat support angles on side walls then updrilled side holes. Temporarily clecoed seat pan in place to transfer holes from seat pan to angles. Removed seat pan and angles to deburr parts then riveted angles to fuselage sides.



Final rivets installed in seat belt channels



Rear spar angles riveted to fuselage sides



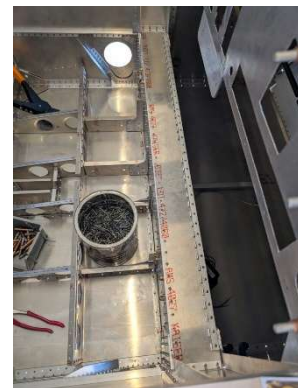
Spar tunnel top angle brace holes transferred and updrilled



Forward wing attach angles riveted



Forward seat channels riveted



Top of spar tunnel riveted



Seat pan temporarily installed
and holes transferred to
support angles



Seat pan support angles
riveted

Fuselage Final Riveting – Part 4

August 22, 2025 | Hours Worked: 1.09

Now that all work under the aft seat pan has been completed, clecoed aft seat pan to ribs and final riveted.



Aft seat pan clecoed into place



Aft seat pan riveted

Fuselage Side Panels – Part 1

August 28, 2025 | Hours Worked: 1.50

Tested fuselage side panels by trimming RH side panel from ABS sheet and making small adjustments to test fit.



Testing fit of fuselage side panel



Trimmed RH side panels. Still need to be cleaned up

Fresh Air Vents

September 16, 2025 | Hours Worked: 2.92

Parts Used: Vent

Rather than installing round vents in the windshield as is shown in the plans, decided to use the Vans vent sidewall kit. Worked on fresh air vents by cutting apart components from Vans vent kit and cleaning edges of parts. Riveted vent door assembly together using pulled rivets then measured and laid out doubler plate on LH fuselage side. Drilled rivet holes then marked area to cut. Cut out fuselage sides with rotary tool and filed edges so that door mechanism would swing clear. Clecoed vent assembly together to verify clearances and smoothness of operation before riveting doubler and bracket to fuselage side. Installed vent door using included hardware and installed vent door knob with bent rivet tail. Repeated process for RH side of fuselage.



Vans vent kit parts prepped



Vent door assemblies riveted



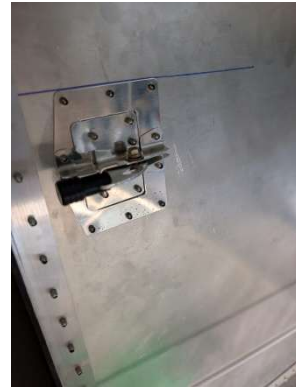
Drilling doubler holes and marking vent cutout



Vent cutout complete and
cleaned up



Vent assemblies complete



Vent assemblies complete



Vent assemblies complete

Fuselage Side Panels – Part 2

July 29, 2026 | Hours Worked: 1.00

Trimmed lower and upper seat pans for better clearance of wire bundles and side panels. Test fit RH side panel and trimmed a couple more places for better wire clearance.



Trimming lower seat pan



Testing seat pan fitment



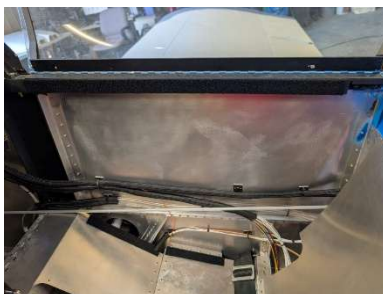
Trimming RH side panel and checking clearance for final installation

Fuselage Side Panels and Wrap-up

July 30, 2026 | Hours Worked: 4.60

Parts Used: SNB-F05-10L, SNB-F05-10R

Tweaked fitment of RH side panel by trimming a little more off of the rear side of the panel. Attached Velcro strips to back and bottom of side panel and upper longeron and seat pans. Installed side panel and checked fitment. Rough trimmed LH side panel from ABS sheet and went through a couple iterations of fitting side panel then removing to trim. Made notches in side panel for canopy latch nubs and safety pin hole. Finally got fitment correct and installed Velcro strips on panel and fuselage. Removed canopy latch knob and ground one side flat to clearance canopy safety pin then reinstalled canopy knob. Reinstalled side air vents into fuselage. Attached document holder to RH side panel with Velcro. Reinstalled seat pans and installed stick boots Velcro on forward seat pan. Installed Velcro strips for seats on pans as well.



Velcro installed on upper longeron



Velcro installed on RH side panel



RH side panel installed



LH side panel final trimmed



LH side panel installed



Canopy latch knob trimmed



Side air vents installed



Document holder installed



Stick boots installed



Seats installed

Safety Equipment Mounting

August 3, 2026 | Hours Worked: 0.79

Parts Used: SNB-B04-07

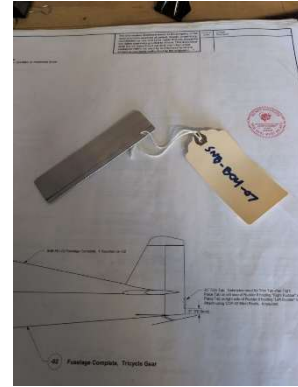
Mounted fire extinguisher and crash hammer to forward fuselage with Velcro straps and adhesive pads. Manufactured rudder trim tab from scrap aluminum.



Fire extinguisher mounted on forward fuselage side panel



Crash hammer mounted on forward fuselage side panel



Rudder trim tab manufactured

Fuselage Floors – Part 1

August 11, 2026 | Hours Worked: 0.87

Aligned aft fuselage floor and clecoed to fuselage. Riveted forward floor stiffener and gussets to firewall and forward spar tunnel zee. Clecoed forward fuselage floor onto fuselage ensuring gussets and spacers stayed aligned properly. Floor now ready to rivet.



Aft fuselage floor clecoed



Forward floor stiffener riveted



Forward fuselage floor clecoed

Baggage Compartment Wrap-up

August 12, 2026 | Hours Worked: 2.87

Parts Used: 0.025 Sheet, SNX-Z03-02 (96)

Cut 0.025" aluminum sheet and extra SNX-Z03-02 stock to create elevator pushrod cover in baggage compartment. Riveted pieces together then installed Velcro strips on baggage compartment floor and cover. Installed pushrod tunnel and verified no interference with flight controls. Cut rear baggage

compartment covers out of 0.025" sheet and attached to #2 former structure with Velcro strips. Routed seatbelts through upper baggage compartment cover then attached cover with provided Velcro strips.



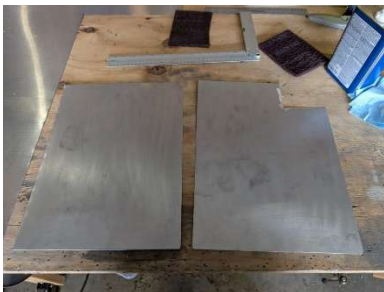
Elevator pushrod cover
fabricated



Velcro strips applied to
baggage compartment floor



Pushrod cover installed



Rear baggage panel covers
fabricated



Baggage compartment covers
installed

Fuselage Floors – Part 2

August 16, 2026 | Hours Worked: 4.18

Parts Used: AN365-1032A, AN365-428A, AN525-10R11, AN960-10, JSX-D02-13

Began final installing fuselage floors by installing AN525 hardware in the forward lower engine mounts, the aft splice plates, and the tailwheel mount bulkhead. Final installed antennas, autopilot servos, seat pans, fuselage side panels, and seats. Began riveting aft fuselage. Replaced missing canopy alignment pin and added locknuts to cover protrusions and potential of pins becoming loose.



Forward floor bolts installed



Splice plate bolts installed



Tailwheel mount bulkhead
bolts installed



Antennas installed



Fuselage floor components
reinstalled



Interior pieces installed



Aft fuselage floor riveting
began

Fuselage Floors – Part 3

August 19, 2026 | Hours Worked: 2.65

Parts Used: Dataplate, Heyco 1699, SNB-F16-01, SNX-F22-01

Finished riveting aft fuselage floor. Riveted forward fuselage floor working one line of rivets at a time to make sure proper sizes were used. Installed plug in aft fuselage floor to protect tail spring bolt. Riveted data plate on LH fuselage side underneath horizontal stabilizer.



Aft fuselage floor riveted



Forward fuselage floor riveted



Plug added to protect tail spring bolt



Data plate riveted to fuselage

Aircraft Weighing Prep

August 22, 2026 | Hours Worked: 1.39

Made preparations for weighing aircraft by draining fuel from fuel tank. Cut small ramps out of 1" x 8" wood on a 45 degree angle; thickness should allow for aircraft main tires to roll right onto scales without tipping them up. Made tailwheel scale stand out of scrap wood to hold aircraft approximately level during weighing process.



Main wheel scale ramps made from 1x8



Tail stand cobbled together from scrap wood



Testing out weighing rig for aircraft

Aircraft Weight and Balance

August 24, 2026 | Hours Worked: 3.90

Completed weighing process for initial weight and balance of aircraft. Started by leveling aircraft with tail wheel stand and aligning aircraft to floor squares. Ran tape measure along centerline of the aircraft and dropped plumb bob from spinner to set tip of spinner at 0" (datum). Also dropped plumb bob from tailwheel to ensure tape was square with aircraft. Using laser level, established stations needed for weight and balance report and recorded arms for items in equipment list. After distances and arms were established, prepared aircraft and scales for weighing process. Decided to use Amazon postal scales (rated for up to 440 lbs each) rather than purchase or borrow certified aircraft scales. Placed ramps and scales in front of each main wheel. Placed garbage bags on top of scales to prevent friction from side-loads then tared scales with chocks on as well. Rolled aircraft onto scales and observed weights that were significantly less than what they should be after placing aircraft in level position. After experimenting a bit, discovered that the small wheel contact patch was bending the plastic scale platform and not equally contacting all four load cells on each scale. Cut (2) 1 sqft OSB platforms to go in between scales and garbage bags to help better spread the load out over the scale platforms. Repeated tare process then rolled aircraft onto main wheel scales. Lifted tail wheel and placed platform and tail wheel scale under tail wheel to level aircraft and recorded weights. Repeated this process two more times rotating scales through each wheel position to generate average weight for each wheel. Results of weighing process are as follows:

Trial	Left Main	Right Main	Tail Wheel	Total
Trial 1	344.22	345.94	40.64	730.80
Trial 2	341.18	343.50	41.10	725.78
Trial 3	339.84	339.90	40.72	720.46
Average (Final)	341.75	343.11	40.82	725.68

Completed weight and balance report giving a final empty weight of 725.68 lbs and empty CG of 64.5845 inches.



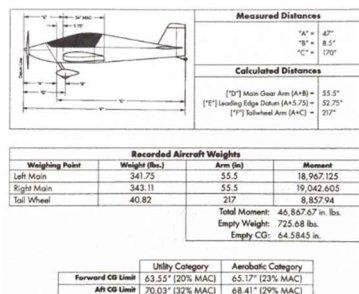
Using tape measure and laser level to determine equipment arms



Tail wheel scale setup



Main wheel scale setup



Completed weight and balance report

Aircraft Complete!

August 27, 2026 | Hours Worked: 2.09

Conducted flight test card C and D along with high speed taxi test to verify AeroInjector tuning and ability for engine to generate static RPM. After letting engine parameters stabilize, recorded data for test card C and testing mixture, fuel valve, and magneto shut-off methods. With help from Hannah, performed wet compass deviation check and Dynon compass calibration by taxiing over to area away from hangars. Positioned aircraft on each 30 degree heading verified by person outside the aircraft holding a compass and recorded magnetic compass indication. Calibrated Dynon on cardinal headings at the same time. Also took measurements for turning radius diagram. F01 task and aircraft build now complete!



Aircraft complete!



Aircraft complete!



Aircraft complete!

Section 5: Powerplant

SNB-P14: Battery Box

Battery Box – Take 1

October 29, 2025 | Hours Worked: 0.87

Parts Used: 0.032 Sheet

Measured out ETX900 battery to make flat sheet template for cutting battery box. Added 1/4" to depth to account for edge of piano hinge on LH side. Drilled corner relief holes and mounting rivet holes then cut flat template with Andy snips. Bent flat sheet with bench brake then realized bends were going wrong direction and opening would be on RH side (towards center). Will not be able to reverse bends so will need to remake template.



Battery box flat template



Battery box flat cut



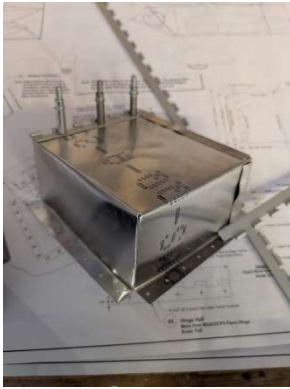
Bending battery box

Battery Box – Take 2

October 30, 2025 | Hours Worked: 4.44

Parts Used: 0.032 Sheet, ETX900, SNB-P14-02, SNB-P14-03

Second attempt at making battery box by recutting out template from 0.032 sheet stock and bending with bench bender. Deviated from plans design by omitting LH side panel to be replaced with hinged panel for side removal of battery. Cut various lengths of -3 piano hinge and riveted hinge halves to battery box using flush rivets. Made battery box depth an extra 1/4" deep to account for sliding battery out with hinge half riveted to firewall. After confirming battery would fit in the box, located the battery box on the firewall and pilot drilled box to firewall. Updrilled holes then removed box for deburring. Riveted battery box to firewall then attached foam pads that came with battery to backside of firewall. Tested fit and removal of battery; ops check good. P14 complete!



New battery box cut and bent



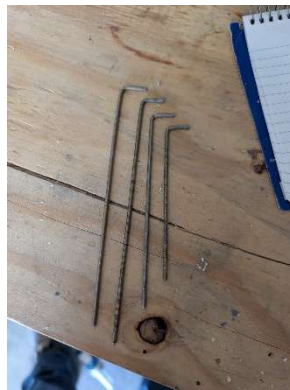
Flush rivets used on piano hinges



Battery box strap cut and bent



Removable side door for battery



Hinge pins for battery box



Battery box located and pilot drilled



Inside view of battery box mount location



Foam strips added



Battery box complete



Battery box complete

SNB-P13: Cowling Installation

Cowl Hinges – Part 1

January 1, 2025 | Hours Worked: 0.33

Parts Used: SNB-P13-08

Creation of -08 Hinge Half from P3 piano hinge stock.

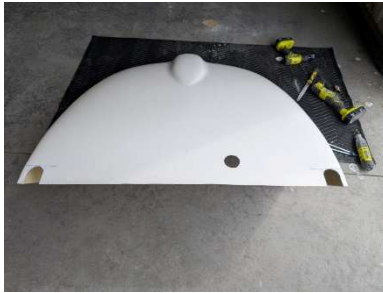


-08 hinge half

Cowl Fitment – Part 1

April 8, 2026 | Hours Worked: 4.40

Began fitment of lower cowl by marking out locations for gear legs and fuel drain. Slid lower cowl into place and measured front face of cowl offset by approximately 1". Trimmed back edges of cowl 1/2" at a time while moving cutouts forward at the same time. Refit cowl and determined that proper forward alignment is being prevented by forward bottom edges of the oil cooler impacting the cowl. Made cut out on front of cowl for oil cooler to get better look at engine interference. Will need to solve interference issue before continuing to fit lower half of cowl.



Initial cowl openings



Initial front fitment of lower cowl



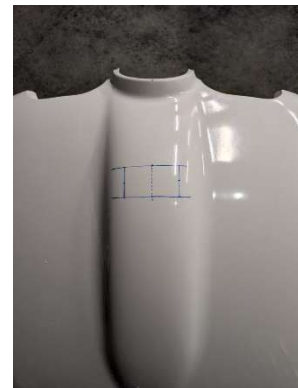
Lower cutouts expanded



Prop opening trimmed



Lower cowl fitment close



Oil cooler intake laid out



Oil cooler intake cut



Oil cooler interference

Cowl Fitment – Part 2

April 14, 2026 | Hours Worked: 4.00

Decided to solve oil cooler clearance issue by moving oil cooler up by about 5/8". Removed oil cooler bracket from bottom of engine and remade bracket from 1.5" x 1.5" aluminum angle stock with shorter

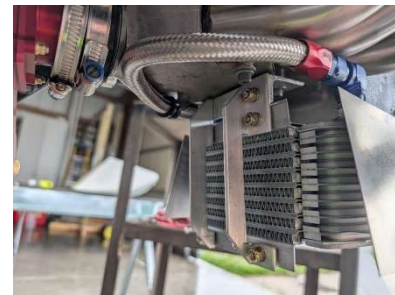
leg. Installed new bracket on bottom of engine with Loctite 242 then reinstalled oil cooler to new bracket. Reinstalled lower cowl and verified oil cooler interference was eliminated and prop opening fell to an acceptable location. Removed cowl to trim away air intake openings and open up RH gear leg hole slightly. Reinstalled cowl and verified lower cowl fit properly into place. Bolted prop spacer to prop hub and used screws to temporarily secure front of cowl to the proper place; will patch screw holes at later time. Cut left, right, and bottom cowl hinge halves from piano hinge stock and drilled pilot holes. Also cut and bent hinge pins then installed hinge halves and pins to firewall hinges in preparation of mounting to cowl.



Old and new oil cooler mounts



Oil cooler remounted higher



Oil cooler remounted



Lower cowl refit into place

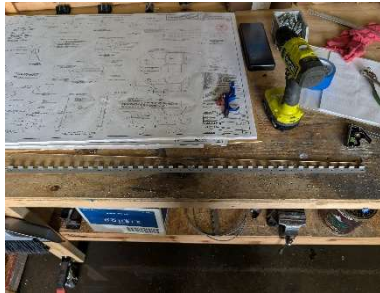


Air intakes rough cut

Lower cowl attached to prop
hub spacer



Cowl side hinges and pins



Lower cowl hinge and pin



Cowl hinges mounted on firewall

Cowl Fitment – Part 3

April 17, 2026 | Hours Worked: 3.02

Aligned the cowl into its final place then pilot drilled side hinges to cowl. Initially only pilot drilled a few holes due to space constraints. Pilot drilled a few holes in the bottom cowl hinge half by using flashlight method to locate holes through the fiberglass. Removed cowl and hinges from the airframe then finished drilling pilot holes in hinge mounts. Removed another 1/8" from bottom lip of the cowl for better fitment. Refit cowl to airframe to verified fitment. Sanded off an additional 1/16" from the bottom lip of the cowl to clear the forward fuselage floor. Removed air intake blanks from upper cowl and marked multiple trim lines on back edge to make future trimming easier.



Side hinges pilot drilled to cowl



Used flashlight method to locate lower cowl hinge holes



Lower cowl mount hinge partially drilled



Mount hinge halves pilot
drilled and clecoed



Upper cowl air intakes cut



Multiple trim lines marked

Cowl Fitment – Part 4

April 21, 2026 | Hours Worked: 5.40

Parts Used: 0.025 Sheet, 0.063 Sheet

Began fitting upper cowl by placing onto lower cowl and notating baffling interference. Trimmed front of baffles by about half an inch and rechecked clearances. Made the determination that tucking upper cowl under the windshield skirt will likely make removing the upper cowl difficult with prop in place. Began process of making a shelf for the upper cowl to sit on by tracing the curvature of the windshield skirt on poster board. Used paper template to cut cowl mount shelf out of 0.025 aluminum sheet. In order to have the cowl sit flush with the skirt, made spacers to sit between shelf and windshield skirt out of 0.063" strips. Clamped assembly together then pilot drilled and clecoed shelf into place. Went back and forth a couple of times trimming the upper cowl and re-trying fitment. Will still need more trimming before final fitment and drilling attach screws. Prop opening area still needs trimming as well.



Marking trim lines for cylinder baffles



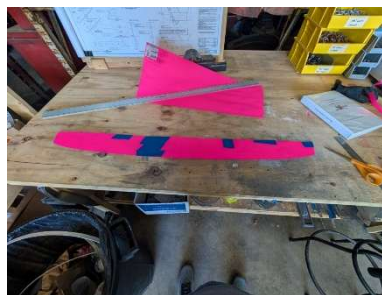
Cylinder baffles trimmed



Initial fitting of upper cowl



Tracing skirt geometry onto poster board



Upper cowl shelf template cut



Transferred pattern onto 0.025" sheet



Cowl shelf cut



Upper cowl shelf installed with spacers



Upper cowl fitment getting closer

Cowl Fitment – Part 5

April 22, 2026 | Hours Worked: 2.59

Continued to trim upper cowl to reach alignment with lower cowl. Removed lower cowl to clearance prop opening a little more. Used the bandfile belt sander for the last few passes which resulted in a slightly cleaner edge on the backside of the upper cowl. Once fit was close, reinstalled prop alignment hub and secured upper cowl in place. Notated a slight gap in between upper and lower cowl and used a laser level to confirm upper cowl edge needs material added to make a level gap. Trimming completed for now and will need to shift to adding glass in the future.



Trimming of upper cowl
continued



Trimming of upper cowl
continued



Upper cowl fitment



Upper cowl ready for glass
work

Cowl Fitment – Part 6

June 17, 2026 | Hours Worked: 1.89

Began prepping upper cowl for fiberglass work by removing prop and spinner from engine then reinstalling lower cowl and cowl alignment spacer. Placed upper cowl into approximate position and secured to spacer. Traced 1.5" line along upper cowl to mark limits of new fiberglass. Removed upper cowl and began to feather lower edge in preparation of fiberglass work.



Prop and spinner removed and lower cowl installed



Upper cowl installed with spinner spacer



Marking fiberglass overlap line



Upper cowl sanding in progress

Cowl Fitment – Part 7

June 18, 2026 | Hours Worked: 1.84

Continued to sand lower edge of upper cowling in preparation of lengthening the lower edge using hand and orbital sander with 60 grit. Finished rough sanding with 120 grit discs; should now be ready for fiberglass work. Cleaned upper edge of lower cowl with paint prep solution and applied packing tape to overlap area. Covered engine with trash bags in preparation. Cowl should now be ready for layup process.



Finished sanding upper cowl



Engine covered and overlap of lower cowl taped



Cowling ready for layup

Cowl Fiberglass Work – Part 1

June 29, 2026 | Hours Worked: 1.27

Prepped upper cowl for fiberglass work by cleaning areas with acetone and adding more packing tape to lower cowl. Cut (3) 32" strips of fiberglass for each side of the cowl at 1.25, 1.50, and 1.75 inches wide. Mixed small batches of West system epoxy (105 resin and 205 hardener) and saturated bottom strip before laying it onto the top cowl. Worked other strips onto work piece and used bush to apply epoxy to fiberglass. Used putty spreader to push fiberglass into recess. Repeated process on LH side of cowl then added small scrap pieces to inside edges of air intakes. Will let epoxy cure for a few days before beginning sanding process.



Fiberglass added to LH side of upper cowl



Fiberglass added to RH side of upper cowl



Fiberglass added to inlet ledges

Cowl Fiberglass Work – Part 2

July 2, 2026 | Hours Worked: 3.66

After leaving the fiberglass to cure for a couple days, marked rough cut line and gently pried the top cowling off of the bottom cowling without incident. Rough sanded upper cowl using 60 grit sand paper to level bottom edge and start to feather transition area. Temporarily installed top cowl back onto airplane to check fit: general fit okay. Made a dry micro mixture (a bit too runny in hindsight) and applied to inside edge of cowl to build up back side of lip. Let epoxy firm up then repeated process for outside edge of cowl using a slightly thicker dry micro mixture. Used squeegee to try and smooth application with minor success. Will let epoxy set before second round of sanding and final trimming of bottom lip.



Top cowl separated from lower cowl



Rough trim line marked



Rough sanding upper cowl



Micro mixture applied to inside edge



Micro mixture applied to outside lip of cowl



Micro mixture applied to outside lip of cowl

Cowl Fiberglass Work – Part 3

July 3, 2026 | Hours Worked: 3.40

After allowing epoxy to cure, used 60 grit sandpaper and hand sanding block to rough shape cowl curvature and knock down spatter and high spots. Tried to focus on transition areas between existing cowl and new work to make transition smoother. Initial sanding identified multiple valleys and pin holes that will need another coat of filler. Laid cowling back onto airframe and drilled pilot holes in upper cowl and firewall shelf to hold the backside of the upper cowl in place. Traced upper cowl edge onto lower cowl with sharpie and created "station lines" every 4 inches. Removed upper cowl and measured offset from existing cowl edge to desired cowl edge at stations then transferred measurements onto upper cowl. Connected points with a ruler then began hand sanding the cowl edge down to the sharpie line. Reinstalled upper cowl and made fine adjustments by pulling edge out from lower cowl. Repeated process for the LH side as well. Removed upper cowl and placed packing tape onto lower cowl in preparation for another round of micro balloons. Cleaned upper cowl with acetone then made a stiffer micro mixture than last time that seemed to work better (1.5oz epoxy mixture to ~3.5oz of micro balloons). Applied filler to low spots with cowl in position.



Rough sanding cowl curvature and transition line



Upper cowl screw holes pilot drilled and attached to upper cowl shelf



Marking trim reference line on RH side



Trimming RH edge



RH cowl edge trimmed



LH cowl trim line marked and measured



LH edge trimmed



Second round of filler applied

Cowl Fiberglass Work – Part 4

July 10, 2026 | Hours Worked: 3.60

Removed upper cowl from lower cowl again and began sanding upper cowl. Started with 60 grit and moved up to 240 grit sandpaper to better blend transition area. Finished sanding with upper cowl mocked up onto lower cowl to better blend transition. After sanding most of the new work with 240 grit, discovered a few “valleys” that needed more micro. Mixed up a stiff batch of micro and filled in low valley areas with a popsicle stick; hopefully this will be the last time filler is needed. Set upper cowl aside and removed lower cowl from aircraft. Marked cowl vent cutout pattern from plans on each side of lower cowl and cut out radii with 2” and 0.5” drill bits. Used rotary tool to cut the rest of the openings

then sanded openings smooth. Test fit cowl vents; fit check good. Drew out exhaust tunnel pattern on lower cowl then trimmed exhaust tunnel area out to a rough area.



More sanding on upper cowl



More sanding on upper cowl



Micro added to low spots



Cowl vent cut pattern laid out



Holes drilled for corners



Test fit of cowl vent



Exhaust tunnel layout marked



Exhaust tunnel outlets cut

Cowl Fiberglass Work – Part 5

July 13, 2026 | Hours Worked: 3.55

Fine sanded upper cowl with 240 grit to see if latest application of micro filled in low spots; overall looks good. Will try to use some high build primer to help with pin holes but overall upper cowl looks

good. Reinstalled both upper and lower cowls onto aircraft then pilot drilled mounting holes through upper and lower cowl halves. Removed cowl alignment spacer from prop hub and verified cowl would hold position. Updrilled all 3/32" holes (including hinge holes) to #30 and removed cowl halves. Deburred mount hinges and sanded scarf joint on aft edge of lower cowl for slight edge extension. Decided to omit lower exhaust tunnel lips for now to save on cooling drag (and because additional cooling exhaust is provided via side scoops. Reattached lower cowl and prepped rear edges for micro work. Applied stiff micro mixture to aft edge of cowl over packing tape to prevent epoxy from sticking to fuselage or hinge halves.



Upper and lower cowls pilot drilled



Mounting holes updrilled



Aft cowl edge scarfed for extension



Area prepped for micro



Stiff micro mixture applied

Cowl Fiberglass Work – Part 6

July 14, 2026 | Hours Worked: 1.77

Removed lower cowl from fuselage and removed hinges and clecoes. Rough sanded new work with 60 then 120 grit; transition mostly okay with just a few low spots to fill in. Reinstalled lower and upper cowl onto aircraft. Marked prop hub trim line with 3D printed guide to maintain 0.125" clearance

between hub and cowl. Marked areas on upper cowl that need edge extension then removed upper cowl and sanded edge for micro. Attached aluminum scrap to backside of upper cowl and used popsicle sticks to help keep edges clean. Applied micro to rear edge of upper cowl.



Lower cowl aft edge sanded



Marking prop hub clearance with 3D printed spacer



Micro added to aft edge of upper cowl

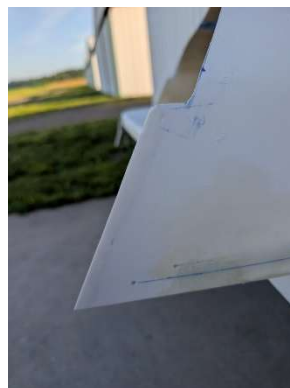
Cowl Fiberglass Work – Part 7

July 15, 2026 | Hours Worked: 2.35

Rough sanded aft edge of upper cowl then pinned into place on fuselage. Further sanded cowl on fuselage to get spacing correct. Removed upper cowl and sanded transition line with 120 grit. Removed lower cowl to trim prop hub area and prep a few small spots for epoxy. Reinstalled cowls and secured into place. Prepped upper and lower cowl for epoxy and used stiff micro mixture to fill low spots and patch miscellaneous holes and scuffs on both upper and lower cowl.



Sanding aft edges of upper cowl on aircraft



Transition area sanded



Adding micro to last couple spots



Using micro to fill low spots on
new work

Cowl Fiberglass Work – Part 8

July 18, 2026 | Hours Worked: 1.41

Removed upper and lower cowls from fuselage and removed packing tape from fuselage. Rough sanded new micro; most spots very close to being done with fiberglass but a couple of spots needed more filler. Leaving cowls off of aircraft, mixed another batch of stiff micro and filled the couple of low spots in both the upper and lower cowls.



More rough sanding



More micro applied to low
spots

Cowl Fiberglass Work – Part 9

July 24, 2026 | Hours Worked: 2.83

Rough sanded micro on upper cowl then final sanded; upper cowl should be finished with most micro work. Added micro to two low spots on lower cowl and let micro set. Fine sanded the two spots on the

lower cowl with 120 grit; finally micro work should be finished. Laid out side exhaust vents onto lower cowl then pilot drilled and clecoed side vents. Fine tuned openings with rotary tool to clean up edges then updrilled side vent rivet holes. I am electing to rivet side vents to lower cowl instead of epoxying them to increase strength of bond. Attached lower cowl to fuselage followed by upper cowl. All in all, fitment of upper and lower cowl looks good and is ready for final touches.



Sanding micro on upper cowl



Adding micro to low spots on lower cowl



Lower cowl aft edge complete



Pilot drilled and clecoed side exhaust vents



Side vents updrilled



Upper and lower cowl fit onto fuselage

Cowl Nutplates and Oil Door Fabrication

July 29, 2026 | Hours Worked: 4.49

Parts Used: AN3-4A, AN365-1032A, AN960-10, K1000-8

Updrilled cowl shelf, lower cowl, and upper cowl, and drilled and riveted nut plates onto cowl shelf and lower cowl. Temporarily installed upper cowl onto aircraft with screws to verify alignment and fitment; checks good. Located oil dipstick with flashlight and marked location of oil door on upper cowl. Removed upper cowl and cut rough opening. Made oil door out of scrap aluminum and cut piano hinge for attachment. Pilot drilled and clecoed hinge to oil door and cowl to check fitment. Made

0.025" spacer to go under hinge in cowl to hold door closer to cowl. Updrilled holes and riveted hinge halves to cowl and oil door. Verified operation then drilled pilot hole for SkyBolt fastener. Will install after paint. Made engine preheat and optimize charger mount plate out of scrap aluminum and attached it to RH cowl exhaust outlet lip with AN3 hardware. Secured plug and charging port to mount plate with Adel clamps.



Nutplates installed in upper cowl shelf



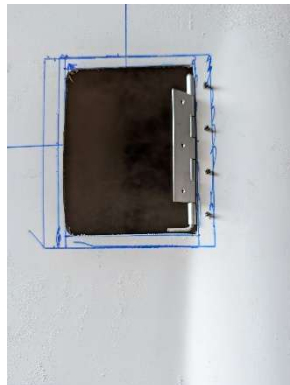
Nutplates installed in lower cowl



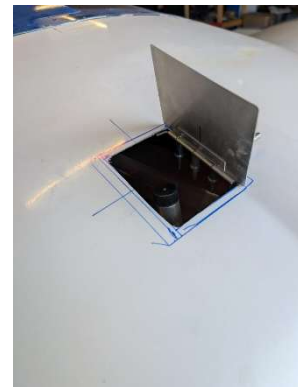
Checking cowl fitment with permanent fasteners



Locating dipstick with flashlight



Oil door opening cut and hinge clecoed



Testing oil door location



Spacer below cowl hinge half



Oil door riveted

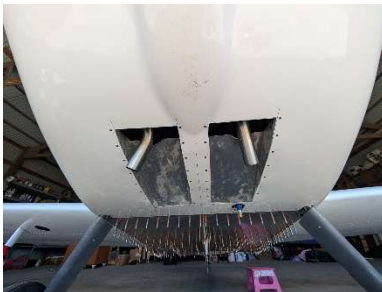
Preheat and battery charger
cord mount in cowl exhaust
scoop

Lower Cowl Rivets

August 3, 2026 | Hours Worked: 1.10

Parts Used: SNB-P16-04, SNB-P16-05, SNB-P16-06L, SNB-P16-06R

Riveted cowl side vents, exhaust tunnels, and lower cowl hinge halves to lower cowl.

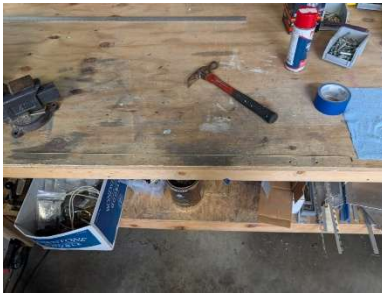
Exhaust tunnel and lower hinge
half rivetedRH hinge half and cowl vent
rivetedLH hinge half and cowl vent
riveted

Oil Door Installation

August 13, 2026 | Hours Worked: 0.67

Parts Used: SK2600FW

Remade lower cowl hinge pin from piano hinge pin stock. Drilled mounting holes and installed Camlock receptacle in upper cowl. Installed Camlock stud into oil door and tested oil door latching; ops check good.



New lower cowl pin created



Receptacle installed into upper cowl



Oil door installation complete

Final Cowling Installation

August 22, 2026 | Hours Worked: 1.17

Reinstalled newly painted lower cowling then reinstalled exhaust pipes. Used exhaust spring hooks through the lower exhaust tunnels to reattach exhaust springs which worked pretty good. Remade preheat and battery charger plug mount out of scrap aluminum to better align plugs with cowl vent opening. Reinstalled newly painted top cowl and inserted all cowl screws. Double checked prop clearance; ops check good. Cowl now complete!



Lower cowl reinstalled



Exhaust pipes reinstalled

New plug bracket
manufactured

Upper cowl reinstalled

SNB-P10: Engine Mount and Installation

Engine Mount Installation

January 17, 2025 | Hours Worked: 0.33

Parts Used: AN365-524A, AN5-32A, AN5-33A, AN960-516, SNB-P21-02

Measured required bolt hole lengths which differed from plans. Used AN4-33A bolts for lower holes and AN4-32A bolts for upper holes. Inserted bolts into engine mount blocks then positioned mount on bolts. Torqued bolts to spec then applied torque seal.



Motor mount bolted onto
airframe



Marker paint added to bolts

SNB-P01: Engine Installation

Initial Engine Mounting

October 30, 2025 | Hours Worked: 0.90

Parts Used: ACV-J01-10

Began process of mounting engine to determine firewall location of other items by using engine hoist to lift engine off of table and onto airframe. Placed ACV-J01-10 engine shock mounts onto engine mount then maneuvered engine onto airframe. Used bolt guides that came with engine to secure engine to airframe. Measurements for the AN4-51 bolts for engine mount did not account for rubber compression and required approximately 7 washers each to prevent nut from bottoming out; will replace with proper sized bolts in future. Started by mounting engine without spacers; will measure prop hub location later on to see if spacers on bottom mounts will be needed.



Placing engine using engine
hoist



Engine temporarily mounted



Engine temporarily mounted



Engine mount detail with temporary washers

Engine Hardware Replacement

November 6, 2025 | Hours Worked: 0.35

Parts Used: AN363-428, AN4-46A, AN960-416

Replaced temporary engine mount hardware (too long) with properly sized AN4-46A bolts and AN363 nuts.



Engine mount hardware replaced with proper size

Thrust Line Measurement

February 9, 2026 | Hours Worked: 0.40

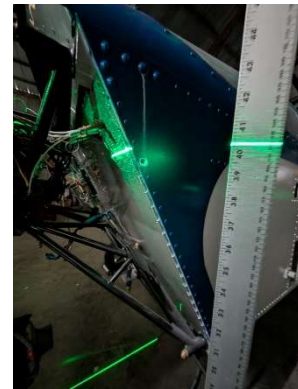
Verified engine alignment before moving forward by leveling fuselage with saw horse under tail and setting up laser level through center of crank. Measured bottom front corner of fuselage at 22.75" from floor and center of crank as 40.25" from floor leaving 17.5" from thrust line to bottom of fuselage; right on spec.



Setting up fuselage for measurement



Bottom of fuselage measurement



Thrust line measurement



Setting up laser level

Engine Installation – Part 1

February 10, 2026 | Hours Worked: 3.40

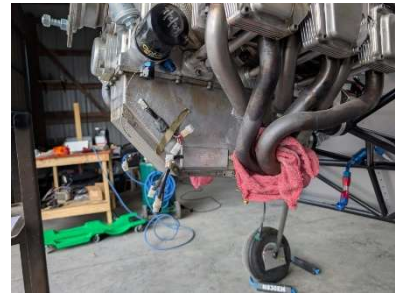
Continued working on Sonex FWF manual for the Jabiru by marking and trimming cooling fins on cylinder #1. In lieu of further trimming cylinder fins to fit spark plug CHT ring sensors, will opt to use #8 ring terminal sensors for easier access. Removed existing baffling from front of engine and old oil cooler. Measured oil pan cooling fins and they should not need to be trimmed. Removed fuel pump and installed fuel pump block off plate with red high-temp RTV. Located air filter assembly on intake side of AeroInjector and marked mounting hole location. Updrilled air filter mounting hole and tapped for AN3 hardware. Disassembled AeroInjector to insert throttle cable segment that will run from carb to throttle bell crank. Mounted AeroInjector and air filter assembly to engine intake.



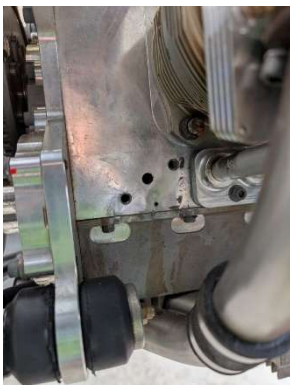
Marked #1 cooling fins for trimming



Cooling fins trimmed



Old oil cooler and front baffling removed



Fuel pump removed



Block off plate installed



Air filter assembly mounting hole drilled and tapped



Throttle cable installed

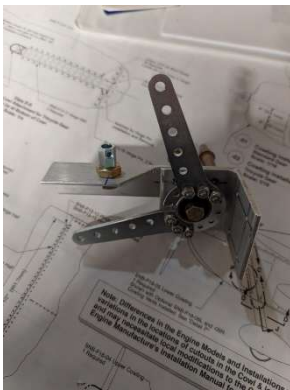


AerolInjector and air filter mounted

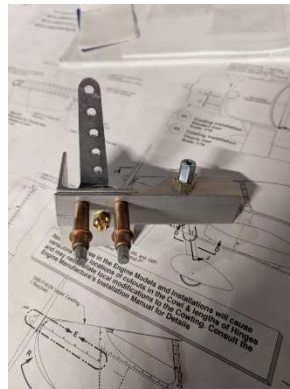
Throttle Bell Crank – Part 1

February 11, 2026 | Hours Worked: 1.54

Because we are planning to use a traditional push-pull throttle (instead of a Sonex throttle quadrant) with the AeroInjector, we needed a way to reverse the throttle direction. Assembled throttle bell crank and created mounting bracket from scrap 2" and 1" aluminum angle. Cannibalized cable parts from spare Sonex throttle components. Will need to final rivet pieces together once bracket is located and throttle cable is set.



Test fit of throttle bell crank



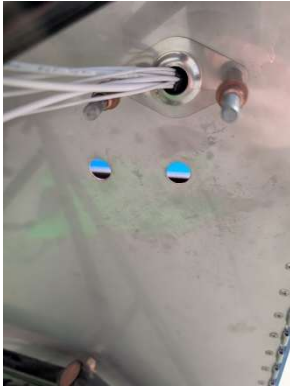
Test fit of throttle bell crank

Throttle Bell Crank – Part 2

February 12, 2026 | Hours Worked: 2.15

Parts Used: 05-16210, 05-16250, 5501523, A-820-BL-0480, AN363-428, AN4-7A, AN960-416

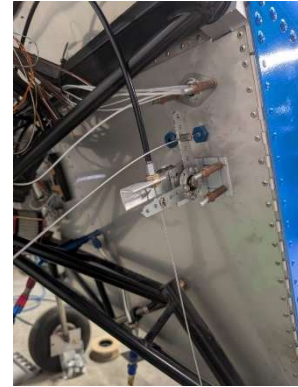
Installed throttle cable in center panel area. Located throttle and mixture cable pass-through locations on firewall and prepared holes for cable bulkheads. Installed both cable safes. Located throttle bellcrank assembly based on throttle cable pass through then transferred mounting holes onto firewall. Cleaned up bellcrank assembly then riveted pieces together and to firewall. Tested cable attachment locations then trimmed both throttle cables and secured components to bell crank. Still need to add one cable stop to throttle control cable. Tested throttle action of setup which went well.



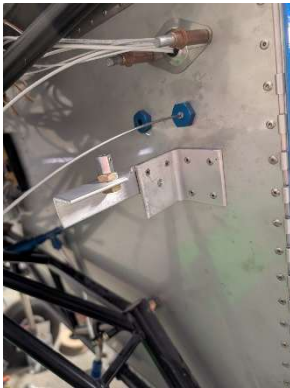
Preparing cable bulkhead holes



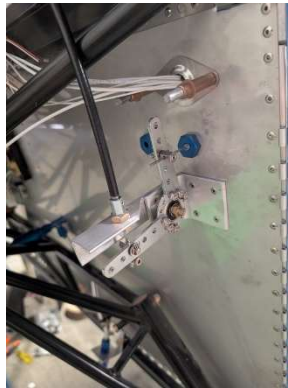
Cable bulkheads installed



Testing throttle bellcrank location and cable lengths



Bell crank mount riveted



Throttle system completed

Mixture Cable Install

February 18, 2026 | Hours Worked: 3.80

Parts Used: 960-10, A-790-20-0840, ACV-C10-30, AeroInjector, AN3-5A, AN365-1032A, AN525-10R8

Installed mixture cable into center panel section and routed cable through previously installed cable safe. Measured out approximate length and removed inner cable from jacket (making sure to carefully catch ball in cable mechanism). Trimmed outer jacket then upsized cable hole in AeroInjector to 1/4". Installed AeroInjector back onto back side of motor and ran throttle and mixture cables back. Trimmed mixture cable to generate 90 degrees of rotation on the fuel lever per the manual. Ops checked both controls. Installed trim knob onto center section of panel; will secure trim cable once side panels are in place. Continued working on engine install checklist by removing the front lower flange of the oil cooler to clear the cowling. Made oil cooler mounts out of aluminum angle and bolted to the back of the oil cooler. Secured oil cooler baffle to top mount screws.



Mixture cable installed



Mixture cable mount hole enlarged in AeroInjector



Mixture cable installed in AeroInjector. Idle cutoff position



Full rich position



Trim wheel installed



Control cable routing



Bottom front tab removed from oil cooler



Oil cooler brackets created



Oil cooler brackets installed



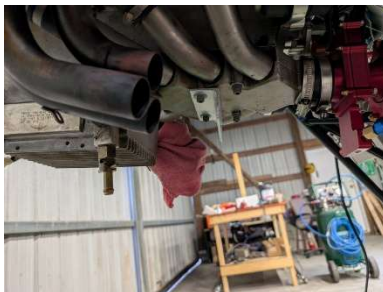
Oil cooler baffling installed

Oil Cooler and Separator Installation

February 23, 2026 | Hours Worked: 4.70

Parts Used: 8000075 [16027], ACV-S03-01, AN3-4A, AN3-5A, AN365-1032A, AN960-10, SUM-220652, SUM-220687, SUM-220690, SUM-230620, SUM-G1488B, VPE-11238

Mounted oil cooler bracket onto bottom side of intake and secured bolts with Loctite 242. Temporarily mounted oil cooler to engine then marked areas of baffling to remove for block heater and oil drain. Installed AN fittings into top of oil cooler. Made oil cooler hoses and routed them from oil filter housing to oil cooler. Secured long hose with Adel clamp. Mounted oil separator on bottom right section of engine mount with Adel clamps. Installed plug on bottom of separator and AN elbow on top with stainless steel ball for aerobatics. Ran 1/2" ID rubber hose from dipstick to oil separator and secured to engine mount with Adel clamps.



Oil cooler bracket mounted



Oil cooler baffling notched



AN fittings installed in oil cooler



Oil cooler and baffling
mounted



Oil cooler and baffling
mounted



Oil cooler hose assembled



Oil cooler hose #1 installed



Oil cooler hose #2 installed



Oil cooler hose #2 installed



Oil separator mounted



Oil separator line installed



Oil separator line installed

Engine Baffles – Part 1

February 25, 2026 | Hours Worked: 4.27

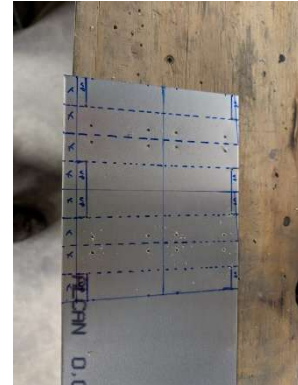
Crimped new 4 gauge starter cable onto cut portion with heat sink. Installed starter motor onto engine and ran cable down the oil breather line to starter solenoid. Briefly checked starter function. Created 4 intercylinder baffle plates based on forum recommendations and hung them underneath cylinders with safety wire and welding rod. Assembled right and left cylinder baffles and riveted together. Needed to trim forward section of LH baffle by about 1/4" to clear oil filter. Temporarily installed baffles onto cylinders for fit check with cowl (once completed).



New starter cable crimped onto old cutoff



Starter motor installed and wire run along breather tube



Flat stock for intercylinder baffles



Baffles cut, bent, and drilled



Baffles hung with welding rod



Bottom view of baffles



Baffles updrilled and clecoed



Upper baffles riveted



Upper baffles fit



Upper baffles fit

Engine Baffles – Part 2

April 22, 2026 | Hours Worked: 2.27

Parts Used: 05-00810

Installed rubber baffle sections onto engine cylinder baffles with AAP rivets. Test fit baffles back onto engine and checked clearances. Installed spark plug wire grommets onto spark plug harnesses.



Cutting and riveting rubber baffle material



Test fitting cylinder baffles



Spark plug grommet installed on harness

Engine Sensor Installation

April 23, 2026 | Hours Worked: 4.95

Parts Used: 05-00810, 100405-002, 102556-000

Installed rubber baffle material onto oil cooler duct. Installed EGT and CHT sensors onto engine and completed FWF wiring harness routing (other than oil pan heater). Verified temp probe operation with SkyView system then secured wires and routing in engine compartment. Secured throttle and mixture cables to engine mount using Adel clamps and started mapping sensors and gauge layout on PFD.



Throttle and mixture cables secured



Oil cooler baffling installed



RH CHT and EGT sensors installed and wiring cleaned up



LH CHT and EGT sensors installed and wiring cleaned up



Mapping sensors and gauge layout on PFD

Initial Prop Installation

June 1, 2026 | Hours Worked: 1.44

Parts Used: 4689084, 54/60PK [8731P54AT60LK], AN363-624, AN6-44A, AN960-616, SNX-P20-04

Began initial prop installation by enlarging holes in Jabiru prop bushings from 1/4" to 3/8" using drill press. Verified holes in prop did not need any reaming but needed to ream holes in spinner slightly to allow for smooth bolt installation. Bolted prop and spinner to prop flange using AN6 hardware and AN363 lock nuts. Torqued prop bolts to 210 in-lbs per Prince instructions. Verified prop runout of 1/32" by using paint stir stick secured to space heater on the ground.



Enlarging holes in prop bushings



Prop bushings drilled for AN6 hardware



Prop and spinner bolted to engine



Prop and spinner installed



Checking blade tracking

First Engine Run Prep

June 15, 2026 | Hours Worked: 1.22

Parts Used: 4A402A0D, 4A403A0D, D9EA, NAPA 1394, PE01094

Began preparing engine for first run by draining preservation oil from engine and replacing 3.7 quarts of Shell 15W-50 oil. Replaced oil filter with NAPA 1394 Gold oil filter. Removed and replaced all 12 NGK D9EA spark plugs and set gap at 0.023". Torqued rocker cover bolts to spec. Installed Sonex exhaust pipes onto engine with new springs. Engine ready for first test run.



Exhaust pipes installed

Exhaust Tunnels – Part 1

July 10, 2026 | Hours Worked: 1.32

Bent exhaust tunnels and outlet lips from firewall forward kit blanks. Made flange tool out of scrap phenolic. Bent tunnel sides using bending brake then bent mounting flanges using homemade flange tool. Aligned exhaust tunnels onto newly cut cowl openings and pilot drilled and clecoed exhaust tunnels to lower cowl. Tried to install lower cowl back onto airframe to check fitment but discovered interference between oil separator and RH exhaust tunnel. Will need to raise oil separator by an inch or so.



Exhaust outlet lips bent

Flange tool out of scrap
phenolic

Exhaust tunnels bent



Exhaust tunnels clecoed to lower cowl



Interference between oil separator and exhaust tunnel

Oil Separator Relocation

July 13, 2026 | Hours Worked: 1.15

Parts Used: AN3-5A, AN365-1032A, AN960-10

Due to exhaust tunnel interference, removed oil separator from firewall and fabricated bracket out of scrap aluminum angle to move cannister up about 1.25". Reinstalled oil separator and reconnected vent line.



Oil separator moved up with new bracket



Oil separator now clears exhaust tunnel

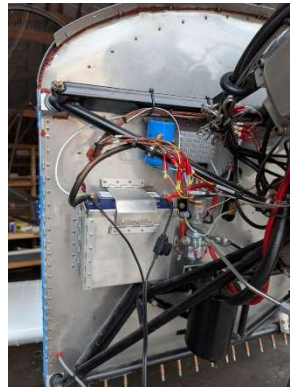
Firewall Sealant and Engine Preheat Wiring

July 27, 2026 | Hours Worked: 2.07

Removed wire grommet covers from firewall for fear of wire chaffing and riveted open holes closed. Riveted upper cowl shelf to windshield skirt. Applied 3M Fire Barrier Sealant CP 25WB+ to gaps in firewall around motor mounts and on seam between windshield skirt and upper firewall. Also applied sealant to wire bundles, brake lines, and smoke fluid line penetrations. Slightly trimmed oil cooler baffle for better clearance with oil pan. Placed heat shrink around oil temp probe to prevent grounding out with baffle. Routed preheat wires underneath oil pan and fixed Molex connectors. Secured ground wire to cooling fin then routed preheat plug along oil cooler lines then out near RH cowl exhaust area. Plugged preheat system in and monitored oil temps; ops check good.



Upper cowl shelf riveted



Firewall sealant on RH side



Firewall sealant on LH side



Oil temp probe protected



Preheat system wired

Engine Baffle Installation – Part 3

July 28, 2026 | Hours Worked: 7.57

Parts Used: AN365-632A, AN526-632R4

Removed AeroInjector needle carrier and replaced stock #2 needle with recommended #3 needle. Reinstalled needle carrier and set needle setting per manual by marking start of taper and aligning it with top of throttle slide. Reinstalled set screw and dust cap. Safety wired AeroInjector to engine via intake pipes. Decided to modify baffles to make maintenance easier by adding removable side. Cut piano hinges and laid out hinges on cut locations. Pilot drilled and clecoes hinges to baffle then cut side panel out. Updrilled hinges then riveted hinges to engine baffle. Temporarily installed baffle onto engine to check fitment; good check. Repeated process for RH side. Trimmed exhaust tunnels slightly to better clearance exhaust pipes before removing both tail pipes. Installed lower cowl onto aircraft then reinstalled tail pipes. Lower cowl is not able to be fitted with tail pipes installed so they will need to be installed after cowl is fit from now on. Created baffle plate for LH side out of scrap aluminum and attached to baffle via #6 screws and lock nuts. Opted to not make baffle plate for RH side for now due to very small area between front cylinder and cowl opening. Routed spark plug wires and CHT probes through baffle openings and completed connections. Installed grommets in baffles.



#3 AeroInjector needle installed in carrier



Setting needle height via sharpie mark



AeroInjector safety wired



Adding piano hinges to engine baffle



RH baffle installed



RH baffle access panel open



LH baffle installed



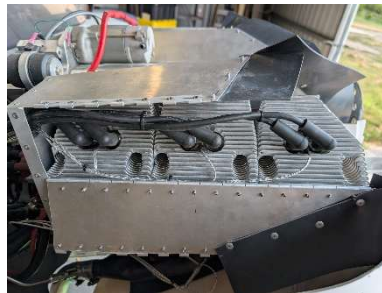
Exhaust tunnels trimmed



LH baffle plate cut and bent



LH baffle plate installed



Spark plug wires and CHT probes installed



Baffles complete!

Temporary Prop Installation

August 3, 2026 | Hours Worked: 0.97

Parts Used: 04-00217, AN526-832R14, AN526C-832R8

Temporarily reinstalled prop and spinner for engine test runs. Installed upper cowl and verified clearance with prop.



Prop reinstalled for test runs

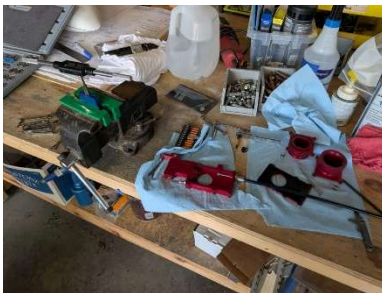


Upper cowl screwed into place

AerolInjector Tuning – Part 1

August 4, 2026 | Hours Worked: 4.02

Began process of tuning the AerolInjector. Immediately had issues getting engine started and struggled to keep it idling normally. The partial firing seems to indicate a too-rich condition with the #3 needle. Upon trying to adjust the needle, there were issues trying to turn the needle clockwise to lean the mixture. Decided to remove cowl and AerolInjector for inspection. Upon disassembly, discovered that the needle carrier was not able to be threaded all the way down in the slide. Cleaned out slide threads with a tap and needle was able to be adjusted through the full range. Reassembled AerolInjector and during installation, discovered bellcrank end of throttle cable was frayed and restricting throttle slide movement. Will need to replace.



AerolInjector disassembled and
slide threads cleaned up



AerolInjector reassembled



Throttle cable frayed and
needs replacement

AerolInjector Reinstallation

August 13, 2026 | Hours Worked: 2.16

Parts Used: ACV-C10-33, ACV-Q01-43, AN363-624, AN6-44A, AN960-616

Reassembled AerolInjector with new throttle cable and 2.5 needle. Reinstalled AerolInjector onto engine and attached controls. Reinstalled safety wire and attached new air filter element. Used safety wire to temporarily hold up oil cooler baffle for engine runs. Finally installed prop and spinner with new AN6 hardware. Finally installed exhaust pipes in preparation to continue AerolInjector tuning.



AerolInjector reassembled and
2.5 needle installed



Throttle cable reinstalled and
cable nuts tightened



Mixture cable installed



Air filter installed and
AerolInjector safety wired



Oil cooler baffle temporarily
supported



Prop and spinner installed



Exhaust pipes installed

AerolInjector Tuning – Part 2

August 21, 2026 | Hours Worked: 0.87

Ran engine after installing #2.5 AerolInjector needle and re-tapping threads in needle carrier. Got much better results with EGT spread between full rich EGT and peak stumbling coming in around 120 degrees. Engine parameters seemed much more consistent and stabilized and controls responded as

predicted. Electing to leave mixture needle in designated spot for now and will re-evaluate during flight testing. Engine installation now complete!



Post-run picture of a well-tuned engine

SNB-G01: Fuel System Installation

Fuel Tank Prep – Part 1

March 12, 2025 | Hours Worked: 0.97

Parts Used: SNX-G01-20, SNX-G01-30

Located main drain hole in fuel tank and drilled opening with spade bit. Deburred edges with file and sandpaper then used wire trick to install “oops” fitting. Drilled fuel sender hole two inches over with step bit and deburred hole. Installed fuel sender oops fitting into tank.



Main drain fitting fit



Fuel sender fitting installed



Main fuel drain hole cut



Used wire to fish fitting into place



Fuel sender hole drilled



Tank mocked up into place

Fuel Tank Prep – Part 2

March 13, 2025 | Hours Worked: 1.33

Parts Used: SNX-G01-20

Drilled hole in fuel tank for fuel vent "oops" fitting then deburred/cleaned. Temporarily installed fuel tank straps and fuel tank then marked location of fuel tank vent on glareshield with strap duplicator. Removed fuel tank and drilled slightly oversized clearance hole in glareshield. Rinsed tank thoroughly with water then installed temporary brass plugs in bottom fuel tank fittings. Filled tank partially with water and left on workbench to test for leaks.



Installed fuel tank vent fitting



Hole cut in glareshield for fuel tank vent



Fuel tank test fit



Testing fuel tank fittings for leaks

Fuel Tank Installation

March 27, 2025 | Hours Worked: 2.30

Parts Used: AN3-10A, AN3-14A, AN3-7A, AN365-1032A, AN960-10, SNB-F07-08, SNB-G01-11, SNB-G02-01

Rinsed tank out with water to clear out debris from inside. Re-fit tank to fuselage and trimmed fuel bay area slightly more to accommodate vent fitting. Clecoed tank stop into place and confirmed tank was sitting full forward. Installed fuel tank straps and lightly tightened straps until they were touching the tank fully. Used AN3-7A bolt on front straps and AN3-10A bolt on back. Updrilled, deburred, and riveted tank stop to glareshield.



Rinsing out fuel tank



Trimmed glareshield so fuel vent fitting would fit better



Tank stop angle clecoed into place



Fuel tank straps tightened

Fuel tank stop riveted to
glareshield

Fuel System Plumbing – Part 1

March 28, 2025 | Hours Worked: 3.53

Parts Used: 05-12627, 05-17700, FT-60 [306059], SUM-220671, SUM-230620, VPE-11331

Began plumbing the fuel system starting at the fuel tank. Used liquid teflon on all NPT threads. Made short run of fuel hose to go to bulkhead fitting. Had success creating fuel line by cutting line with cable snips and using zip tie around end to prevent jacket fraying. Marked firewall pass through location: will need to verify before drilling. Hose currently too long so will need to trim before final installation.



AN-6 fuel hose created

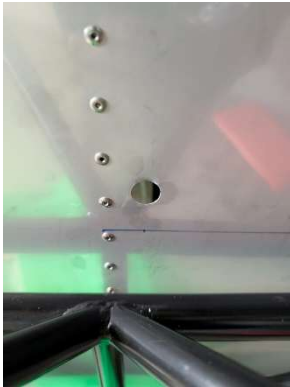
Fuel system plumbing in
progressBulkhead fitting marked per
plans

Fuel System Plumbing – Part 2

April 3, 2025 | Hours Worked: 3.80

Parts Used: FuelProbe, RAU-2100BLK, RAU-2118

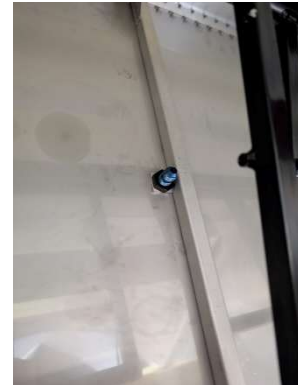
Located new bulkhead hole one inch above plans measurement to ensure continuous fuel flow. Updrilled bulkhead hole to 9/16". Created spacer from 1/8" aluminum scrap to go between bulkhead tee fitting and nut to keep assembly from rotating. Tried to make flex hose to connect fuel system but couldn't get the geometry correct due to the short run. Will make solid aluminum tube connection later. Trimmed Princeton fuel probe according to Onex instructions to fit B-Model tank; suspect probe was originally for the legacy tank. Used tube cutter to trim aluminum case and side snips to trim copper rod. Installed fuel probe into "oops" fitting with liquid Teflon. Will leak test once fuel system in complete.



Bulkhead pass-through hole drilled



Spacer created



Inside view of bulkhead fitting



Outside view of bulkhead fitting



Original fuel probe length



Fuel probe trimmed



Fuel probe installed

Fuel System Plumbing – Part 3

April 10, 2025 | Hours Worked: 1.98

Parts Used: AN842-4D, SUM-220633-2, SUM-220634-2, SUM-220647, SUM-G2538X, VPE-11331

Installed 45 degree and AN fitting after fuel cube using Teflon paste. Cut a piece of solid aluminum fuel line to length and used tubing bender to bend into shape. Installed tube nut hardware on hardline and used flaring tool to flare ends of hardline. Installed hardline in between fuel flow cube and bulkhead fitting. Installed AN842 fitting into fuel vent port on top of tank using Teflon paste.



Installed another 45 and AN
fitting in fuel run



Small hardline bent



Flaring ends of hardline



Hardline complete



Hardline installed between tank and bulkhead fitting



Fuel vent fitting installed

Firewall Forward Fuel System

February 9, 2026 | Hours Worked: 3.20

Parts Used: 05-04046, AN3-5A, AN365-1032A, AN960-10, HSE-910-04-1, RAU-2100BLK, RUS-612170, SUM-220633-2, SUM-220634-2, SUM-220647, SUM-220686, SUM-230141, SUM-230620, SUM-G2538X

Began working on firewall-forward fuel system by bending solid fuel line for drain branch. Ran -6 fuel line behind upper part of engine mount then bent line to come forward of bottom part. Created a drain cock mount out of scrap aluminum angle and secured drain cock and mount to engine mount with Adel clamps. Added AN fittings to each end of drain line then prepared ends and secured drain line with an Adel clamp. Made small fuel line to go in between fuel filter and AeroInjector then installed fuel filter and test fit braided line. Will leak test before adding fire sleeve to firewall forward portion of fuel system.



Bending and test fitting drain line



Drain cock assembly attached to mount



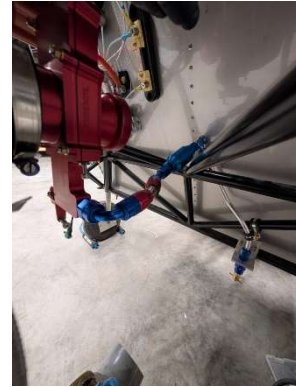
Drain cock assembly mounted



Drain line complete (minus leak testing)



Short fuel line between fuel filter and AeroInjector



Firewall
forward fuel system in place

Fuel Leak Testing and Vent Installation

June 4, 2026 | Hours Worked: 5.29

Parts Used: SK2600FW, SUM-220633-2, SUM-220634-2, SUM-G2538X

Added fuel to tank in order to test firewall forward side of fuel system. Upon opening fuel shutoff valve, discovered that hardline to system drain was leaking from both AN fittings. Upon removing the line, discovered that the flare fittings were not made properly. Remade hard line and installed new fittings. Leak checked firewall forward portion of fuel system; ops check good after tightening a few lines. Installed SkyBolt hardware onto fuel door and removed Southco fastener from windshield skirt to install SkyBolt receptacle. Worked on vent line by drilling hole in forward fuselage floor just outside of the front left motor mount. Bent a hard vent line from spare steel brake line and installed it to the left main gear leg with zip ties temporarily; will secure better in the future once gear leg fairing is fitted. Cut rubber vent line in cockpit and installed it onto the hard line using a hose clamp. Secured fuel vent on LH forward fuselage wall to keep it from interfering with the LH rudder pedal.



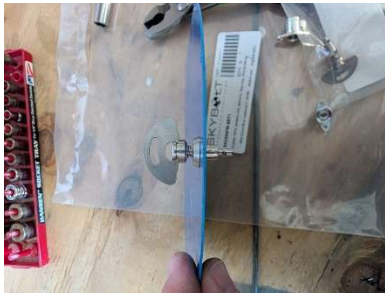
Improper flare on old fuel line



New fuel line cut and bent



New fuel line installed



Adding SkyBolt fastener to fuel door



SkyBolt receptacle installed in windshield skirt



Fuel door installed



Hard fuel vent line cut and bent



Fuel vent routed and connected inside cockpit



Fuel vent temporarily attached to LH gear leg

Fuel Vent Rework

July 15, 2026 | Hours Worked: 0.82

Removed existing steel fuel vent to rework due to poor fitment. Used 1/4" OD aluminum tubing instead as it is easier to work and bend. Essentially followed same path as previous vent with better routing. Added Adel clamp (temporarily) along fuselage floor to help secure hard vent line. Will reinstall once floor goes on permanently.



New fuel vent line connected
to fuel tank breather



Fuel vent routed through floor
and along LH gear leg

Fuel Line Insulation

July 27, 2026 | Hours Worked: 0.64

Added fire sleeve insulation to fuel lines forward of firewall. Used smaller size (5/8") for hard lines and flex hose and separate larger size (1.5") for fuel filter. Secured sleeves with zip ties. Fuel system complete!



Fuel lines insulated



Fuel pump insulated

Smoke System

Smoke System Plumbing

July 27, 2026 | Hours Worked: 2.92

Parts Used: 1901K14, 32885K143, 4464K212, 52215K425, 52215K441, 52315K18, 7397N19

Began smoke system installation by drilling 5/8" holes in exhaust pipes as far up as possible. Cut stainless steel mount plates out of firewall scrap and drilled 1/2" hole in center of plates. Assembled sprayers with plates using machine bushings to tighten sprayers to plates. Applied Permatex exhaust sealant underneath sprayer plates and secured sprayers to exhaust pipes using worm clamps then mounted exhaust pipes to engine. Drilled 3/8" hole through bottom left of firewall and ran PTFE smoke fluid tube along LH side of fuselage then around to rear spar carry-through. Secured tube with zip ties and added protective rubber hose over area by rudder pedals. Made fluid tube cap out of spare plumbing parts to prevent exhaust gas from entering cockpit when smoke tank is not installed. Bent and cut stainless steel tubes that will transition flex line to sprayers and help dissipate heat. Attached stainless tubes via compression fittings. Mounted divider tee on LH side of engine mount and connected fluid tubes and sprayers.



Holes drilled in exhaust pipes



Mount plates cut and drilled out of stainless steel



Sprayers assembled



Sprayers attached to exhaust with worm clamps and exhaust sealant



Nozzle inside of exhaust pipe



Fluid line cap



Fluid line routing through firewall



Fluid line routed through fuselage



LH side plumbed



RH side plumbed

Smoke Fluid Tank

August 25, 2026 | Hours Worked: 2.19

Parts Used: AN3-14A, AN3-5A, AN365-1032A, AN960-10

Began plumbing the smoke fluid tank by creating a component mount out of scrap aluminum angle and bolting it to the smoke tank handle that way no tank penetrations needed to be made. Mounted the fluid pump, solenoid valve, and relay on the mount with Adel clamps. Attached fluid lines from tank to pump and pump to solenoid valve. Tested out the ground trigger wiring system with the relay on the bench. Connected wires together using solder sleeves then added DT connector at the end of the harness that will plug into the accessory plug located on top of the rear spar carry through. Placed the smoke tank in the baggage compartment and ops checked smoke switches on control sticks; ops check good. Smoke system now complete!



Component mount bolted onto tank handle



Smoke system components mounted to smoke tank



Wiring complete

Section 6: Landing Gear

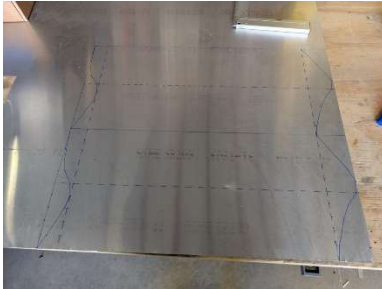
SNB-L06: Wheel Pants and Fairings

Gear Leg Fairings – Part 1

May 5, 2026 | Hours Worked: 4.80

Parts Used: 0.025 Sheet, SNB-L06-07L, SNB-L06-07R

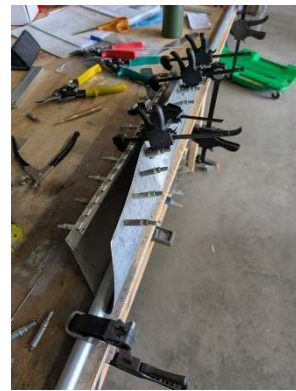
Fabricated gear leg fairings by transferring plan measurements to 0.025" aluminum sheet and cutting out fairing skins. Cut and pilot drilled hinge halves from P3 piano hinge stock. Clecoed hinges to fairing skins and bent skins into shape using conduit to help form leading edge radius. Pinned fairings into shape then annealed aluminum using a propane torch and sharpie markings to determine when the appropriate temperature was reached. Let fairings cool then removed center lugs of hinges and cut out some skin into the center trailing edge to enable fairings to use two separate pins rather than one long continuous pin. Disassembled fairings to deburr everything then riveted hinges onto fairing skin. Made hinge pins out of scrap stock and test fit fairings onto gear legs. Will mount in the future using Adel clamps rather than single pin method described in plans.



Gear leg fairing skins measured out onto sheet stock from plan dimensions



Fairing parts cut



Bending fairings around conduit



Marking bend for annealing process



Both fairings annealed



Center cutout for hinge pins



Gear leg fairings complete

Gear Leg Fairings – Part 2

July 2, 2026 | Hours Worked: 1.15

Parts Used: AN365-428A, AN525-416R8, SNB-L06-07L, SNB-L06-07R

Placed 1.125" Adel clamps around LH landing gear leg and marked approximate mounting hole position on gear leg fairing. Removed fairing and drilled mounting hole in fairing. Temporarily bolted fairing to landing gear leg to mark second mount hole location with Adel clamp. Removed fairing again to drill second mount hole and deburr holes. Installed LH gear fairing onto LH gear leg with Adel clamps and AN525 hardware. Routed brake line over clamp and removed fuel vent line for future replacement. Marked areas to trim for brake lines at bottom of fairing. Repeated process for RH side gear fairing.



LH gear fairing fitted to landing gear



Gear leg fairing bolted to Adel clamps



RH fairing installed

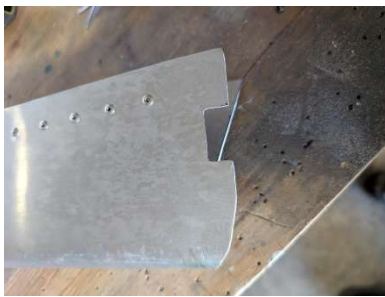


Gear leg fairings installed on gear legs

Gear Leg Fairings – Part 3

July 15, 2026 | Hours Worked: 1.33

Trimmed about 0.125" from both outside edges of gear leg fairings for better clearance of fuselage and wheel plates. Marked location for brake line notches and cut out space for brake lines. Attached both gear leg fairings to main gear and secured brake lines and fuel vent to main gear legs with zip ties. Rubber padding on Adel clamps should keep brake lines from rubbing too much.



Cutting notch in lower part of gear leg fairing for brake hardware



RH gear leg fairing installed



LH gear leg fairing installed

SNB-L05: Hydraulic Brake Installation

Brake System Assembly – Part 1

January 24, 2025 | Hours Worked: 2.73

Parts Used: ACV-B01-12, ACV-B01-13, ACV-B01-16, ACV-B01-20, ACV-B01-21, ACV-B01-25, ACV-B01-26, K1000-6, MS20392-3C39, MS24665-134

Prepped wheel pant mount plates by marking new holes and cut-outs. Drilled mount holes and used combination of files and rotary tool for brake line hardware cut outs. Riveted nutplates onto outside of plates for wheel pant hardware. Assembled brake bodies to brass hardware using Teflon paste. Verified alignment of parts then installed brake assemblies to axle using clevis pin and cotter pin. Finally, installed o rings onto brake pistons then pressed into body with C clamp.



Marking wheel pant mount plates



Brake fitting cutouts complete



Fittings attached to brake body using Teflon paste



Nutplates installed for wheel
Pant mounting



RH brake assembly mounted



LH brake assembly mounted

Brake System Assembly – Part 2

May 5, 2026 | Hours Worked: 1.72

Began plumbing brake system by drilling brake line pass throughs in firewall and installing rubber grommets. Routed left and right side brake lines from each wheel end to the tee located in on the forward fuselage floor. Secured brake lines with zip ties to lower fuselage cross member and gear legs.



Brake lines routed to calipers



Brake lines connected to center
tee fitting

Brake System Assembly – Part 3

May 6, 2026 | Hours Worked: 5.37

Parts Used: 0.125 Plate, 05-16210, A-1780-TH-0720, ACV-B01-10, ACV-B01-14, ACV-B01-18, ACV-B01-19, ACV-B01-26, ACV-Z01-88, AN3-4A, AN365-1032A, AN365-428A, AN365-524A, AN4-7A, AN5-17A, AN742-D3, AN960-10, AN960-416, AN960-516, SNB-F08-09

Manufactured master cylinder mount components out of aluminum sheet and angle stock. Because the B-Model plans do not have provisions for a center mounted brake lever, used "sport trainer" plan set from the legacy plans for part dimensions. Also substituted two 0.125" spacer plates on each side of the mounts rather than one 0.25" piece due to availability. Cut parts from stock and pilot drilled holes per plans. Mocked up everything together then made custom cable bracket to attach parking brake cable to. Updrilled brake ball valve handle to accept standard cable nut. After verifying part alignment, removed center square tube from forward fuselage floor and riveted master cylinder brackets and spacers with CCP-48 pull rivets. Reinstalled center tube onto forward fuselage floor then drilled and clecoed master cylinder brackets to floor. Attached fittings and plug to master cylinder with Teflon paste and installed master cylinder into bracket. Plumbed the final line from the ball valve to the brake tee and tightened all fittings. Installed parking brake cable on left side of panel and routed it to the custom cable bracket. Secured cable jacket with plane clamp and attached cable to ball valve with cable nut. Ops check good on parking brake cable. Wrapped brake handle with electrical tape for now and installed handle onto master cylinder; might re-design handle in future for better ergonomics. Removed tires and replaced brake puck seals with new o-rings due to previous installation error.



Master cylinder mount components cut



Enlarged hole in ball valve handle for cable nut



Testing out parking brake cable assembly



Master cylinder mount riveted to forward fuselage floor tube



Parking brake cable bracket



Master cylinder installed and main brake line plumbed



Parking brake cable installed
and routed



Master cylinder bracket
clecoed to forward fuselage
floor



Brake handle installed

Brake System Assembly – Part 4

May 9, 2026 | Hours Worked: 1.50

Began process of bleeding brakes using traditional pressure method but discovered half way through that tee fitting on cockpit floor was weeping slightly. Removed tubes from tee and installed new couplers on tube. Reattached tubes and tightened fittings by hand tightening compression nuts then further tightening fittings one rotation with a wrench. Applied parking brake and checked fittings for leaks; no leaks found. Brake system installation complete!



Brake system installation
complete

SNB-L03: Tail Wheel Installation

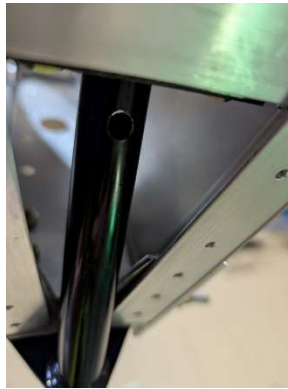
Tailwheel Installation – Part 1

January 25, 2025 | Hours Worked: 3.62

Drilled 1/4" hole in tail wheel spring using same method as landing gear legs. Updrilled bottom half of tail wheel mount bracket then through drilled entire assembly and installed hardware. Noticed a descent amount of slop between tail wheel spring and mount so will probably epoxy mount into hole in warmer weather. Measure distance between mount and tailwheel and determined spring rod was about 1/4" too long. Cut mount down to proper size using hack saw then reinstalled. Pilot drilled tail wheel assembly barrel then aligned tail wheel assembly to spring on ground, ensuring tail wheel was square. Clamped tail wheel to angles to ensure alignment then updrilled tailwheel and spring to 1/4"



Updrilling tail wheel spring with drill press



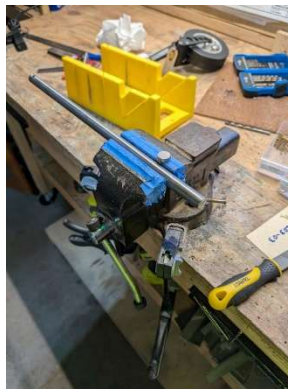
Updrilled bottom hole in tail wheel mount



Tail wheel spring mount bolt



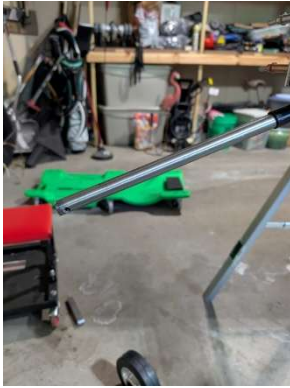
Pilot drilled tail wheel assembly



Cutting tail wheel spring



Assembly clamped together. Ready to drill



Tail wheel and spring updrilled



Tail wheel spring hardware installed. Shimmed length with washer each side of mount tube.

Tailwheel Installation – Part 2

January 26, 2025 | Hours Worked: 1.26

Parts Used: AN310-4, AN4-12, AN960-416, MS24665-132, SNX-L03-03, SNX-L03-26, SNX-L03-31

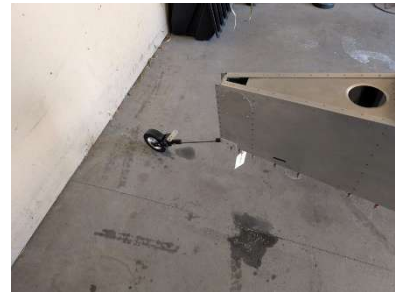
Deburred tail wheel and spring holes and installed AN4 hardware through tail wheel assembly. Reinstalled clecoes on aft fuselage floor and took off of saw horses. Rolling chassis complete!



Tail wheel assembly mounted



Verified squareness to ground



Fuselage off of saw horses



Rolling chassis

Tailwheel Installation – Part 3

May 20, 2026 | Hours Worked: 0.47

Parts Used: AN310-4, AN4-12, AN960-416, AnsonSteeringLinkage, MS24665-208

Epoxied tail spring rod into fuselage using 3M DP8407 metal epoxy to strengthen connection since rod had a little bit of play in tail spring mount bracket. Installed tail spring hardware. Upsized steering linkage rod holes in tail wheel assembly and rudder horn then installed Anson Engineering steering rod. Used torque seal on hardware.



Tail spring epoxied into place
and hardware installed



Anson Engineering steering
rod installed

SNB-L01: Main Gear Installation

Main Landing Gear Installation – Part 1

January 17, 2025 | Hours Worked: 3.87

Parts Used: AN365-428A, AN4-30A, AN960-416, SNX-L01-03

Started by setting up drill press to drill titanium legs. Opted to not trim gear legs and left the 1/8" longer than plans. Drilled main gear legs using slowest speed on drill press and 1/8" cobalt drill bit. After initial holes were drilled, updrilled holes to 1/4". Deburred and sanded main gear leg holes in motor mount then inserted gear legs. Cleaned up mount bolt holes with gear legs in place and final drilled. Used sacrificial AN4-30 bolts to clear holes then inserted final bolts. Snugged bolts then backed off 1/2 turn per plans and applied torque seal. Deburred axle holes then drilled #40 pilot holes in axles. Slipped axle alignment spacers onto axles then clamped straight angle across axle. Need to check axle height and verify toe in before drilling.



Main gear leg drilling setup



Updrilling main gear leg attach hole



Aluminum angle used to set axle toe in



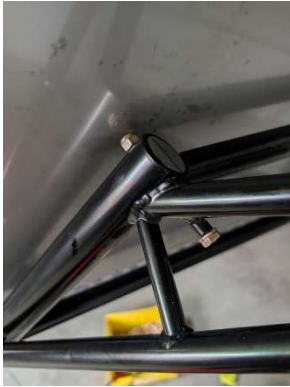
Axle toe in setup



Hole drilled through main gear leg



Gear leg hole drilled through



RH main gear leg bolt installed



Both main gear legs installed

Main Landing Gear Installation – Part 2

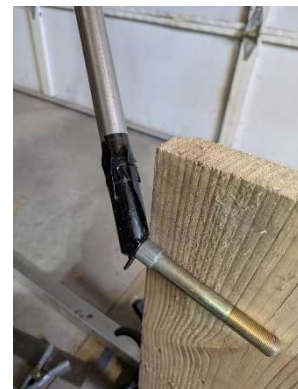
January 18, 2025 | Hours Worked: 3.79

Parts Used: SNX-L01-05

Leveled fuselage using wood blocks under tail. Clamped aluminum extrusion and spacers to axles and measured axle height from top of upper longerons. Began drilling RH axle. Realized part way through that toe in was not being measured from front of fuselage but a different angle; had to abandon hole. Did more research and changed squaring procedure by using aluminum angle and wood risers. Drilled new hole in RH axle at 45 degree angle from the original one and started with hand drill. Removed gear leg from fuselage and finished hole on drill press. After re-installing, realized hole was not drilled square and resulted in toe out condition on RH axle. Will need to scrap RH gear leg and axle and try again with new parts.



Fuselage leveled

New method of determining
toe inAxle toe in set and taped into
place



Drilling axle hole on drill press



RH axle hole misaligned

Main Wheel Assembly

January 19, 2025 | Hours Worked: 2.22

Parts Used: 1136, AB3D2 [8AB3D25124], ACV-B01-15, ACV-B01-17, ACV-B01-24, GL-5067B (10/30/2024), SNB-L01-09

Began prepping wheel assemblies by using large socket to fully set wheel bearing races into rim halves. Prepped tires and tubes by removing Schrader valve and applying talc to tire and tube. Assembled wheel assembly with new bolts from hydraulic brake kit and brake disk. Torqued wheel rim to 15 ft/lbs and inflated assembly to 30 psi to set bead. Ensured tube was not caught between wheel halves, re-installed Schrader valve, then inflated to 30 psi. Temporarily mounted tires to axles to ensure bearings were square. Visual check passed.



Bearing race pressed to proper depth



Wheel halves assembled and brake disk installed with new bolts



Tube and tire talced



Torqued wheel bolts and
setting bead



L01-09 wheel assemblies
complete

Main Landing Gear Installation – Part 3

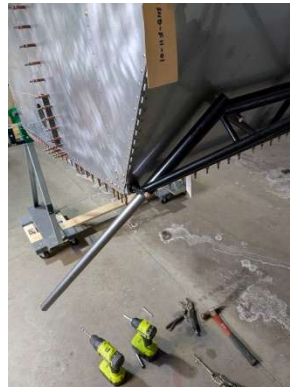
January 24, 2025 | Hours Worked: 4.64

Parts Used: AN365-428A, AN4-16A, AN4-30A, AN960-416, SNX-L01-03, SNX-L01-05

Drilled motor mount hole in new RH gear leg same as previous but used V block in drill press to ensure squareness. Deburred hole and attached new RH gear leg to fuselage with AN4-30A bolt. Drilled 1/8" pilot hole through new RH axle (one side only). Setup axle toe-in jig by clamping aluminum angle to the front of each axle with toe-in spacers and 1/4" of steel spacers. Leveled fuselage then setup laser level to project axle height. Leveled axles then clamped both axles to angle to establish toe-in on gear. Starting on the LH axle, clamped V block drill guide to axle housing then pilot drilled axle and gear leg with 1/8" cobalt bit. Upsized to 3/16" then temporarily held assembly together with AN3 hardware. Moved to RH side and repeated same procedure stopping multiple times to ensure rig had not moved. After verifying fit, final drilled RH then LH axles and gear legs to 1/4". Deburred all holes then installed axles with AN4 hardware and marked with torque seal. Verified toe in one more time before removing jigs.



Top hole in new RH gear leg



RH gear leg installed



Pilot drilling new RH axle



Laser level for setting axle height



Axle height set via laser level



V Block used to pilot drill gear legs and axles



Axle drilling complete!

Main Landing Gear Installation – Part 4

January 24, 2025 | Hours Worked: 0.80

Parts Used: AN310-12, SNB-L01-09

Packed wheel bearings with Aeroshell 5 grease then installed tires onto axles. Tightened nuts then backed off until slight drag felt. Going to put off drilling cotter pin holes in axles until brake system is completed. Removed saw horses and set down aircraft on the gear for the first time!



Wheels temporarily installed

Main Landing Gear Installation – Part 5

May 6, 2026 | Hours Worked: 1.02

Parts Used: MS24665-357

After replacing hydraulic brake o-rings, reset axle nut torque by tightening nut until wheel did not wobble and slight resistance was felt on wheel. Marked castle nut location on axle then drilled cotter pin holes using 5/32" drill bit, cylindrical drill guide, and drilling fluid. After drilling both axles, chased threads with axle nut to clean out holes and repacked wheel bearings. Reinstalled main wheels, torqued axle nuts, and installed cotter pins. Main gear assembly task complete!



Used drill guide to drill cotter pin holes



Cotter pin holes drilled



Cotter pins installed in axle nuts

Landing Gear Bolt Service Bulletin

August 11, 2026 | Hours Worked: 0.80

Parts Used: AN365-428A, AN960-416, NAS6204-23, NAS6204-46

Completed Sonex service bulletin SNX-SB-015 by replacing AN hardware in both gear legs with NAS hardware specified in service bulleting. Snugged all bolts then backed off nuts 1/4 turn before applying torque seal.



RH gear bolts replaced with
NAS bolts



LH gear bolts replaced with
NAS bolts

Section 7: Tail Section

SNX-T14: Tail Surface Tips

Tail Tip Fairings – Part 1

October 4, 2025 | Hours Worked: 1.48

Began preparing fiberglass tail fairings for final fit by marking front overhang on each fairing to note how much filler will be needed to recontour the leading edge. Removed fairings from the tail and used SuperFil to build up inside crevice of leading edge. Also put SuperFil in any divots in fairings. Tried using SuperFil for ailerons by placing some in outboard edge gap to make tip ribs look a little better. Next time will take better precautions to not get it everywhere.



Marking how much fill needs to be added to fairing tip



SuperFil added to tips for reshaping



SuperFil used on aileron tip rib

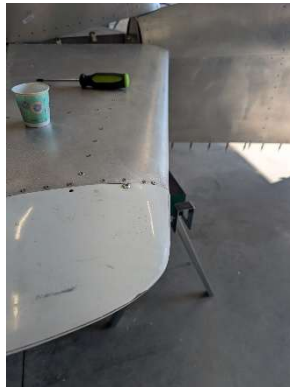
Tail Tip Fairings – Part 2

October 4, 2025 | Hours Worked: 1.37

Started process of final shaping of the tail tip fairings by mounting fairings back onto the tail and contouring leading edge with 80 grit sandpaper. Luckily put enough SuperFil into each cavity that there was enough material to work with. After tips were shaped, removed them and sanded entire tip with 120 grit then 240 grit sandpaper to remove part of the gel coat and get them ready for paint. Also sanded tip light fairing to prep them for paint as well.



RH tail tip leading edge contoured



RH tail tip leading edge contoured

Vertical tail tip
before

Vertical tail tip after

Aft edge of vertical tail tip slightly
adjusted to align with rudderLH tail tip leading
edge contoured

Tail tips contoured



Fiberglass ready for paint

Tail Tips Installation

October 29, 2025 | Hours Worked: 0.44

Parts Used: AN526-832R4, SNX-T14-02, SNX-T14-03

Installed remaining tail tips onto tail feathers with AN526-832 screws. T14 complete!



RH tail tip installed



LH tail tip installed



Tail tips installed

SNX-T13: Rudder Ribs & Skin

Rudder Issues

April 5, 2024 | Hours Worked: 4.30

Removed rudder from vertical tail assembly to inventory parts and inspect via camera. Determined that rudder is twisted and will need to replace skin.



Existing rudder



Verifying rudder alignment



Rudder edge visibly deformed



Rudder not laying flat on table



Interior of rudder



Interior of rudder



Vertical stabilizer square



Interior of rudder



Verifying rudder alignment
with laser

Rudder Rebuild – Part 1

April 10, 2024 | Hours Worked: 1.18

Manufacture of replacement parts -04 and -06



New -04 clip



New -06 clip



New rudder end cap clecoed

Rudder Rebuild – Part 2

April 12, 2024 | Hours Worked: 2.98

Parts Used: SNX-T13-03, SNX-T13-04, SNX-T13-05, SNX-T13-06, SNX-Z03-01 (42)

Made -01 and -02



Flap skin trimmed



Rudder drive horn riveted



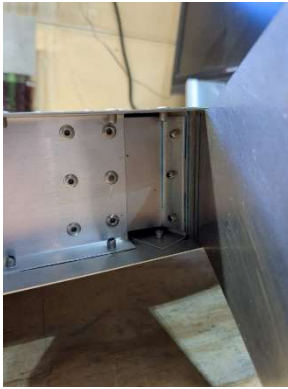
Rudder drive horn riveted

SNX-T12: Vertical Tail Misc. Details

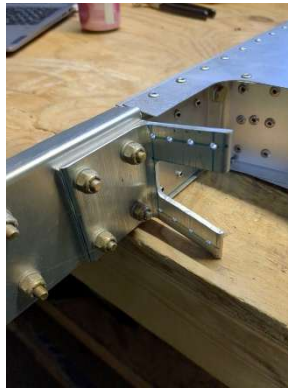
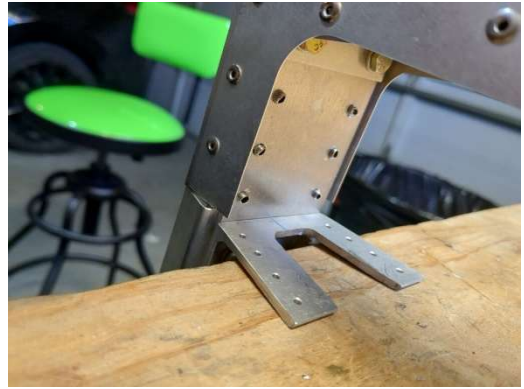
Vertical Stabilizer Inspection – Part 1

April 6, 2024 | Hours Worked: 0.40

Inspect vertical stabilizer parts. Was able to see most of the parts externally but obviously not able to inspect internal components like clips. Work observed externally appears to be fine.



Front spar clip

Previously built attach
angle

Vertical stabilizer attach angle

Previously built vertical
stabilizer

Vertical stabilizer spar

SNX-T11: Vertical Tail Stabilizer Skin

Vertical Stabilizer Inspection – Part 2

April 6, 2024 | Hours Worked: 0.10

Inspection of vertical stabilizer skin. Holes and fit look to be good. Slight damage notated on front right lower edge of stabilizer.



RH side of vertical stabilizer



LH side of vertical stabilizer



Small skin dent

SNX-T10: Vertical Tail Stabilizer Ribs

Vertical Stabilizer Inspection – Part 3

April 6, 2024 | Hours Worked: 0.80

Inventory of completed and installed vertical stabilizer parts. All previous work



Top of vertical stabilizer



Vertical stabilizer front fork

SNX-T09: Vertical Tail Main & Forward Spar Assemblies

Vertical Stabilizer Inspection – Part 4

April 6, 2024 | Hours Worked: 0.50

Inspection of previously completed work



Previously completed vertical stabilizer

Vertical Stabilizer Inspection – Part 5

April 8, 2024 | Hours Worked: 0.94

Parts Used: SNX-T12-08, SNX-T12-09, SNX-T12-10

Manufacture -03 and inspect existing work. Resulted in assemblies -01 and -02



Vertical stabilizer forward spar



Spacer plate used during install



Temporary spacer installed



Vertical stabilizer rear spar

SNX-T08: Vertical Tail Assembly

Tail Tip Mount

April 9, 2024 | Hours Worked: 2.47

Parts Used: SNX-T14-04

Removal of top rib to attach tip doubler and installation of T14-04 rib. Temp clecoed pending rudder installation.



Vertical
tip clecoed into place 2



Removal of tip rib to attach
mount doubler



Hole issues fixed with doubler
plate

Rudder Rebuild – Part 3

April 15, 2024 | Hours Worked: 2.71

Continued to work on rudder skin pre-drilling. 2 of 3 ribs pre-drilled and test fitted. Rudder horn rib remaining



Marking and drilling rudder skin to ribs



Clecoing rudder assembly together

Rudder Rebuild – Part 4

April 16, 2024 | Hours Worked: 6.55

Parts Used: SNX-T07-02, SNX-T07-03, SNX-T08-02, SNX-T13-01, SNX-T13-02

Completed assembly of the rudder including final drilling and riveting. Discovered Hinge Half on vertical stabilizer is misaligned and will need to be replaced and refitted



Rudder assembly pilot drilled



Noted rudder misalignment



Noted rudder misalignment



Replacement rudder assembly
complete

Rudder Rebuild – Part 5

April 18, 2024 | Hours Worked: 2.68

Removed existing rudder hinge half from vertical stabilizer, remade, and clecoed into place. Final riveting and fine adjustment still needed



New hinge clecoed into place



New hinge half



Old hinge half



Hinge half rivets drilled out

Rudder Rebuild – Part 6

April 19, 2024 | Hours Worked: 6.00

Parts Used: SNX-T10-06

Finished riveting upper hinge half and began test fitting fiberglass tip and making extra flange for removable tip. Planning on getting tip rough fitted and fasteners made and then doing final fiberglass work later down the road



Hinge rivets finished



Right side of tip



Left side of tip



Test fit



Test fit



Slight tip misalignment. Will fix in final fiberglass layup

Rudder Rebuild – Part 7

April 21, 2024 | Hours Worked: 4.10

Parts Used: SNX-T08-01, SNX-T09-01, SNX-T09-02, SNX-T10-01, SNX-T10-02, SNX-T10-03, SNX-T10-04, SNX-T10-05, SNX-T11-01, SNX-T14-04

Finish creation of vertical tip mounting flange and final riveting of vert stabilizer assembly.



Completed vertical assembly



Completed vertical assembly



T14-04 with nutplates



Will correct tip at later time



Left side attached



Forward attached



Tip attach plates riveted



Fairing



Tip attach plates riveted



Completed vertical assembly



Completed vertical assembly



Right side attached



Completed vertical assembly

SNX-T07: Elevator Ribs & Skin

Tail Inspection – Part 1

April 9, 2024 | Hours Worked: 0.84

Parts Used: SNX-T07-06

Inspection of previous work.



Elevator inspection



Elevator inspection



Elevator drive horn

Checking twist in control
surface

Elevator inspection

Elevator Trim Tab

April 23, 2024 | Hours Worked: 0.17

Parts Used: SNX-T02-01, SNX-T03-01, SNX-T03-05, SNX-T04-02, SNX-T04-03, SNX-T04-04, SNX-T04-05, SNX-T05-01L, SNX-T05-01R, SNX-T06-02, SNX-T06-04, SNX-T07-02, SNX-T07-03, SNX-T07-05, SNX-T07-08, SNX-T14-04

Finished task by safety wiring trim tab hinge pin



Trim tab safety wired

SNX-T06: Horizontal Tail Misc. Details

Tail Inspection – Part 2

April 9, 2024 | Hours Worked: 0.23

Parts Used: SNX-T06-01, SNX-T07-04L, SNX-T07-04R, SNX-T07-07, SNX-T12-02, SNX-T12-06

Inspection of previous work



Elevator Inspection

Elevator Horn Re-do – Part 1

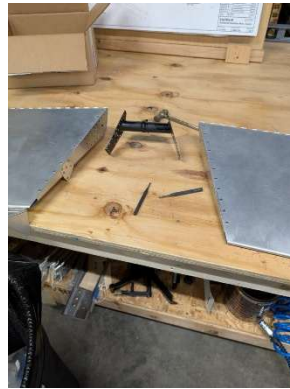
May 10, 2025 | Hours Worked: 1.78

After some reflection on the slight shortcoming of up elevator travel, it was decided that the elevator horn should be removed and repositioned slightly forward to enable more up-travel. While the existing elevator horn will be retained the inboard elevator ribs will be removed and replaced so that the horn

can be located more forward than it's existing position. Unbolted and removed vertical tail from stabilizer and removed elevator hinge pins and elevator from horizontal tail. Drilled out elevator horn rivets and inboard rib rivets in preparation for replacement.



Vertical tail and elevator removed from fuselage



Elevator horn rivets drilled out



Trim tab mount orientation



Inboard ribs drilled out and removed from elevator

Elevator Horn Re-do – Part 2

May 27, 2025 | Hours Worked: 1.57

Parts Used: SNX-T07-04L, SNX-T07-04R

Located new inboard elevator ribs onto elevator horn per B model plans; made sure horn was all the way forward on ribs to increase up travel limits. Drilled new holes in ribs from existing elevator horn. Disassembled and deburred holes in elevator ribs. Located and transferred holes for trim cable bracket to new rib (even though there aren't current plans to use legacy trim tab). Riveted together elevator horn assembly and added nut plate for legacy trim system. Laid out elevators on table and mocked up

horn location using overall 78" dimension. Drilled a couple holes in ribs to keep everything together then checked fitment with horizontal stabilizer; fitment checked good.\



Inboard elevator ribs located and clecoed



Trim tab bracket transferred



Elevator horn assembly riveted



Reassembling elevators

Elevator Horn Re-do – Part 3

June 3, 2025 | Hours Worked: 1.27

Verified flatness and squareness of elevator assembly on workbench then final drilled inboard elevator ribs using existing holes in elevator skin. Disassembled, deburred, then riveted elevators together.



Inboard elevator ribs drilled



Elevator rework complete

SNX-T05: Horizontal Tail Stabilizer Skin

Tail Inspection – Part 3

April 9, 2024 | Hours Worked: 0.10

Inspection of previous work



Horizontal stabilizer inspection

SNX-T04: Horizontal Tail Stabilizer Ribs

Tail Inspection – Part 4

April 9, 2024 | Hours Worked: 0.13

Inspection of previous work



Horizontal stabilizer inspection



Stabilizer tip rib

SNX-T03: Horizontal Tail Main & Forward Spar Assemblies

Tail Inspection – Part 5

April 9, 2024 | Hours Worked: 0.28

Parts Used: SNX-T03-02, SNX-T03-03, SNX-T03-04, SNX-T03-06, SNX-T06-03, SNX-T06-05, SNX-T06-06

Inspection of previous work



Horizontal stabilizer inspection

Tail Spar Reinforcement

April 10, 2024 | Hours Worked: 1.70

Creation of doubler to account for edge violations in forward Spar. Decided that drilling out and replacing forward Spar would be too much work so created doubler to go on back side



Spar doubler clecoed



Spar doubler clecoed

SNX-T02: Horizontal Tail Assembly

Tail Inspection – Part 6

April 9, 2024 | Hours Worked: 1.80

Parts Used: SNX-T14-04

Inspection of previous work and removal of tip ribs for surface tip installation. Hole issues found in forward Spar and tip Rib. Will need to replace rib tip and create doubler for spar



Hole issues in tip rib



Stabilizer spar



Horizontal stabilizer inspection

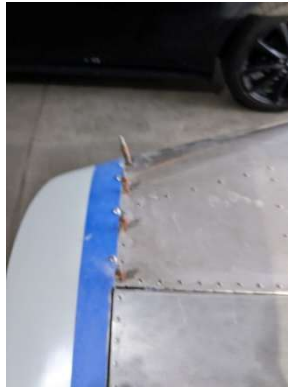
Vertical Stabilizer Tips – Part 1

April 22, 2024 | Hours Worked: 3.00

Replacement of left vert stabilizer tip and fiberglass work



Installed LH tip



Updrilling stabilizer and tip

Vertical Stabilizer Tips – Part 2

April 23, 2024 | Hours Worked: 6.32

Finished riveting left side tip rib, and tip doubler along with rough fiberglass work. Created right side tip doubler and did rough fiberglass work. T02 complete other than final hinge installation and cotter pin installation.



RH tip



LH tip



LH tip final riveting



RH tip deburr



LH tip complete



LH tip rough fit



RH tip complete 2



LH tip rough fit



RH tip test fit



RH tip clecoed



RH tip final riveting



RH tip complete



LH tip
rough fit



RH tip complete



RH tip complete



Tail surfaces complete



Tail surfaces complete



Tail surfaces complete

Final Tail Installation – Part 2

October 28, 2025 | Hours Worked: 1.72

Parts Used: MS24665-5

Removed piano hinges installed in elevator during paint process and reamed out hinge loops. Installed elevator onto fuselage and horizontal stabilizer with piano hinges. Drilled cotter pin holes in hinge loops per plans and installed cotter pins. T02 complete!



Elevator installed



Cotter pins installed in elevator hinge

SNB-T01: Tail Surface Installation

Tail Installation – Part 1

April 25, 2025 | Hours Worked: 3.68

Parts Used: AN365-428A, AN4-10A, AN960-416, SNB-F21-02, SNX-T02-01, SNX-T09-03

Began tail surface installation by moving tail surfaces from house to hangar. Discovered that horizontal stabilizer skins were installed upside down and that the bottom skins would need to be trimmed to fit around fuselage tail cone. Using the top side skin as a reference, trimmed bottom skin to clear fuselage tail cone. Will need to come up with a custom solution for tail fairings as there is not enough material left to mount fairings from plans. Trimmed lower horizontal stabilizer skin in multiple rounds to leave

1/16 – 1/32" gap between fuselage and stabilizer skin. Located horizontal stabilizer per plan dimensions and pilot, squared to fuselage using laser level, and drilled to fuselage longerons. Checked elevator up travel and determined that elevator drive horn needed a small amount ground off to clear fuselage structure and allow full travel. Updrilled mounting holes to 1/4", deburred, and installed horizontal stabilizer with AN4 hardware. Un bolted temporary tail spacers from tail spar channel and located vertical stabilizer onto fuselage. Needed to trim turtledeck skin a little to adjust vertical alignment. Noticed that the stabilizer skin was preventing up elevator travel so will need to trim that as well prior to final installation.



Stabilizer skin installed upside down



Trim lines marked on stabilizer skin



Initial skin trim



Small amount of material removed from elevator horn



Horizontal stabilizer clamped into place and aligned via laser



Mounting holes updrilled



Horizontal tail assembly bolted into place



Horizontal tail assembly bolted into place



Temporary spacers removed from tail channel



Vertical tail assembly located



Interference between elevator horn and vertical stabilizer skin

Tail Installation – Part 2

April 29, 2025 | Hours Worked: 4.37

Parts Used: AN366F-428A

Mocked up vertical stabilizer into place and noticed elevator horn was impacting vertical stabilizer skin and preventing full motion. Removed vertical stabilizer and trimmed skin at base. Continued to file elevator horn to ensure full 25 degrees of pitch up. Inserted elevator pushrod into fuselage before getting too far. Set elevator hinge pins all the way. Did not install cotter pins yet. Aligned tail using laser level to ensure vertical stabilizer was centered on fuselage. Temporarily installed rudder to check straightness of stabilizer and squareness to fuselage. Temporarily installed bolts through tail spar then updrilled forward mount holes for AN4 hardware. Removed vertical tail and rudder, deburred mounting holes and installed nut plates for AN4 hardware.



Nutplates installed



Elevator horn interference

Vertical
stabilizer skin trimmed

Elevator horn filed further



Elevator pushrod inserted

Vertical
stabilizer alignedVertical
stabilizer aligned

Rudder temporarily installed



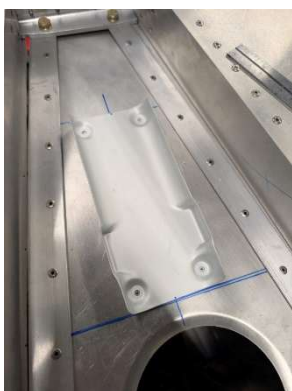
Forward mount holes updrilled

Tail Installation – Part 3

May 2, 2025 | Hours Worked: 3.52

Parts Used: AN3-6A, AN3-7A, AN365-1032A, AN4-7A, AN960-10, AN960-416, SNX-T08-01, SNX-T08-02, SNX-T10-07

Mocked up ELT location on rear shear web and marked vertical stabilizer on where skin needs to be trimmed. Removed vertical stabilizer and marked out mounting hole location on shear web. Trimmed vertical stabilizer skin and riveted ELT mount and clamps to fuselage. Painted elevator horn with spray paint. Reattached vertical stabilizer with AN3 and AN4 hardware. Fit rudder to fuselage with lower portion of rudder hinge half. Located and pilot drilled hinge half to left side of fuselage. Removed rudder to deburr and rivet hinge half to tail cone.



Marking ELT tray mounting holes



ELT mounted



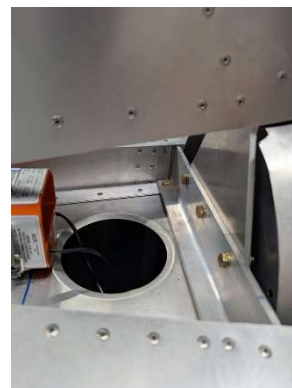
Clamping elevator up



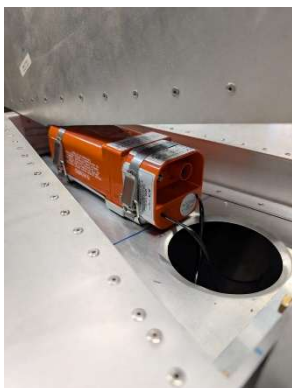
Painted elevator horn



Rear stabilizer bolts installed



Front stabilizer bolts installed



ELT mounted under vertical stabilizer



Lower rudder hinge half updrilled



Rudder installed



Rudder installed

Tail Installation – Part 4

June 3, 2025 | Hours Worked: 2.82

Placed newly rebuilt elevator onto horizontal stabilizer to check fitment; fit checked good with overall width not changing. Reinstalled elevator hinge pins then reinstalled vertical tail and rudder. Checked elevator travel and verified 23 degrees up travel and 24 degrees down travel limited by stops on elevator horn.



Elevator reinstalled

Tail components reinstalled
onto fuselage

Tail Fairing Panels – Part 1

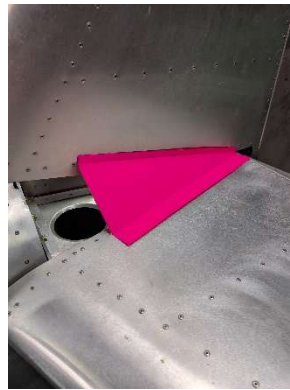
October 4, 2025 | Hours Worked: 2.27

Parts Used: 0.025 Sheet

Began working on the tail fairing panels by cutting out template from plans on poster paper and mocking it up on the fuselage. Because the tail skin was installed upside down and needed extra trimming, will need to modify plans template. Expanded template forward and outboard to better match profile of upper fuselage and cover extra gap on horizontal stabilizer. After making the template out of poster board, transferred the pattern to .025 aluminum sheet and began to bend fairings into place. Will need some more work after annealing to better fit the gap.



Cutting template from poster board



Cutting template from poster board



Second iteration of fairing template



Transferring template to aluminum sheet



Rough fit of fairings



Rough fit of fairings

Tail Fairing Panels – Part 2

October 4, 2025 | Hours Worked: 2.55

Parts Used: SNB-T01-05L, SNB-T01-05R

Continued to work on tail fairing panels by annealing panels via sharpie method; scribbled sharpie on the panels then heated them via torch until sharpie marks began to disappear. After annealing, worked panels over a couple scrap pieces of pipe to work curve into the panels; this method worked much better than expected. After shaping the panels into an approximate bend, laid them onto the fuselage and tweaked the flanges slightly to get them to sit flush. Once panels were close, pilot drilled panels and transferred holes into vertical and horizontal stabilizers with 5/64" drill bit for sheet metal screws. Verified final fit then removed panels to better trim front flange and updrill holes in panel to 1/8". Will wait to reattach panels once everything is painted.



Marking and annealing fairing panels



Rechecking fit after annealing



Fairing panels shaped



RH fairing panel installed



LH fairing panel installed



Fairing panels final fit



Fairing panels final fit

Final Tail Installation – Part 1

October 23, 2025 | Hours Worked: 0.89

Parts Used: 8507K41

Began final assembly of tail by mounting horizontal stabilizer to fuselage with AN4 hardware. Installed weatherstripping along inboard leading edge to help take up gap between stabilizer and turtledeck. Applied torque seal to mounting bolts.



Horizontal stabilizer installed



Weatherstripping installed

Final Tail Installation – Part 3

October 28, 2025 | Hours Worked: 1.82

Parts Used: 8507K41, AN3-5A, AN3-6A, AN530-4-6 (PK screw), MS24665-5, SNB-T01-05L

Installed vertical stabilizer onto fuselage. Replaced AN3-6A bolts in tail with AN3-5A bolts for better fit and to ensure nut wasn't bottoming out on bolts. Installed weather stripping on bottom edge of vertical stabilizer. Removed hinge pin from rudder installed during painting and reamed out hinge loops. Cut rudder hinge pin to size then installed rudder onto aircraft. Drilled cotter pin holes and

installed cotter pins in rudder. Installed vertical tail tip onto vertical stabilizer then installed LH tail fairing panel to check paint lines; fit looks good.



Vertical stabilizer bolted to fuselage



Vertical stabilizer installed



Rudder and vertical tail tip installed



Rudder cotter pin holes drilled and pins installed



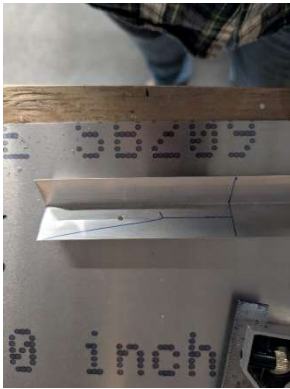
LH tail fairing panel installed

Tail Fairing Panels – Part 3

October 29, 2025 | Hours Worked: 0.94

Parts Used: AN530-4-6 (PK screw), SNB-T01-05R, SNX-Z01-03 (96)

In lieu of using plan -06 angles to cover small gap behind tail fairing, opted to create a custom piece to seal up compartment where ELT sits. Cut Z01-03 stock to size and slipped underneath tail panel fairings. Overlapped furthest aft screw hole from fairing panels and marked two new PK screw holes. Cut angles then deburred and tested final fit and coverage. Will paint white to match before final install. Temporarily installed RH tail fairing panel with PK screws but will need to remove to work on ELT.



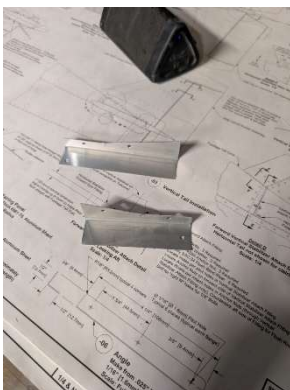
Fairing angle template traced
on Z01-03 stock



Test fitting of fairing angles



Fairing angle installed



Pre-paint fairing angles

Final Tail Installation – Part 4

October 30, 2025 | Hours Worked: 0.72

Painted tail fairing angles with white spray paint then installed onto tail. T01 complete!



LH aft tail fairing angle painted
and installed



RH aft tail fairing angle
painted and installed

Section 8: Wings

SNX-WC03: Wing Conversion – Rear Spar

Wing Conversion Work – Part 2

May 11, 2024 | Hours Worked: 2.45

Parts Used: AN3-5A, AN365-1032A, SNB-W13-02L, SNB-W13-02R, SNX-W12-01L, SNX-W12-01R, SNX-W13-01L, SNX-W13-01R, SNX-WC03-01L, SNX-WC03-01R

Modification of rear spars for model B conversion



RH root forward rear spar final assembly



RH root configuration



LH final assembly



LH final assembly



RH rear spar root clecoed



RH root aft final assembly

SNX-WC02: Wing Conversion – Main Spar

Main Wing Spar Mating – Part 1

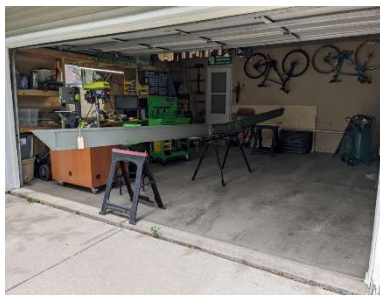
June 13, 2024 | Hours Worked: 4.59

Parts Used: AN3-10A, AN3-11A, AN365-1032A, AN960-10, XNS-W40-21

Mated spars together and up drilled alignment holes to 1/4" per plans. Spars temporarily fastened together with AN4 hardware to drill wing attachment blocks. Holes drilled with drill press on ground and leveled by using 3/8" bit and drill guide, then 15/32" bit and finished with 1/2" reamer. Both holes have give slight resistance when inserting AN8 bolts. Xenos rig blocks drilled and bolted on with spars mated. One hole accidentally drilled to 1/4" and will need AN4-11A bolt to secure it; no edge violations. Spars ready to continue (minus the one bolt and some touch up primer).



Spars mated and clamped



Spars mated



Wing attach block drilling process



Drilling 3/8" hole with guide



Final mating fit



Final mating fit



Enlarged rigging block hole



Spar mating complete



Rig plate missing oversized bolt



Spar mating complete



Spar mating complete

Main Wing Spar Mating – Part 2

June 15, 2024 | Hours Worked: 0.74

Parts Used: 102813-000, AN365-428A, AN4-11A

Inventory of Aircraft Spruce order and installation of the final rig plate bolt in the RH spar. W08 now complete



Oversized bolt installed



Oversized bolt installed

SNX-WC01: Wing Conversion – Details

Wing Conversion Work – Part 3

May 15, 2024 | Hours Worked: 1.75

Parts Used: 2x2x0.125x96 Angle, SNX-WC01-07R

Manufacture of wing conversion parts



Conversion Root Rib Attach
Angle

Wing Conversion Work – Part 4

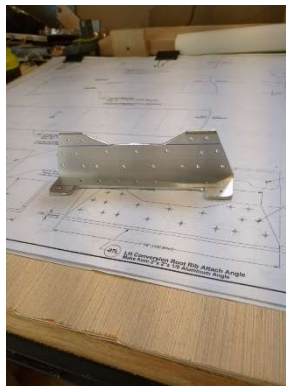
May 16, 2024 | Hours Worked: 4.36

Parts Used: 2x2x0.125x96 Angle, SNX-WC01-06L, SNX-WC01-06R, SNX-WC01-07L

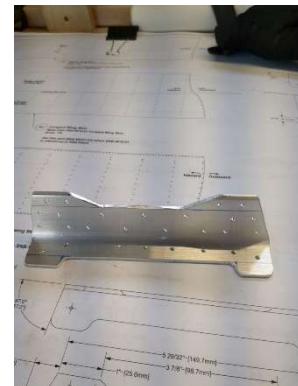
Manufacture of wing conversion parts



Root rib attach angle



Root rib attach angle



Root rib attach angle



Root rib attach angle



Root rib attach angle

Trimming Wing Skins – Part 1

June 26, 2024 | Hours Worked: 0.75

Parts Used: SNX-W19-01, SNX-WC01-04

Trimmed legacy upper wing skin per conversion plans. Trimmed with Andy snips and deburred cut edge with die grinder



Wing skin trimming

Trimming Wing Skins – Part 2

June 28, 2024 | Hours Worked: 0.38

Parts Used: SNX-W19-02, SNX-WC01-05

Trimming of SNX-W19-02 to create SNX-WC01-05



Lower wing skin trimmed

Trimming Wing Skins – Part 3

June 29, 2024 | Hours Worked: 0.33

Parts Used: SNX-W18-01, SNX-WC01-01

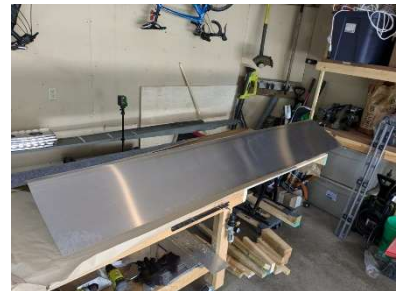
Trimming of forward Wing Skin per conversion plans



Trim line marked



Forward wing skin trimmed



Forward wing skin trimmed

Trimming Wing Skins – Part 4

July 30, 2024 | Hours Worked: 0.65

Parts Used: SNX-W19-01, SNX-W19-02, SNX-WC01-04, SNX-WC01-05

Trimmed upper and lower LH wing skins per conversion plans



Lower skin trimmed



Lower skin trim line



Upper skin trimmed

Trimming Wing Skins – Part 5

August 8, 2024 | Hours Worked: 0.55

Parts Used: SNX-W18-01, SNX-WC01-01

Trimmed LH Forward wing skin to new dimensions per wing conversion plans



Trim line laid out



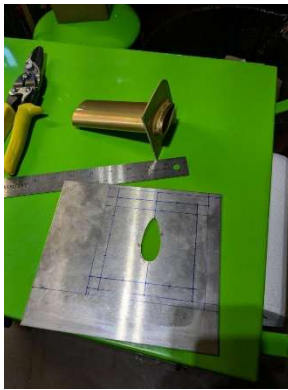
LH forward wing skin trimmed

SNB-W23: Pitot System

Pitot Mount Skin Doubler – Part 1

June 30, 2024 | Hours Worked: 1.88

Began creating skin doubler for AN5812 pitot Mount from .032 scrap skin. Pitot Mount profile cut in doubler and holes laid out for test fit. Doubler to mount to outboard (flat) side of #5 rib and get sandwiched between wing skin and mount.



Skin doubler plate before



Skin doubler plate after

Pitot Mount Skin Doubler – Part 2

July 2, 2024 | Hours Worked: 2.62

Parts Used: SNX-W23-08

Drilled skin doubler to rib #5 and clecoed in place using mock skin section. Drilled and countersunk pitot mount in preparation for nutplates. Final drilling to occur once lower forward skin is clecoed in place. Creation of -08 Tubing Support Plates from scrap. Added extra 3/8" hole on plates for wing wiring bundle to help clear root rib. Made an extra for LH wing to help guide cables from root rib.



Skin doubler for pitot mast
mounted



-08 support plates

Pitot Mount Prep – Part 1

July 9, 2024 | Hours Worked: 1.75

With forward skin up drilled and clecoed into place, transferred pitot mount main hole and doubler plate rivet holes into forward skin. Also drilled 1/4" pitot mount bracket holes in doubler and forward

skin. Cut out 4" diameter access hole between #4 and #5 rib. Plan to mount pitot control box on outboard side of #4 rib.



Pitot mount doubler holes drilled



Access hole cut

Pitot Mount Prep – Part 2

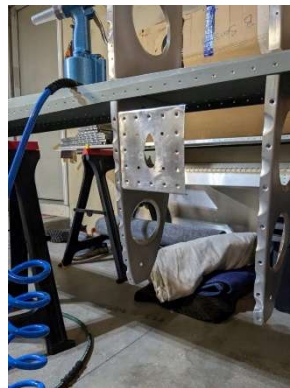
July 13, 2024 | Hours Worked: 0.75

Parts Used: AN526-632R8

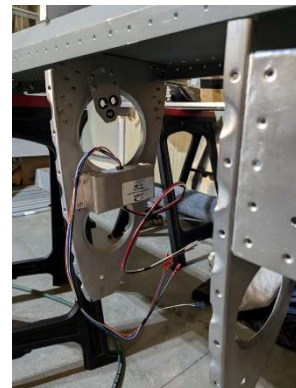
Removed pitot mount doubler plate from #5 rib and deburred/dimpled all holes. Doubler plate riveted to rib. Installed Dynon heated pitot controller to outboard side of #4 rib using K1000-06 nutplates (x4) and AN526-632R8 screws.



Pitot mount doubler



#5 rib installed



#4 rib installed



Pitot controller installed on #4 forward rib



Pitot controller nut plates



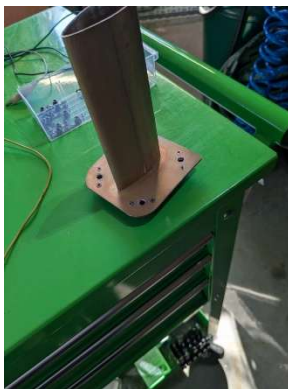
Pitot setup in forward part of wing

Pitot Mount Prep – Part 3

July 18, 2024 | Hours Worked: 0.95

Parts Used: 51055K96, AN526C-632R6, Dynon 100640-000 [10710], K1000-8, TygonTube

Nut plates installed on Pitot mount. Pitot controller remounted to #4 rib with 632R6 screws. Pitot tube mocked up in bracket and lines bent to offset connections above inspection plate. Tygon tubing ran through support plates. White indicates pitot line and yellow indicates AOA line. Pitot tube mount screws still need to be drilled and tapped and spacers created for mounting plate.



Nut plates installed on pitot mount



Pitot controller wiring and tubing runs



Bends in pitot tube connections

Pitot Mast Drilling

September 7, 2024 | Hours Worked: 1.32

Parts Used: AN526-632R4

Marked mounting holes in pitot mount and tube; two per side. Drilled pilot holes with #36 drill bit. Upsized mount holes to #25 for #6 screws. Carefully tapped pitot head with 6-32 tap through mounting pads. Front left hole had screw break off inside so needed to (mostly) drill out and redrill slightly lower. Mount holes deburred and temporarily attached to pitot head with 6R4 screws. Mount assembly complete (minus paint on mount).



Mounting holes marked



Holes upsized in mount mast



Holes upsized in mount mast



Pitot mounting holes complete

Pitot Installation – Part 1

June 24, 2026 | Hours Worked: 2.17

Parts Used: 0.125 Plate, 102813-000, AN526C-832R8, Dynon 100667-000 [10030], MS24694-S54

Leveled fuselage then temporarily installed pitot mount into RH wing to calculate spacer size needed to level pitot tube. Made 2 0.125" spacers (0.25" total) out of 0.125" aluminum sheet to place under back side of pitot tube mount. Installed mount into RH wing, checked levelness, then installed screws. Installed pitot mast into mount and secured pitot tube to mast. Connected pitot and AOA tubes with push-to-connect connectors then connected wires to pitot controller in wing. Cobbled together syringe and 1/2" ID rubber tubing in preparation of initial pitot system leak test.



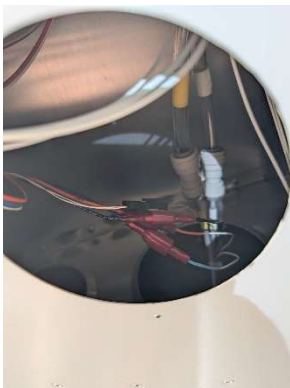
Pitot mount spacers created



Pitot mount alignment verified



Pitot mount secured



Pitot mast connected



Pitot probe installed



Pitot test device

Pitot Installation – Part 2

June 25, 2026 | Hours Worked: 2.72

Did some rough trimming of the RH side fuselage side panel to verify routing path of pitot/aoa tubes. Disconnected RH rudder cable to ensure all bundles were behind it then reconnected cable to rudder pedal. Drilled 1/2" holes through fuselage vertical channel and installed rubber grommets. Routed lines through grommets then up RH side of baggage compartment behind rudder cable. Secured lines loosely with adhesive pads as to not crimp tubes and effect pressure. Fabricated mount bracket out of scrap aluminum sheet for #2 vertical channel to prevent rubbing on exposed edge. Trimmed tubes to length then connected them to Dynon ADAHRS unit. Conducted pitot leak test IAW with AC 43.13 with previously cobbled together pitot testing unit. After one minute, an airspeed loss of 2 knots was observed when pressurizing system to 150 knots. Ops check good and pitot system complete!



Rough fit of side panel to verify routing



RH cable bundles and pitot/AOA tubes secured to RH fuselage side



Support bracket riveted to #2 vertical channel



Pitot/AOA lines routed to ADAHRS box

SNX-W22: Wingtips

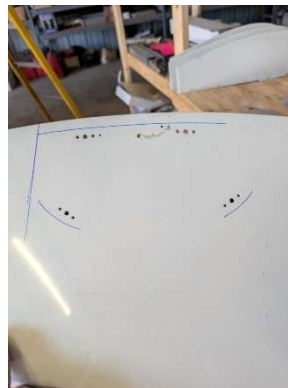
Wing Tip Finishing – Part 1

October 8, 2025 | Hours Worked: 2.23

Began prepping wingtips and tip light fairings for paint and final finishing. Located tip lights onto wing tip light fairings and drilled wire pass through hole and mounting screw holes; tip lights will attach to fairing with Dynon panel screws and elastic nuts. Located tip light fairings on the wing tips by aligning center of light to the widest part of the wing (just aft of the main spar). Transferred mounting holes from the tip light fairings to the wing tips then drilled holes for nutplates. Cut large maintenance holes in wing tips where fairing will cover so that lights can be disconnected. Sanded outside edges of wing tips to prep for filler to be applied and deburred holes. Applied clear packing tape along outside edge of wing skins and reinstalled wing tips. Packed SuperFil into edges where there was a gap between the wing tip flange and the wing skin. Will remove and sand down wing tips in the future.



Tip light mounting holes drilled in fairings



Tip light fairing mounting holes drilled for nutplates



Access holes cut in wingtips



Tape applied to edge of wing skin



SuperFil mixed up



SuperFil being applied to damaged fiberglass



Filling gap between wing tip
and wing skin



Filling gap between wing tip
and wing skin

Wing Tip Finishing – Part 2

October 9, 2025 | Hours Worked: 0.90

Removed wing tips from wing after letting SuperFil cure. While not the most elegant (or clean) epoxy job, it did take up the gap pretty well. Removed packing tape from edge of wing and lightly reshaped the edge of the wingtips. Removed ailerons and flaps from the wings to prepare for paint.



Wingtips removed from wings



Wingtip flanges sanded



Wingtips prepped for paint



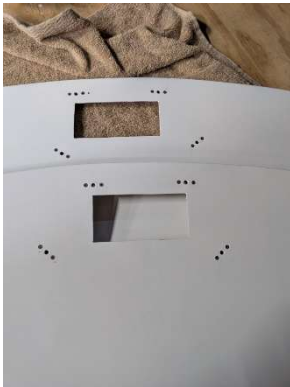
Ailerons and flaps removed
from wings

Wingtip Installation

October 18, 2025 | Hours Worked: 1.30

Parts Used: K1000-8, SNX-W22-01L, SNX-W22-01R

Installed nutplates for wingtip light fairings onto wing tips and riveted wingtips onto wings with AAP-42 aluminum rivets. After wingtips were installed, sanded rivets in preparation of paint.



Nutplates installed in wing tips



Wingtips riveted onto wings

SNX-W21: Rib #9 & Aileron Bellcrank

Aileron Bellcranks – Part 1

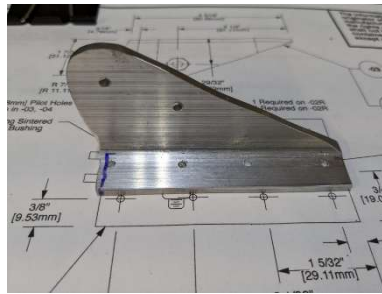
June 16, 2024 | Hours Worked: 2.67

Parts Used: 2x2x0.125x96 Angle

Cut blanks and made templates for -03, -04, -06, and -07 angles. Made an error drilling holes for -03 and -04 angles and will need to scrap angles and create two more blanks



Cutting angle blanks



Aileron bellcrank angle cut and drilled

Aileron Bellcranks – Part 2

June 18, 2024 | Hours Worked: 1.34

Parts Used: 2x2x0.125x96 Angle, SNX-W21-03, SNX-W21-04

Cut new blanks for -03 and -04 and cut out angles. Mated together angles and up drilled bolt hole through -05 spacer block. Symmco bushings are just a little loose in holes so will need to apply Loctite 638 before final assembly.



-03 aileron bellcrank angle



-04 aileron bellcrank angle

Aileron Bellcranks – Part 3

June 19, 2024 | Hours Worked: 3.75

Parts Used: AN3-6A, AN365-1032A, SNX-W21-02L, SNX-W21-06, SNX-W21-07, SNX-W21-08, SNX-W21-09, SNX-Z01-03 (96), SNX-Z02-04 (96), Symco SF-1014-6

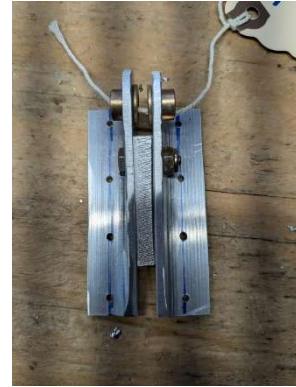
Machined -06 and -07 angles from template and press fit Symmco bearings to create -02L assembly. (8) -09 clips cut from Z01-03 stock, drilled and completed, and -13/-14 channels cut (but not yet drilled).



-02 assembly in progress



-02 assembly in progress



Completed -02 assembly



-09 clips



Completed -02 assembly

Aileron Bellcranks – Part 4

June 20, 2024 | Hours Worked: 5.49

Parts Used: AN3-14, AN310-3, AN365-1032A, MS24665-132, SNX-W16-06, SNX-W21-01L, SNX-W21-02L, SNX-W21-09, SNX-W21-10, SNX-W21-11, SNX-W21-12, SNX-W21-13L, SNX-W21-13R, SNX-W21-14L, SNX-W21-14R

Drilling of holes in -13L/R and -14L/R vertical channels. Both -10 bell crank assemblies created. Two washers per assembly needed to get castle nut aligned properly. Completed -01L including final riveting and lubrication of pivot with white lithium grease. -08 clip heights on vertical stiffeners set by using right angle from rib face. -01R clecoed in place; waiting to up drill and final rivet once Symmco bearing are set in place with Loctite to finish and finalize assembly



Vertical channel drilled



-01L inboard side



Vertical channel drilled



Bellcrank assembly



#9 bellcrank rib



-01L outboard side

Aileron Bellcranks – Part 5

June 20, 2024 | Hours Worked: 1.71

Parts Used: AN3-6A, AN365-1032A, SNX-W16-06, SNX-W21-01R, SNX-W21-02R, SNX-W21-03, SNX-W21-04, SNX-W21-05, SNX-W21-09, SNX-W21-10, SNX-W21-13R, SNX-W21-14R, Symco SF-1014-6

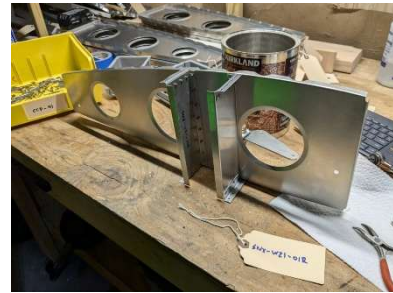
Used Loctite 638 retaining compound to hold Symmco bearings into place; worked very well. Assembled angles to create pivot assembly then added -10 bell crank assembly and completed final riveting onto -01R to complete #9 rib assembly. Will let Loctite harden before greasing with white lithium per plans.



-02R Assembly



-01R inboard



-01R outboard



#9 Rib

SNB-W17: Root Rib Details & Installation

Root Rib Prep – Part 1

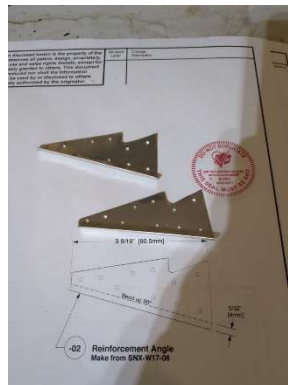
July 5, 2024 | Hours Worked: 3.05

Parts Used: SNB-W17-02, SNB-W17-03, SNB-W17-04, SNB-W17-05

Creation of -02, -03, -04, and -05 angles from scrap and installation of RH root ribs in place



Reinforcement angles



Reinforcement angles



Reinforcement angles



Reinforcement angles



Aft root rib fitted



Aft root rib fitted

Root Rib Prep – Part 2

July 14, 2024 | Hours Worked: 0.85

Parts Used: Heyco 2030, Heyco 2820, SNB-W17-01R, SNB-W17-02, SNB-W17-03, SNB-W17-04, SNB-W17-05, SNX-W15-08, SNX-W16-11

Disassembled RH forward and aft root ribs and angles, prepared holes and ribs, and riveted parts together. Assembly ready for installation on main spar



RH forward root rib



RH forward root rib



RH aft root rib



RH aft root rib

Root Rib Prep – Part 3

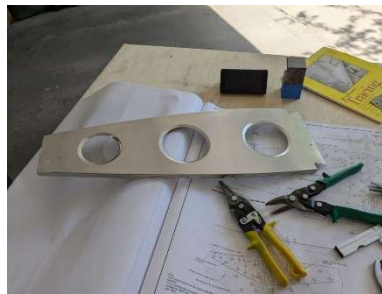
August 11, 2024 | Hours Worked: 2.38

Parts Used: SNX-W16-06, SNX-W16-11

Took W16-06 aft rib and modified it using template from plans into W16-11 aft root rib. Removed both forward and aft root rib attach angles to insert root ribs then temporarily reattached. Aligned root ribs to wing skin, pilot drilled and clecoed. Holes then transferred from root rib attach angles to root ribs and pilot drilled. Aft-most holes on forward root rib still need to be pilot drilled due to wing attach block in the way.



Layout of LH root rib



LH aft root Rib trimmed



LH forward Root rib pilot drilled



LH aft root Rib pilot drilled

Root Rib Prep – Part 4

August 23, 2024 | Hours Worked: 1.70

Parts Used: SNB-W17-01L, SNB-W17-02, SNB-W17-03, SNB-W17-04, SNB-W17-05, SNX-W15-09, SNX-W16-11

Removed forward and aft root ribs from main spar and finished pilot drilling ribs to attach angles. Reinforcement gussets matched drilled and all holes up drilled. Everything deburred, prepped and riveted together. Root Rib assembly complete pending installation to main spar



Root ribs updrilled



LH root ribs (inboard)



LH root ribs (outboard)

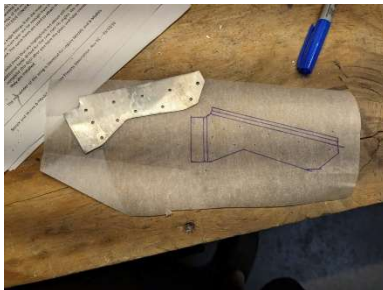
SNX-W16: Aft Wing Ribs

Wing Rib Prep – Part 1

June 13, 2024 | Hours Worked: 3.27

Categories: SNX-W16: Aft Ribs Tags: 0.025 Sheet, SNX-W16-08

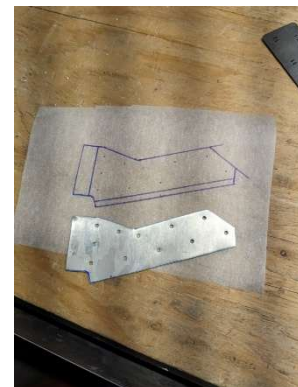
Began preparation of the aft wing ribs. Traced template of -07 and -08 gusset and transferred to .025" sheet to cut out. Bends formed via vice and small mallet. -08 gussets completed.



-08 gusset and template



-08 gussets complete



-07 gusset and template

Wing Rib Prep – Part 2

June 14, 2024 | Hours Worked: 6.44

Hours Worked: 0.025 Sheet, SNX-W16-07, SNX-W16-09, SNX-Z01-03 (96)

Finished making -07 gussets and proceeded to prep aft wing ribs. All ribs prepped minus #9 aileron bell crank ribs. Test fit all ribs to spars and fit looks good; needed to do some slight trimming of -05 ribs

to clear spar caps. Ribs #1 – #4's gussets clecoed in place and need to be riveted once CCP-41 rivets arrive. -01R rib attach angle to rear spar not drilled yet; will drill on final installation.



-07 gussets complete



Ribs #1-4 trimmed and gussets installed



Aft rib mockup on spars Aft rib mockup on spars



Aft tab added to #1 rib

Wing Rib Prep – Part 3

June 20, 2024 | Hours Worked: 1.05

Parts Used: SNX-W16-01R, SNX-W16-02, SNX-W16-05, SNX-W16-06, SNX-W16-07, SNX-W16-08, SNX-W16-09

Began up drilling -01 through -04 ribs with gussets and finished riveting cut end of -01L



-01L cut end



-01L rib



-05 rib



-04 rib

Wing Rib Prep – Part 4

June 21, 2024 | Hours Worked: 1.70

Parts Used: SNX-W16-01L, SNX-W16-03, SNX-W16-04, SNX-W16-06, SNX-W16-07, SNX-W16-08

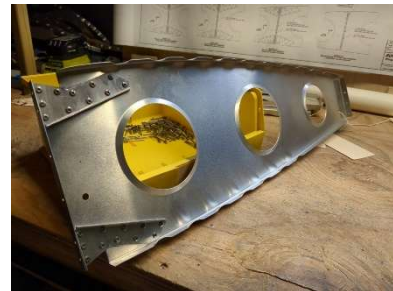
Finished up drilling and riveting gussets to aft ribs #1 – #4. W16 complete!



Gusset installation



Gusset installation



Gusset installation

SNX-W15: Forward Wing Ribs

Wing Rib Gussets

June 23, 2024 | Hours Worked: 5.37

Parts Used: SNX-W15-01, SNX-W15-02, SNX-W15-05, SNX-W15-06, SNX-W15-07

Determined pre-existing -06 and -07 gussets were from outdated plans and needed to be scrapped. New -06 and -07 gussets cut, drilled, and bent from template using scrap .025 sheet. Finished trimming -01 and -02 forward ribs and clecoed to spars.



Gussets



Gusset creation



Forward ribs mocked up



Forward rib detail



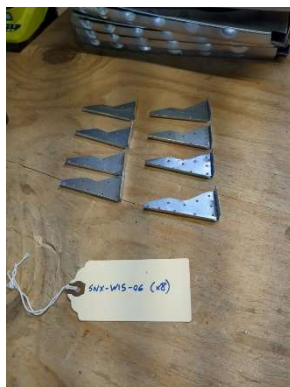
Forward rib with gussets attached



Gussets installed



SNX-W15-07



SNX-W15-06

Wing Rib Prep – Part 5

June 25, 2024 | Hours Worked: 2.53

Parts Used: SNX-W15-05, SNX-W15-08, SNX-W15-09

Finished up trimming, match-drilling, and deburring -03 and -04 ribs. Still need to rivet. -08 and -09 forward root ribs completed.



Gussets clecoed



Root rib trimmed



Root rib trimmed

Wing Rib Prep – Part 6

June 26, 2024 | Hours Worked: 0.55

Parts Used: SNX-W15-03, SNX-W15-04, SNX-W15-05, SNX-W15-06, SNX-W15-07

Finished riveting -03 and -04 forward ribs.



Gussets riveted



Gussets riveted

SNB-W14: Wing Rib Installation

Wing Rib Spacers – Part 1

June 21, 2024 | Hours Worked: 1.30

Parts Used: 0.032 Sheet, 0.5x0.125x114 Bar, SNX-W14-02, SNX-W14-03

Creation of -02 and -03 spacers from stock



-02 and -03 rib spacers



-02 and -03 rib spacers

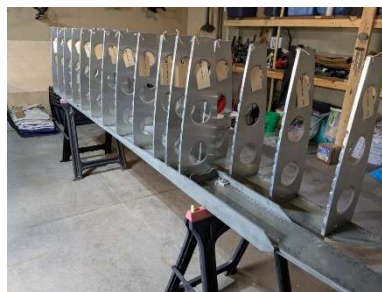
Wing Rib Spacers – Part 2

June 22, 2024 | Hours Worked: 3.23

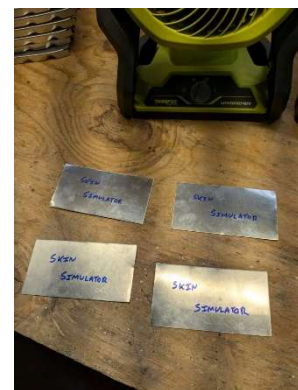
Mockup assembly of aft ribs, center spacers, and web spacers to spars and all pilot holes drilled through components. Creation of “skin simulators”. Need to check rib position yet. RH aileron bell crank assembly lubricated with white lithium.



Main Spar – center spacer –
web spacer – aft rib



Aft ribs clecoed into place



“Skin simulators”

RH Wing Rib Assembly – Part 1

June 26, 2024 | Hours Worked: 1.32

Mockup of forward ribs on R/L wing



Wing rib mockup



Wing rib mockup

RH Wing Rib Assembly – Part 2

June 26, 2024 | Hours Worked: 2.72

Squared wing on level workbench using scrap wood and 3 levels chordwise. Levels blocked up with 2x4 on rear spar to ensure contact with spar cap peak. Up drilled aft ribs to rear spar holes and clecoed into place.



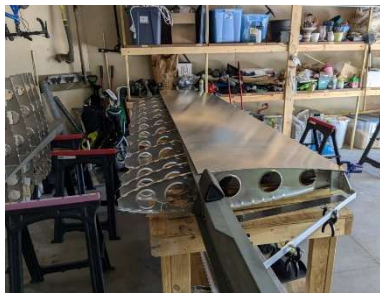
Skin mockup

Set rear spar attach hole at
WS19

Rear spar alignment detail



Wing leveling



Aft upper skin mockup

RH Wing Rib Assembly – Part 3

July 13, 2024 | Hours Worked: 9.55

Parts Used: Heyco 2030, Heyco 2820, SNX-W14-02, SNX-W14-03, SNX-W15-03, SNX-W15-04, SNX-W15-05, SNX-W16-03, SNX-W16-04, SNX-W16-05, SNX-W16-06, SNX-W21-01R, SNX-W23-08, SNX-WC02-01R

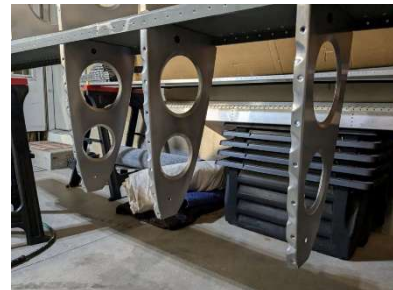
Took apart RH wing box down to spars. Deburred and cleaned both main and rear spar. Began assembling wing ribs starting from #12 and working inboard. Deburred all holes in both forward and aft ribs, scotchbried scratches, and cleaned with acetone. Forward ribs had holes dimpled for forward skin. Forward/Aft ribs #3-#12 complete. Lightning holes in aft side of forward ribs upsized to 3/8" to install Heyco 2030 snap bushing for wiring runs.



Ready to disassemble



Rib installation starting from outboard side



Forward ribs dimpled



#5 rib installed



#4 rib installed with pitot heater controller



Spars deburred



Pitot tubing/wiring support
plate



Ribs #3-12 installed

RH Wing Rib Assembly – Part 4

July 14, 2024 | Hours Worked: 0.90

Parts Used: SNX-W15-01, SNX-W15-02, SNX-W16-01R, SNX-W16-02, SNX-W23-08

Completed prep and installation of #1 and #2 forward/aft ribs and installation onto main spar. Tubing support plate installed on both forward ribs. Dimpling skipped on #1 forward rib per plans in preparation of doubler installation.



Ribs #1 and 2 installed

RH Wing Rib Assembly – Part 5

July 16, 2024 | Hours Worked: 0.58

Parts Used: SNB-W14-01R, SNX-WC03-01R

Riveted rear spar onto wing box. RH wing rib installation complete



RH rib installation complete

LH Wing Rib Assembly – Part 1

July 29, 2024 | Hours Worked: 2.32

Assembled LH ribs to main spar and clecoed in place. Rear spar attached to aft ribs and up drilled to #30. Rear spar set at 19" from wing station and locked into place with brace. Forward and aft ribs up drilled to #30 at main spar



Ribs clecoed in place



19" wing station established



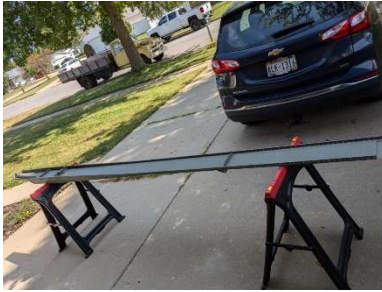
Rear spar locked square

Forward and aft spars
updrilled

LH Wing Rib Assembly – Part 2

August 23, 2024 | Hours Worked: 1.28

Continued to disassemble LH wing down to sub assemblies. Deburred main spar all sides.



Main spar stripped

LH Wing Rib Assembly – Part 3

August 24, 2024 | Hours Worked: 2.75

Parts Used: Heyco 2030, SNX-W15-01, SNX-W15-02, SNX-W15-03, SNX-W15-04, SNX-W15-05, SNX-W16-01L, SNX-W16-02, SNX-W16-03, SNX-W16-04, SNX-W16-05, SNX-W23-08, SNX-WC02-01L

Attached W17-01L assembly to main spar. Bolt direction altered from plans to account for rivet interference. Starting inboard and working outboard, attached forward and aft ribs 1-5 to main spar and riveted into place. Forward ribs scotchbried, acetoned, deburred, and dimpled. Aft ribs scotchbried, acetoned, and deburred. Aft-most lightning holes in forward ribs upsized to 3/8" for snap bushings. W23-08 support plate attached to forward #1 rib for wiring harness.



LH forward root rib installed



LH aft root rib installed

Tubing support plate installed
on #1 forward rib



#5 aft rib installed



#5 forward rib installed



LH rib installation in progress

LH Wing Rib Assembly – Part 4

August 29, 2024 | Hours Worked: 3.49

Parts Used: Heyco 2030, SNB-W14-01L, SNB-W17-01L, SNX-W14-02, SNX-W14-03, SNX-W15-05, SNX-W16-06, SNX-W21-01L, SNX-WC03-01L

Completed assembly of LH wing rib installation by prepping and riveting forward and aft ribs #6 – #12. Rear spar deburred, cleaned, and riveted to rib assembly. LH aft root rib riveted to rear spar.



LH rib installation complete

LH aft root rib riveted to rear
sparLH wing rib installation
completeLH wing rib installation
complete

SNX-W13: Rear Spar Details

Previous Wing Work Inspection – Part 1

May 10, 2024 | Hours Worked: 1.62

Parts Used: SNX-W13-05L, SNX-W13-05R, SNX-Z01-03 (96)

Verification of previous work and prep for B-model conversion. Creation of -05L/R



Main spar tip clip



Main spar tip clips



Main spar tip clip

SNX-W12: Rear Spar Assembly

Previous Wing Work Inspection – Part 2

May 10, 2024 | Hours Worked: 1.33

Inspection of rear Spar assemblies and removal of old W13-01R/L attach plates in preparation of new ones supplied with conversion kit.



LH rear spar tip



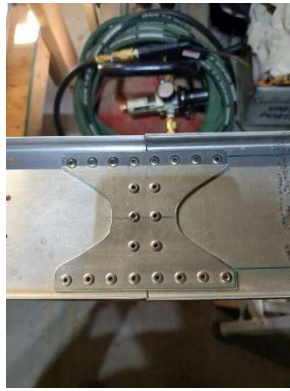
Rear spar



Rear spar



Rear spars



Older style rear spar splice plate



Aileron pushrod doubler



Cutout for aileron counterweight

Wing Conversion Work – Part 1

May 11, 2024 | Hours Worked: 1.30

Parts Used: SNX-W12-01L, SNX-W12-01R, SNX-W12-02L, SNX-W12-02R, SNX-W12-03L, SNX-W12-03R, SNX-W12-04, SNX-W13-04, SNX-W13-05L, SNX-W13-05R

Installation of W13-05R/L Tip Rib Attach Angles and final prep for -WC03.



Root attach plates removed for
conversion prep



RH tip attach angle



LH tip attach angle

SNX-W11: Main Spar Details

Main Spar Part Creation – Part 1

May 14, 2024 | Hours Worked: 5.20

Parts Used: 1x1x0.125x96 Angle, 2x2x0.178x96 Angle, SNX-W11-01, SNX-W11-02, SNX-W11-02L, SNX-W11-02R, SNX-W11-06, SNX-W11-06L, SNX-W11-06R, SNX-W11-11

Creation of main spar parts



Lots of Main Spar Parts

SNX-W10: Main Spar Webs

Previous Wing Work Inspection – Part 3

May 15, 2024 | Hours Worked: 1.19

Parts Used: 0.032 Sheet, SNX-W10-04L, SNX-W10-06, SNX-W10-07, SNX-Z01-03 (96)

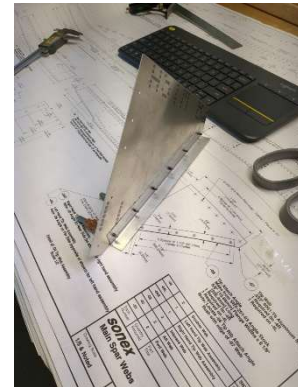
Verification of previous work and manufacture of -06 and -07



Inspection of wing tip rib



Trimming new wing tip web



Assembled new wing tip web rib

SNX-W09: Main Spar Caps

Previous Wing Work Inspection – Part 4

May 15, 2024 | Hours Worked: 0.24

Verification of previous work and sanding of -02R after replacement.



Checking spar caps

SNX-W08: Main Spar Assembly

RH Main Spar Assembly – Part 1

May 17, 2024 | Hours Worked: 7.00

Start of assembly of main spar (RH side). Discovered oblong holes on spar web marked right side and will need to replace. Used LH spar web on RH assembly. RH upper spar cap was already drilled but

needed to drill lower spar cap. All webs clecoed together. Need to final drill miscellaneous angles and attachments then disassemble, deburr, and prep for final riveting.



Clecoing the tip



Inboard end of spar



RH main spar coming together



RH main spar



Inboard end of spar



Spar outboard end

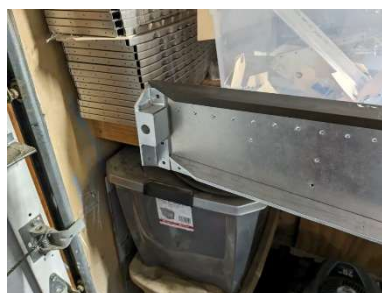
RH Main Spar Assembly – Part 2

May 21, 2024 | Hours Worked: 5.28

More component assembly of RH spar. Laid out, up drilled, and clecoed upper/lower stiffeners, vertical stiffeners, root rib attach blocks, wing attach block, and tie down angle. Ready for complete disassembly and deburr/countersink.



RH root rib attach angle
(forward side)



RH End Wing Attach Block



RH upper, lower, and vertical
stiffeners



RH root wing attach assembly
and root rib attach angle



RH tie down bracket



RH tip web assembly



RH outboard vertical stiffener



Spar sandwich



RH main spar

RH Main Spar Assembly – Part 3

May 24, 2024 | Hours Worked: 4.49

Disassembled RH main spar stack and began prepping parts for primer (deburring and countersinking)



Deburring and countersinking

RH Main Spar Assembly – Part 4

May 25, 2024 | Hours Worked: 2.18

Continuation of RH spar parts prep.



Final spar prep



Final spar prep

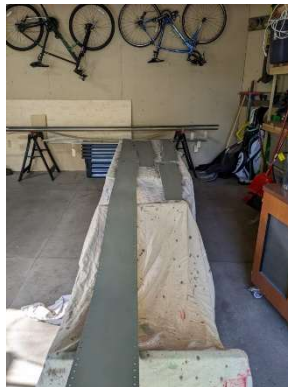
RH Main Spar Assembly – Part 5

May 25, 2024 | Hours Worked: 3.82

Prep and priming of RH Main Spar Components.



Priming the RH main spar parts



Priming the RH main spar parts



Priming the RH main spar parts

RH Main Spar Assembly – Part 6

May 26, 2024 | Hours Worked: 2.07

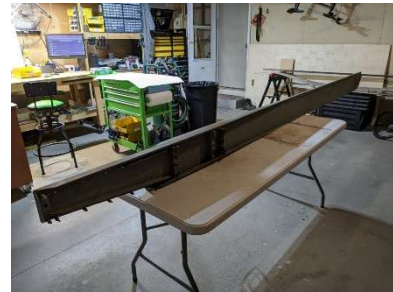
Priming of small RH main wing spar parts and final mockup of RH main spar. Ready for riveting.



Small parts primed



Main spar mockup



Main spar mockup



Main spar mockup



Main spar mockup



Main spar mockup

RH Main Spar Assembly – Part 7

May 28, 2024 | Hours Worked: 2.00

Started riveting RH Main Spar. Alternated top and bottom rows and accomplished all rivets between top spar cap and upper stiffener angle. Overall probably 25% riveted.



First "real" rivets of the project



Wing attach block bolted



Flush rivets started

RH Main Spar Assembly – Part 8

May 29, 2024 | Hours Worked: 2.50

More RH main spar riveting. Drilled out 7 “oopses”



More riveting progress

RH Main Spar Assembly – Part 9

May 30, 2024 | Hours Worked: 5.75

Parts Used: AN3-4A, AN3-5A, AN3-6A, AN3-7A, AN365-1032A, AN960-10, MS24694-S56, SNX-W09-01R, SNX-W09-02R, SNX-W10-01, SNX-W10-02, SNX-W10-03, SNX-W10-04R, SNX-W10-05, SNX-W11-01, SNX-W11-02R, SNX-W11-06R, SNX-W11-08, SNX-W11-09, SNX-W11-10R, SNX-W11-11, SNX-WC01-06R, SNX-WC01-07R, SNX-WC02-01R

Completion of the riveting and bolting of the RH spar. Rivets finished, blemishes primed, and all attach angles bolted and final torqued. Did not bolt spar blocks on and clecoed left in tip web.



RH main spar complete



RH main spar complete



RH main spar complete



RH main spar complete



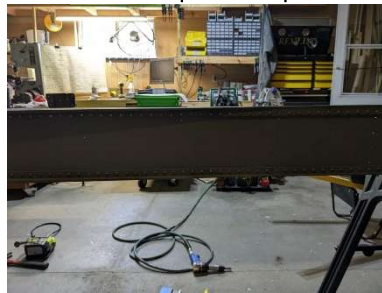
RH main spar complete



RH main spar complete



RH main spar complete



RH main spar complete



RH main spar complete



RH main spar complete



RH main spar complete



RH main spar complete



RH main spar complete



RH main spar complete



RH main spar complete



RH main spar complete



RH main spar complete



RH main spar complete

LH Main Spar Assembly – Part 1

June 1, 2024 | Hours Worked: 3.99

Began prep of LH main spar. Up drilled new spar web to #21 while attached to spar caps using spar spacers and began mock up of all attachments. Still need to attach tip web, outside stiffener, and root rib angles.



LH main spar (aft)



LH main spar (forward)

LH Main Spar Assembly – Part 2

June 8, 2024 | Hours Worked: 4.89

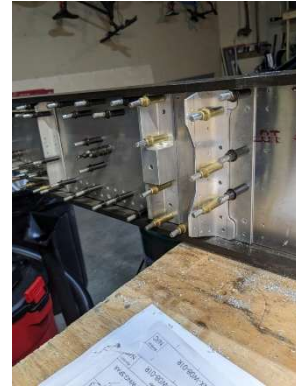
Finished mockup of LH spar, disassembled and began prepping parts for priming and final assembly. Finished prepping machine parts and webs. Part-way through dimpling. still need to countersink -02 web.



Root rib attach angle mockup



LH main spar mockup



Root rib attach angle mockup



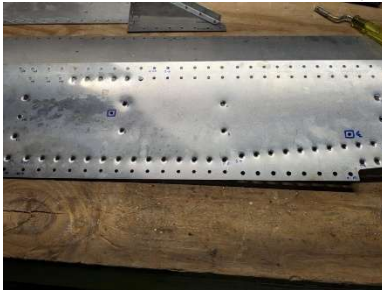
Tie down attachment mockup



Outboard stiffener mockup



Tip web mockup

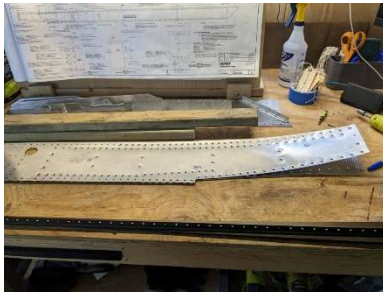


LH spar web dimpling

LH Main Spar Assembly – Part 3

June 9, 2024 | Hours Worked: 5.70

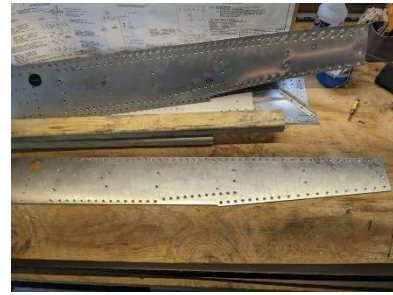
Finished LH main spar parts prep by deburring, finishing dimpling -02 web, and countersinking -03 center web and upper spar cap. All parts scoured and webs primed.



-02 LH web dimpled



LH main spar parts primed



-03 LH center web dimpled



LH upper spar cap countersunk



LH main spar parts primed

LH Main Spar Assembly – Part 4

June 11, 2024 | Hours Worked: 3.00

Final layup of LH main spar and start of riveting process. Riveted some flush rivets and bulk of mid-section of the spar. Only one oopsie.



LH spar final mockup



LH spar final mockup



LH spar final mockup



LH spar final mockup



LH main spar partially riveted

LH Main Spar Assembly – Part 5

June 12, 2024 | Hours Worked: 2.97

Finished up riveting LH main spar. Yet to complete bolts in wing attach blocks, lower stiffener, and outboard stiffener.



LH main spar rivets complete



LH main spar rivets complete



LH main spar rivets complete



LH main spar rivets complete



LH main spar rivets complete



LH main spar rivets complete

LH Main Spar Assembly – Part 6

June 13, 2024 | Hours Worked: 3.00

Parts Used: AN3-4A, AN3-5A, AN3-6A, AN3-7A, AN365-1032A, AN960-10, MS24694-S56, SNX-W09-01L, SNX-W09-02L, SNX-W10-01, SNX-W10-02, SNX-W10-03, SNX-W10-04L, SNX-W10-05, SNX-W11-01, SNX-W11-02L, SNX-W11-06L, SNX-W11-08, SNX-W11-09, SNX-W11-10L, SNX-W11-11, SNX-WC01-06L, SNX-WC01-07L, SNX-WC02-01L

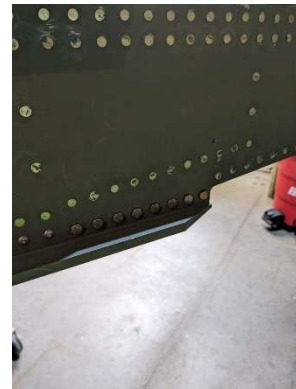
Bolts inserted into LH spar and torqued. LH Main spar complete! Spar test fit and final drilling of alignment holes and wing attach blocks will be separated into WC02 task.



LH main spar bolts



LH main spar bolts



LH main spar bolts



LH main spar bolts



LH main spar bolts



LH main spar bolts

SNB-W07: Wing Box Complete**RH Wing Assembly – Part 1**

June 27, 2024 | Hours Worked: 3.53

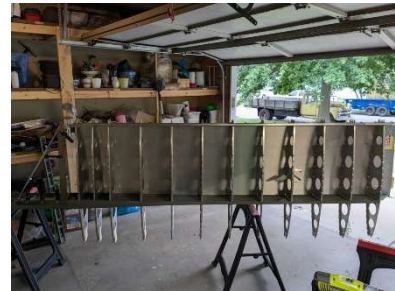
RH wing re-leveled on workbench and aft spar location set at W.S. 19" per plans. Aft upper wing skin match drilled to ribs starting at rear spar and worked forward towards main spar. Checked level again after upper aft skin clecoed in place and all looked good. Still need to drill forward spar.



Rear spar locked into place



RH aft upper wing skin located



RH aft upper wing skin located



RH aft upper wing skin located

RH Wing Assembly – Part 2

June 28, 2024 | Hours Worked: 2.22

Pilot drilled lower aft wing skin to rear spar and ribs; will wait to mockup leading edge before pilot drilling main spar. Used same process as upper aft wing skin and leveled multiple times throughout process. Still need to drill aileron rib stiffeners in lower skin and make inspection hole cover but will wait until disassembly for deburring. Wing appears to be without twist and square on both sides.



Lower aft skin pilot drilled



RH aft lower skin in progress



Inboard section leveled



RH aft lower skin in progress



Outboard section leveled



Aft skins pilot drilled

RH Wing Assembly – Part 3

July 2, 2024 | Hours Worked: 1.09

Drilled RH upper aft wing skin to main spar and clecoed leading edge in place. First glance at fit looks good.



Starting to fit top side of
forward wing skin

RH Wing Assembly – Part 4

July 4, 2024 | Hours Worked: 4.63

Finished drilling upper and lower RH Aft skins to main spar and clecoed forward skin fully to wing. Cinched forward skin into place using ratchet straps and blanketed 2x4. All RH skins in place and drilled to #40. Still need to drill lower aileron Bell crank stabilizer to lower skin and drill out wing tie down bolt. Forward skin needs landing light cut and pitot Mount configured.



RH wing skin fitting complete



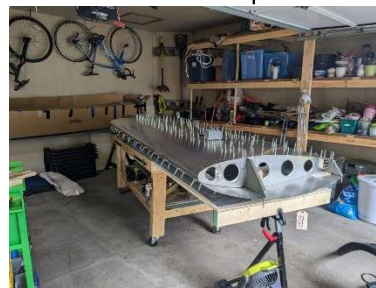
Setting lower forward skin with ratchet straps



Setting lower forward skin with ratchet straps



Setting lower forward skin with ratchet straps



RH lower forward wing skin in progress

RH Wing Assembly – Part 5

July 5, 2024 | Hours Worked: 1.18

Clecoed in place RH Root Doubler and drilled skins in preparation of root Rib installation.



RH root doubler clecoed

RH Wing Assembly – Part 6

July 6, 2024 | Hours Worked: 3.05

Parts Used: SNB-W03-02, SNB-W05-02

Trimmed fiberglass tip rib per supplemental instructions and clecoed into place. Did not fasten to main spar support angle but riveted to rear angle. Little bit of a gap on upper part of leading edge to be fixed with fiberglass at a later time. Created aileron and flap hinge halves and clecoed into place. Discovered both ailerons are wider than depicted on plans and will need to be cut at a later time.

Flap and aileron hinge halves
clecoed

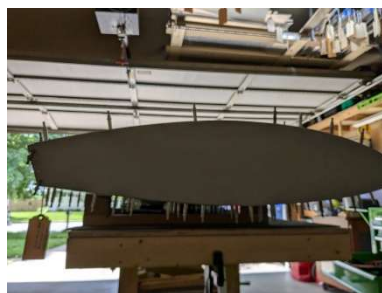
Tip rib notches



Notch for main spar



Tip rib fit



Tip rib fit



Slight gap in leading edge



Aileron hinge half clecoed

RH Wing Assembly – Part 7

July 8, 2024 | Hours Worked: 1.17

Began up drilling wing tip and forward skin to #30



Updrilling in progress

RH Wing Assembly – Part 8

July 9, 2024 | Hours Worked: 6.42

Finished up drilling upper/lower aft and forward RH wing skins. Removed upper aft wing skin and forward wing skin to drill aileron bell crank attach angles into aft lower wing skin and began drilling wing tiedown attach bolt hole. Hole is currently drilled up to 3/8" and needs to be upsized to 23/32" once skin is removed. Also up drilled root rib attach angles along with gussets and rear spar attach angle.



RH bottom wing skins updrilled

Aft root rib attach angle
updrilledForward root rib attach angle
updrilledRH upper forward skins
updrilled

RH leading edge removed



Wing tie down partially drilled

Aileron bellcrank support
angles drilled to lower skin

RH upper skin removed

RH Wing Assembly – Part 9

July 16, 2024 | Hours Worked: 6.53

Parts Used: AN365-624A, AN46-7A Eyebolt, AN530-4-6 (PK screw), AN960-616, SNB-W17-01R, SNX-W18-03

Bolted and riveted RH root rib assembly into place. Bolts in rear spar removed to allow riveting of the aft root rib to the rear spar attach angle. Deburred all holes in upper and lower aft wing skins. Both sides scotchbried and cleaned with acetone. Wing tiedown bolt installed in main wing spar mount and aileron bell crank cover plate holes drilled and secured with 4R6 screws. Lower and upper aft wing skins clecoed into place. Finished deburring forward wing skin, scotchbried and cleaned both sides with acetone. Landing light hole and pitot mount holes deburred and dressed. Began dimpling leading edge skin holes.



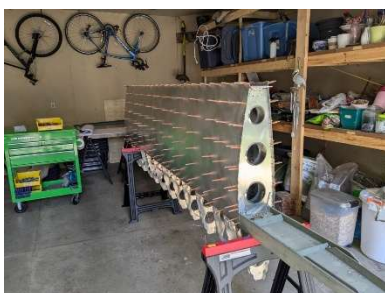
RH root ribs installed



RH lower aft wing skin prep



RH lower aft wing skin mocked up



RH aft wing skins clecoed in place



RH tie down bolt installed



RH tie down bolt installed



Aileron bellcrank inspection plate installed



RH forward wing skin prep

RH Wing Assembly – Part 10

July 18, 2024 | Hours Worked: 3.88

Parts Used: SNB-W03-02, SNB-W05-02, SNX-WC01-04, SNX-WC01-05

Finished dimpling forward wing skin and moved onto riveting RH upper and lower aft wing skins into place. Did not rivet row on main spar or rows where root doubler will be.



RH leading edge skin dimpled



RH upper aft wing skin riveting in progress



RH upper aft wing skin riveting complete



RH lower aft wing skin riveting complete

RH Wing Assembly – Part 11

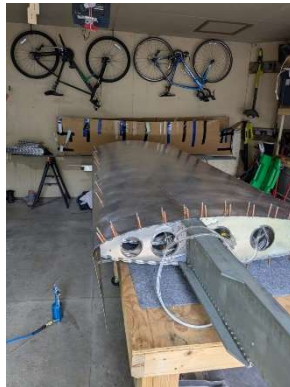
July 19, 2024 | Hours Worked: 4.10

Parts Used: AN530-4-6 (PK screw), SNB-W07-01R, SNB-W14-01R, SNX-W18-03, SNX-WC01-01

Finished up RH wing assembly by riveting forward wing skin onto wing. Started with top side, riveted entire side (starting at main spar then working to leading edge) then flipped wing and repeated process on bottom side. Left forward-most row of rivets on top side until bottom side of wing skin was clecoed into place. Drilled holes for pitot tube inspection cover and installed on lower side of leading-edge skin. RH wing skinning complete!



RH upper forward skin riveting
in progress



RH upper forward skin riveted
in place



Pitot inspection plate holes
drilled



Pitot inspection plate complete



RH wing skin riveting complete

RH Wing Assembly – Part 12

July 20, 2024 | Hours Worked: 0.43

RH root doubler deburred and clecoed onto wing. Wing tip clecoed into place as well.



RH wing box complete

LH Wing Assembly – Part 1

July 30, 2024 | Hours Worked: 1.85

Upper aft skin aligned into place. Began pilot drilling skin starting at center of rear spar and working outwards.



Starting to pilot drill LH upper aft skin

LH Wing Assembly – Part 2

August 6, 2024 | Hours Worked: 5.38

Finished pilot drilling upper aft wing skin to wing rib assembly including main spar row. Flipped wing over, re-leveled, and fit/pilot drilled lower wing skin to rib assembly. Aileron bell crank supports drilled and clecoed into upper aft skin.



LH upper aft wing skin clecoed in place



LH aft lower wing skin clecoed in place



Main spar row of aft wing skins clecoed in place

LH Wing Assembly – Part 3

August 8, 2024 | Hours Worked: 2.08

LH forward wing skin (top side) clecoed onto main spar and upper side pilot drilled into place.



LH forward wing skin pilot
drilling in progress

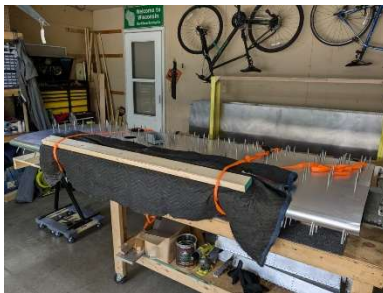


LH forward wing skin pilot
drilling complete on top side

LH Wing Assembly – Part 4

August 9, 2024 | Hours Worked: 1.92

Pilot drilled and clecoed bottom side of forward wing skin to LH wing. Forward-most row of holes to go.



Ratcheting forward wing skin in
place



LH forward wing skin clecoed
into place

LH Wing Assembly – Part 5

August 10, 2024 | Hours Worked: 2.49

Parts Used: SNB-W03-02, SNB-W05-02

Created W05-02 and W03-02 hinge halves from M3 piano hinge and pilot drilled/clecoed to LH wing. LH doubler clecoed onto wing and holes for root rib drilled into wing skins. Forward most row of lower forward skin holes pilot drilled and clecoed into place.



Flap hinge half pilot drilled



Aileron hinge half pilot drilled

LH wing doubler (top)
attachedLH wing doubler (bottom)
attached

LH Wing Assembly – Part 6

August 13, 2024 | Hours Worked: 0.82

Trimmed LH wing tip tail end where it attaches to rear spar and notched top edge for main spar. Trimmed a 1/2" channel in the bottom edge of the wing tip to accommodate rib flanges pointing outwards. Wing tip pilot drilled to wing skins.



LH wingtip trimmed



LH wingtip pilot drilled



LH wingtip pilot drilled

LH Wing Assembly – Part 7

August 18, 2024 | Hours Worked: 5.15

Up drilled top side of LH wing and most of bottom side. Yet to up drill forward two most rows of rivets on lower forward skin.



LH upper wing skin partially drilled



LH upper side updrilling in progress



LH wing upper wing skins updrilled



LH underwing updrilling in progress



LH underwing updrilling in progress

LH Wing Assembly – Part 8

August 22, 2024 | Hours Worked: 1.20

Last two rows of rivets on lower side of forward skin up drilled. LH forward and aft upper wing skins removed to final drill aileron bell crank support holes and tie down bolt hole. Finally, lower aft skin removed from wing rib assembly.



LH wing skin drilling complete



Aileron bellcrank support holes drilled



Tie down bolt hole drilled



LH wing partially disassembled

LH Wing Assembly – Part 9

August 29, 2024 | Hours Worked: 1.37

Deburred, scotchbried, and cleaned upper wing skin with acetone.



LH upper wing skin deburred
and cleaned

LH Wing Assembly – Part 10

August 30, 2024 | Hours Worked: 4.33

Parts Used: AN365-624A, AN46-7A Eyebolt, AN960-616

Deburred and cleaned aft lower and forward wing skins along with root doubler. Tiedown hole in lower skin up drilled to 3/4" per plans. LH forward skin dimpled. Leveled LH rib assembly on workbench and reattached alignment angle between main and rear spars. Clecoed aft lower and upper wing skins to LH rib assembly. Tiedown bolt installed and torqued to specs (16 ft-lbs.).



LH lower aft wing skin
deburred and cleaned



LH root doubler deburred and
cleaned



LH tie down bolt hole updrilled
to 3/4"



LH forward wing skin deburred
and cleaned



LH forward wing skin dimpled



LH tie down bolt torqued



LH tie down bolt torqued



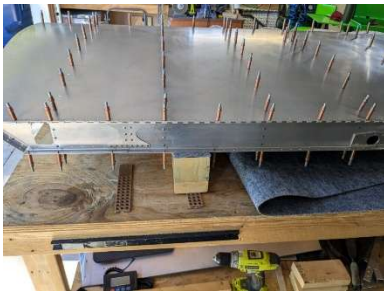
LH wing skin installation in progress

LH Wing Assembly – Part 11

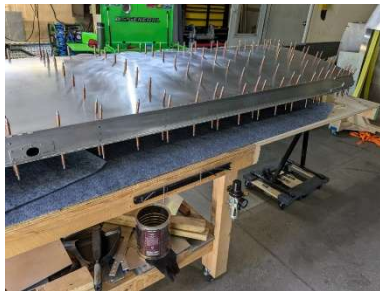
August 31, 2024 | Hours Worked: 5.07

Parts Used: SNB-W03-02, SNB-W05-02, SNB-W14-01L, SNX-WC01-01, SNX-WC01-04, SNX-WC01-05

Deburred LH flap and aileron hinge halves and clecoed into place. Clecoed top of LH forward wing skin into place then flipped wing and ratcheted lower side into place. LH root doubler clecoed into place on top. Clecoed lower side into place. Re-flipped LH wing and riveted upper aft and upper half of forward wing skin. Partially riveted lower aft wing skin to assembly.



LH aileron hinge deburred and clecoed in place



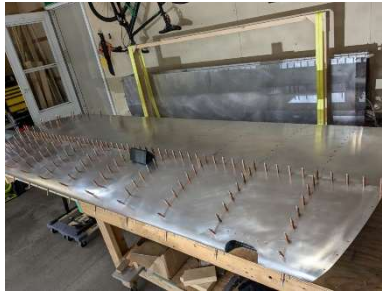
LH flap hinge deburred and clecoed in place



Ratcheting LH forward wing skin into place



LH forward wing skin clecoed into place with root doubler



LH upper aft wing skin riveting complete



Upper half of LH wing skin riveting complete

LH Wing Assembly – Part 12

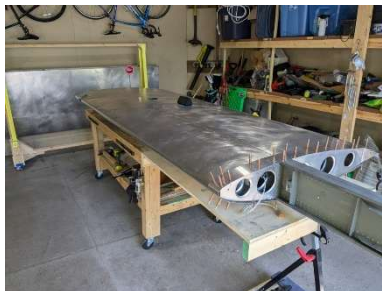
September 1, 2024 | Hours Worked: 1.33

Parts Used: AN530-4-6 (PK screw), SNB-W07-01L, SNX-W18-03

Finished riveting lower side of LH wing including aft and forward skins. Installed aileron bell crank inspection cover plate using PK screws. LH wing complete!



LH bottom side wing riveting in progress



LH wing riveting complete



LH aileron bellcrank inspection cover installed

SNB-W06: Flap Details

Flap Issues

September 1, 2024 | Hours Worked: 0.77

Began flap details by examining already assembled flaps. Flap drive plate needs to be replaced per wing conversion instructions. Upon removing legacy version flap drive plate, noticed holes do not line

up and inboard-most rib location is different between the two sets. Will consult Sonex tech support for potential solutions.



Legacy flap drive plate



Legacy flap drive plate removed



Location of new inboard rib on flap



Inboard flap rib location marked

Flap Rebuild – Part 1

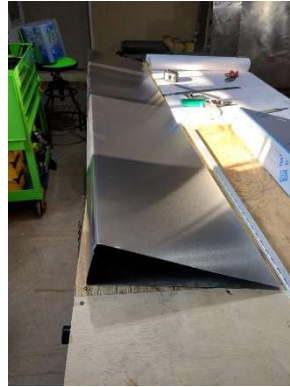
September 11, 2024 | Hours Worked: 1.68

Parts Used: SNB-W06-01L, SNB-W06-01R, SNX-Z02-02 (72)

After discussion with Sonex tech support, decided to scrap previously built flaps due to notch-out of skin on forward edge. Trimmed and deburred Z02-02 flap skin stock per plans to create -01L/R flap skins. Notches for flap pushrod yet to be cut. Mocked up -04 flap drive plates to flap ribs and pilot drilled. Discovered that AN366F-428 nut plates were incorrectly labeled and will need to order correct ones.



-01R flap skin trimmed



-01L flap skin trimmed

Flap Rebuild – Part 2

September 12, 2024 | Hours Worked: 1.68

Parts Used: SNB-W06-06L, SNB-W06-06R

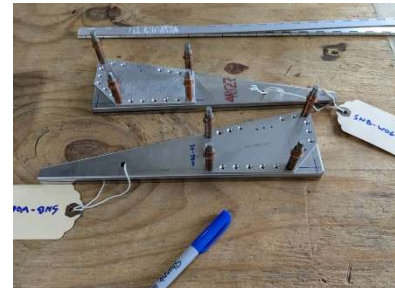
Pilot drilled and up drilled -04 flap drive plates to -02 and -03 flap ribs. Countersunk flap drive plates for CCC-44 rivets. Deburred assemblies and clecoed together pending receipt of nut plates. Cut -06L/R hinge halves from -P3 piano hinge and pilot drilled hinge halves per plans. Although hinge halves have different part numbers, no differences noted between pilot hole locations.



Updrilling flap drive plates



Flap drive plates countersunk



Inboard flap ribs clecoed pending nutplate installation



-06L/R hinge halves cut and
pilot drilled

Flap Rebuild – Part 5

September 14, 2024 | Hours Worked: 0.92

Parts Used: AN366F-428A, SNB-W06-04, SNB-W06-05L, SNB-W06-05R, SNX-W06-02, SNX-W06-03

Up drilled drive plate attach holes to 1/4" for AN4 hardware and clecoed AN366F-428A nutplates into place. Disassembled both drive plate ribs, deburred, and riveted assemblies together



Drive ribs clecoed



Front side of completed drive
ribs



Back sides of drive ribs



Nutplate clecoed on LH flap
drive rib



Nutplate clecoed on RH Flap
drive rib assembly

SNB-W05: Flap Assembly

Flap Rebuild – Part 3

September 12, 2024 | Hours Worked: 5.35

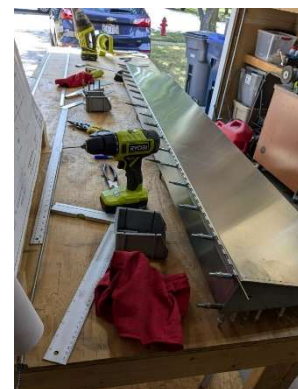
Laid out flap rib holes on RH flap skin, center punched, and drilled. Bottom side skin cutout for flap pushrod marked. Lined up ribs under flap skin and began pilot drilling ribs starting with top side, upper hole on forward side, then hinge-half strip, and finally lower side. Set $1/16$ " hinge half offset by using skinny ruler. Pilot drilled lower side of flap then finished drilling forward edge. After pilot drilling all holes on RH flap assembly, up drilled all holes to #30. Then repeated process for LH flap assembly. Both flaps need deburring before final assembly.



Drive plate underside notch-
out laid out



RH flap tip side pilot drilled



RH flap hinge half pilot drilled



RH flap lower side pilot drilled



RH flap pilot drilling complete



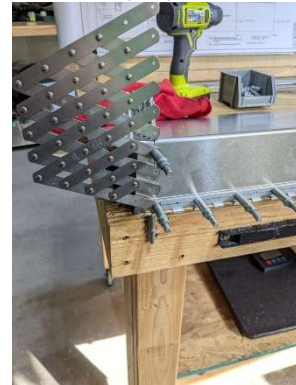
RH flap updrilled



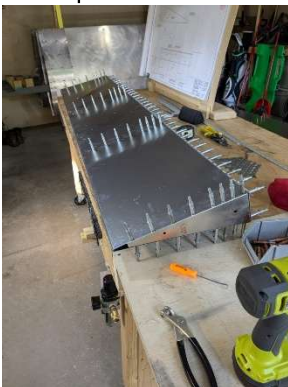
LH flap rib lines marked and pilot drilled



LH flap hinge half pilot drilling in progress



Drill guide for front side flap rib holes



LH flap pilot drilling complete

Flap Rebuild – Part 4

September 13, 2024 | Hours Worked: 2.90

Disassembled both LH and RH flap assemblies and deburred all parts. Cut out holes in -01L/R flap skin for flap tie rod clearance and reassembled flap assemblies with clecoes. Scotchbried and

acetoned all parts. Both assemblies ready for final riveting pending completion of SNB-W06-05L/R drive plate assembly nutplate installation.



LH flap disassembled



LH flap skin cut for pushrod clearance



LH flap deburred and reassembled



RH flap disassembled



RH flap skin cut for pushrod clearance



LH flap drive rib



LH flap drive rib



Flap deburring and prep complete

Flap Rebuild – Part 6

September 14, 2024 | Hours Worked: 1.87

Parts Used: SNB-W05-01L, SNB-W05-01R, SNB-W06-01L, SNB-W06-01R, SNB-W06-05L, SNB-W06-05R, SNB-W06-06L, SNB-W06-06R, SNX-W06-02, SNX-W06-03

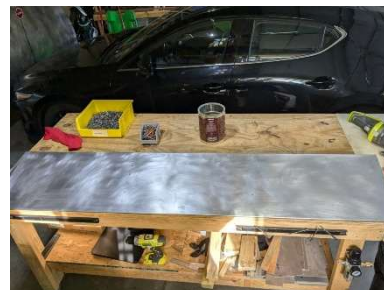
After completion of the drive rib assemblies, reclecoed assemblies together and completed final riveting. Flaps installed onto wings and appear to fit well.



LH flap assembly complete



LH flap assembly installed



RH flap assembly complete



RH flap assembly installed

SNB-W04: Aileron Details

Aileron Correction

September 1, 2024 | Hours Worked: 1.50

Inspected previously assembled ailerons. Noted that the overall width of existing ailerons is larger than plans called for. Drilled out rivets in tip rib and trimmed skin to proper dimensions. Removed lead counterweights from ailerons and tested fit with wings. Noticed that aileron piano hinges are installed incorrectly and will likely need to be replaced.



Top side of aileron with trim line



Aileron tip rib removed



Aileron tip skin trimmed

Aileron Hinge Replacement

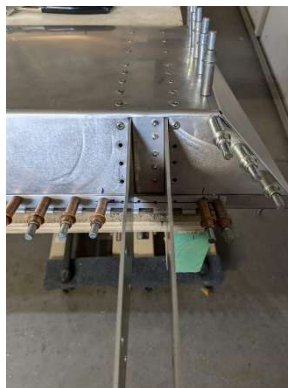
September 3, 2024 | Hours Worked: 3.60

Parts Used: SNB-W04-06R

Examined RH aileron assembly. Determined that aileron hinge half was not to plan and was improperly aligned with top edge. Drilled out hinge half and replaced with new hinge using strap duplicator to match holes. Levelled assembly on work bench and finished riveting on counterweight supports. Partially completed aileron assembled to wing and checked freedom of movement: 11 degrees down and 19.5 degrees up movement



Redrilling hinge half with strap duplicator



RH counterweight bracket riveting



Hinge half finished

RH Aileron Inspection

September 5, 2024 | Hours Worked: 0.73

Parts Used: SNB-W04-01R, SNB-W04-05R, SNB-W04-09, SNX-W04-02, SNX-W04-03, SNX-W04-04, SNX-W04-07, SNX-W04-08, SNX-Z02-01 (40)

Inventory of RH Aileron previous work.



RH aileron previous work
inspection

LH Aileron Inspection

September 5, 2024 | Hours Worked: 1.53

Parts Used: SNB-W04-01L, SNB-W04-05L, SNB-W04-06L, SNB-W04-09, SNX-W04-02, SNX-W04-03, SNX-W04-04, SNX-W04-07, SNX-W04-10L, SNX-Z02-01 (40)

Inventory of existing LH aileron assembly. As noted with RH aileron, skin trimmed slightly longer than specified in plans. Drilled out existing LH aileron tip rib and marked and trimmed LH aileron skin. Two rivets found missing from -06L hinge half and finished in place. LH aileron skin then prepped and deburred for new tip rib installation.



LH aileron skin trim line (lower)



-06L hinge half rivets finished



LH existing aileron tip rib
removed



LH aileron skin trimming
complete



LH aileron skin trim line
(forward)

SNB-W03: Aileron Assembly

Aileron Tip Ribs – Part 2

September 5, 2024 | Hours Worked: 1.95

Parts Used: SNB-W03-01R, SNB-W04-01R, SNB-W04-05R, SNB-W04-06R, SNB-W04-09, SNX-W04-02, SNX-W04-03, SNX-W04-07, SNX-W04-10R

Due to geometry of SNB version of tip rib, fabricated .032" spacer and installed in between tip rib and forward part of RH aileron skin. Up drilled RH aileron tip rib and riveted to RH aileron assembly. Used rotary tool to slightly enlarge counterweight opening in RH rear spar. Scotchbried and acetoned RH completed RH aileron assembly and installed onto RH wing. RH aileron complete minus balancing (pending paint).



.032" spacer installed in RH
aileron tip rib



RH aileron tip rib updrilled



RH aileron tip rib riveted



RH aileron installed on RH wing



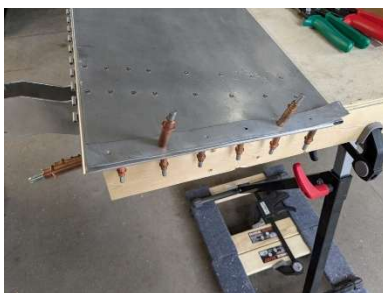
RH aileron tip rib riveted

Aileron Tip Ribs – Part 1

September 5, 2024 | Hours Worked: 1.40

Parts Used: SNB-W03-01L, SNB-W04-01L, SNB-W04-05L, SNB-W04-06L, SNB-W04-09, SNX-W04-02, SNX-W04-03, SNX-W04-07, SNX-W04-10L

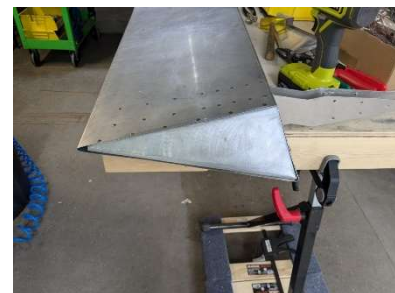
Was able to save W04-10L tip rib from previous work and use strap duplicator to mark hole locations in new spots in aileron skin. Up drilled, deburred, and riveted LH aileron tip rib onto LH aileron assembly. Die grinded stained spots on LH aileron skin then scotchbried and cleaned LH aileron assembly. Temporarily installed aileron onto LH wing assembly (pending paint, installation of counterbalance, and balancing of the LH aileron assembly).



LH aileron tip rib hole locations matched with old skin segments



LH aileron tip rib clecoed in place



LH aileron tip rib riveted



LH aileron scotchbried and
cleaned



LH aileron installed (minus
counterbalance)

Aileron Balancing

February 24, 2026 | Hours Worked: 0.95

Categories: SNB-W03: Ailerons Tags: SNX-W04-08

Assembled paint fixture to hang ailerons from. Suspended RH aileron from fixture and bolted lead counterweight onto bracket. Checked levelness per plans and did not need to remove any material. Repeated process for LH aileron and drilled one 3/16" hole on top of lead counterweight approximately 1/2" deep to achieve balance. Ailerons now complete and ready to be mounted.



RH aileron balance check



Checking levelness with
counterweight attached



Drilling out LH aileron
counterweight



Ailerons complete

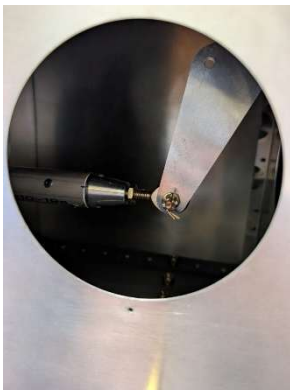
SNB-W02: Wing Finishing

Wing Pushrod Installation – Part 1

June 14, 2025 | Hours Worked: 0.98

Parts Used: AN3-10, AN310-3, AN4-7A, AN960-10, AN970-3, MS24665-132, SNB-C03-01, SNB-C03-03

Removed aileron bellcrank access covers from wings and inserted C03-01 main aileron pushrods into wings. Attached to aileron bellcrank with AN3 hardware and castle nut. Installed C03-03 flap pushrods onto flaps with AN4 hardware.



Main aileron pushrod installed

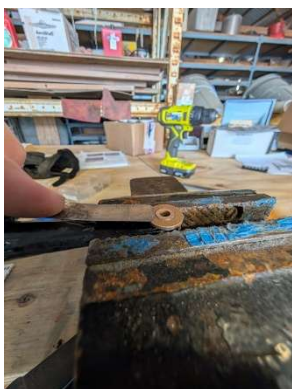
Final Wing Assembly

March 21, 2026 | Hours Worked: 4.40

Parts Used: AN23-10, AN3-6, AN310-3, AN970-3, MS24665-132, MS24665-5, SNB-C03-02, SNB-W02-01L, SNB-W02-01R, SNB-W03-01L, SNB-W03-01R, SNB-W05-01L, SNB-W05-01R, SNB-W07-01L, SNB-W07-01R, Symco SF-610-6, Symmco ST-1020-2

Removed wings from wing stand and set onto sawhorses. Assembled aileron push rods and filed thrust bearings down for 0.01" clearance between bushing and bell crank plate and installed assembly onto LH aileron. Slightly enlarged counterweight opening in rear spar for bolt clearance then attached LH aileron to wing with piano hinge rod. Drilled cotter pin holes in piano hinge and installed cotter pins. Clamped rulers together to measure neutral aileron position from forward wing skin aft edge and clamped rulers to aileron. Made a 25° angle template from scrap aluminum and inserted into inspection hole to set aileron bell crank at the 25° neutral position. Adjusted aileron pushrod length to align holes then bolted pushrod to bell crank plate and tightened jam nut onto the rod end. Verified

minimum engagement of rod ends with piece of safety wire. Repeated process for RH aileron and wing. Installed LH flap onto wing with piano hinge rod then drilled and installed cotter pins. Installed flap push rod onto inboard edge of flap. Repeated process for RH flap and wing. Verified minimum 3/16" clearance between flaps and ailerons. Wing assembly complete!



Pushrod bushing filed for proper clearance and checked with feeler gauge



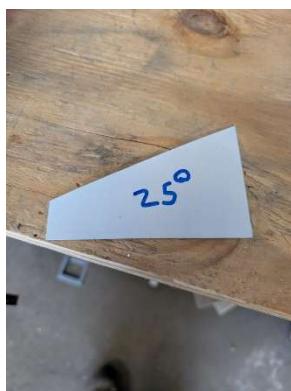
Pushrod assembly installed onto aileron



LH aileron installed with cotter pins



Neutral position set with ruler and straight edge



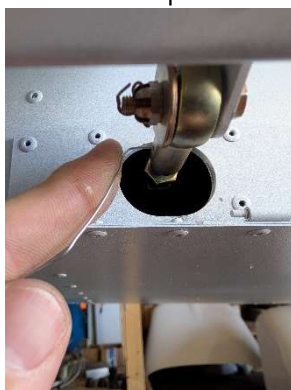
25° reference tool made from scrap



Aileron pushrod installed onto bell crank



Jam nut tightened



Minimum thread engagement checked



RH aileron installed with cotter pins



RH aileron pushrod installed
onto bell crank



Flap installed with cotter pins



Both wings complete

SNB-W01: Wing Installation

Wing Root Doublers – Part 1

June 26, 2025 | Hours Worked: 0.74

Slid wings out from fuselage (one at a time) and reinstalled wing root doublers with clecoes. Marked current edge of doublers onto wing skins with sharpie. Removed doublers then slid wings back into spar tunnel and pinned into proper place. Set wing doublers onto wings and slid them flush with fuselage side skins. Marked a second line onto the wing skins. Will use difference between the two lines to trim doublers for proper fit.



Marking doubler location onto
RH wing



Marking offset trim line onto LH
wing



Both lines drawn onto wing to
calculate wing doubler trim
amount

Wing Root Doublers – Part 2

June 27, 2025 | Hours Worked: 1.89

Measured wing root doubler trim distances off of wing skin at each rivet hole and transferred measurements onto inside edge of wing root doublers. Trimmed excess material off with snips then deburred edges. Clecoed wing root doublers onto wing and verified clearance from fuselage sides was between $1/32"$ and $1/16"$.



Marking trim line from measurements on wing skins



RH wing root doubler clecoed into place



RH wing root doubler clecoed into place



LH wing root doubler clecoed into place



LH wing root doubler clecoed into place

Wing Installation

March 23, 2026 | Hours Worked: 2.23

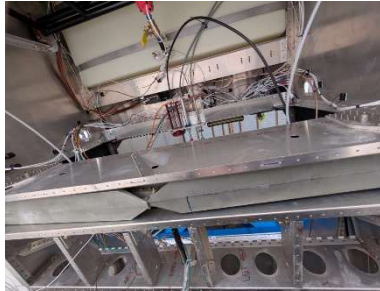
Parts Used: AN310-4, AN310-8, AN4-10, AN8-45, AN960-416, AN960-816, MS24665-208, SNB-W02-01L, SNB-W02-01R

With help, mounted left and right wing assemblies onto fuselage. Attempted to add weatherstripping on inside edges of wings but there wasn't enough clearance; will likely seal gaps with tape later on.

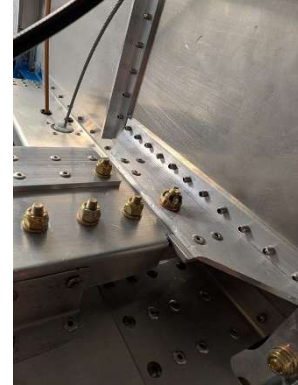
Before sliding wings fully together, connected wing root connectors and pitot/AOA connections. Opted to use drilled hardware and cotter pins for wing bolt connections. Torqued wing hardware and installed cotter pins.



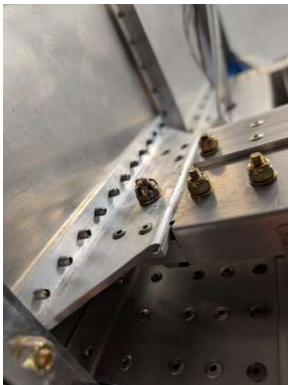
Wings attached to fuselage



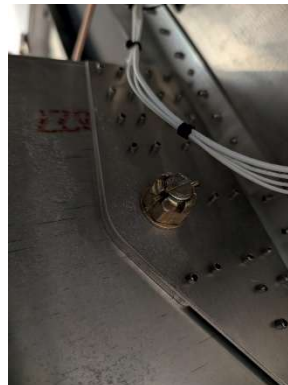
Main spar tunnel



Left rear spar bolt



Right rear spar bolt



Left front spar bolt



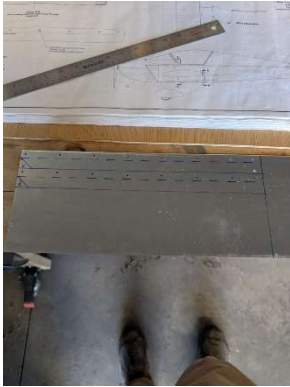
Right front spar bolt

Wing Wrap-up – Part 1

August 3, 2026 | Hours Worked: 0.80

Parts Used: SNB-W01-02L, SNB-W01-02R

Manufactured -02L and -02R flap fairings from scrap aluminum stock. Bent with tabletop bending brake. Will flight test before installing onto fuselage. Aimed landing lights in full down position per Duckworks instructions then cleaned and reinstalled landing light lenses.



Laying out flap fairings on
scrap stock



Flap fairings cut, bent, and
drilled



RH landing light lens installed



LH landing light lens installed

Wing Wrap-up – Part 2

August 20, 2026 | Hours Worked: 0.37

Cleaned wing root surfaces and wing walk doubler. Cut wing walk skateboard grip to size then applied pieces to wing walk area. Applied wing gap seal tape to both wing/fuselage joints. Wing section now complete!



Wing walk grip tape and LH wing gap tape applied



RH wing seal tape applied

Section 9: Finishing

Exterior Finishing

Color Sanding and Buffing – Part 1

August 5, 2026 | Hours Worked: 6.24

Began the process of color sanding and buffing painted surfaces. Starting with the tail, wet sanded each surface with 1000 grit sanding sponges to knock down high spots and imperfections. Avoided sanding rivets and focusing on one area too long. Sanded until surface felt smooth and most orange peel was gone. Wiped area clean then repeated process with 2000 grit sanding sponges and water. Second sanding took about 3/4 of the time of initial sanding. After sanding was complete, wiped area down again then buffed with Meguiar's M100 and DA polisher with microfiber pad. After buffing surface, wiped it down with a microfiber cloth and buffed again with Meguiar's M200 and foam polishing pad. Final wiped area with cloth. While not perfect, polishing did make a significant difference in surface smoothness and shine. Repeated this process for undersides of both wings and top of RH wing for now.



Tail surfaces color sanded and buffed



LH under wing color sanded and buffed



RH under wing color sanded and buffed



RH wing color sanded and buffed

Color Sanding and Buffing – Part 2

August 9, 2026 | Hours Worked: 1.59

Wet sanded and polished LH wing, aileron, and flaps using method previously described. Spent more time on blue paint as it shows imperfections much more than the white paint.



LH wing polished

Color Sanding and Buffing – Part 3

August 11, 2026 | Hours Worked: 1.85

Finished color sanding and polishing process with left and right side of fuselage. Used same process as previously described. Opted to not color sand blue paint on fuselage sides. Polishing complete!



RH fuselage side polished



LH fuselage side polished

Vinyl Stripe Prep

August 19, 2026 | Hours Worked: 0.79

Used 1/2" fine line tape to create layout for vinyl striping. Applied tape to wings, ailerons, tail surfaces, and fuselage sides. Temporarily applied green masking tape to fuselage sides to help guide N-number placement.



Tape applied to wing surfaces



Tape applied to fuselage and tail

Exterior Wrap-up

August 20, 2026 | Hours Worked: 2.42

Applied N-number decals to both sides of fuselage by taping decal sets to sides and “hinging” decals on top with blue painters tape. Right side worked better to prevent bubbles by cutting numbers and letters apart after taping the entire side to the fuselage. Applied pink vinyl stripe to fuselage, wings, ailerons, tail surfaces, rudder, and elevator by placing stripe right along side red 1/2” frog tape. Removed frog tape from aircraft after applying stripe. Applied parking brake, fuel, engine oil, and “no step” decals to aircraft after prepping surfaces with acetone. Exterior finishing task now complete!



LH N-number applied



RH N-number applied



Pink stripe added to tail surfaces



Pink stripe added to wing tips



Pink stripe added to fuselage



Parking brake decal applied



Oil and fuel stickers applied



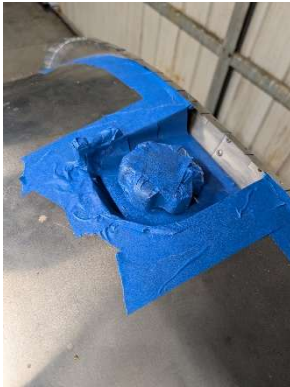
No step decal added

Painting

Black Paint Prep

August 28, 2025 | Hours Worked: 1.94

Prepped fuselage and windshield/canopy parts for black paint. Masked off glareshield and cabin area with painters tape then taped drop cloth over tape lines. Scotchbried miscellaneous canopy and windshield parts in preparation for paint.



Fuel tank filler area taped



Side panel areas taped off



Glareshield covered with kraft paper



Drop cloth fit in cabin area



Canopy and windshield parts prepped.

Black Interior Paint

September 4, 2025 | Hours Worked: 6.75

Setup paint booth and moved fuselage/canopy parts into spray booth. Cleaned all parts with pre paint prep and discovered that not all parts would fit at the same time. Sprayed two coats of primer on black fuselage parts and windshield parts followed by three coats of rat rod matte black. Let parts dust dry for 45 minutes then repeated process for miscellaneous canopy parts. Flipped canopy parts over then painted bottom of canopy parts. Finally removed masking from fuselage.



Paint booth setup



Paint booth setup



Parts setup in booth



Fuselage primed



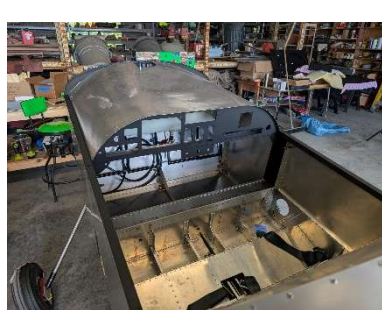
Windshield parts primed



Fuselage painted black



Windshield parts painted black



Fuselage black paint applied



Completed small parts

Fuselage Paint Prep – Part 1

October 5, 2025 | Hours Worked: 4.95

Began prepping fuselage for paint by removing tail components and setting off to the side. Removed inspection covers, pitot plumbing fittings, wing connectors, and vents from fuselage as well. Taped off edges of windshield with nice striping tape, then finished covering windshield with kraft paper and blue painters tape along with canopy sill on aft side of windshield bow. Taped off interior fuselage parts and removed aft fuselage floor for better access. Scotchbried entire fuselage and cleaned with acetone. Began taping up openings in fuselage with painters tape.



Tail surfaces removed



Tail surfaces removed



Front fuselage fixtures removed



Fuselage items set aside for prep



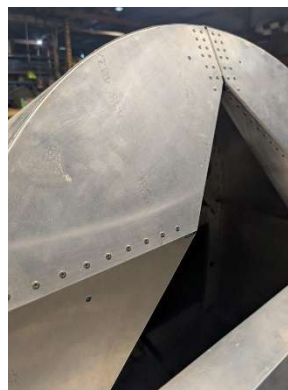
Windshield fine taped



Windshield covered



Interior components masked



Turtledeck formers prepped



Fuselage prepped and cleaned



Aft fuselage floor removed



Tail openings taped



Fuselage openings taped

Fuselage Paint Prep – Part 2

October 8, 2025 | Hours Worked: 0.95

Finished prep of the fuselage for paint by masking off the ELT tray and straps, covering the baggage area with plastic, and masking off the seating area and firewall. Fuselage now completely masked and ready for paint.



ELT tray covered



Baggage area covered



Interior covered



Firewall covered

Small Part, Flap, and Aileron Painting

October 9, 2025 | Hours Worked: 6.52

Started by prepping small parts, ailerons, and flaps for paint by treating all metal surfaces with maroon scotchbrite and fiberglass surfaces with 120 grit then 240 grit sandpaper. Blew dust off of all parts then cleaned everything with acetone. Inserted hinge pins into control surfaces to keep piano hinges clean of paint. Setup paint booth and moved all parts in. Treated all parts one last time with Eastwood's pre-paint prep and let parts sit for an hour. Applied two coats of primer and three coats of pure white to all parts. For parts that will end up all blue, applied four coats of blue after removing white parts from booth. Gun setting that worked the best were 50 psi at the regulator and 30 psi at the gun. Some contaminates from the drop cloth got on the small parts but should be fixable. In the future will not be using the canvas cloths to cover the table.



Small parts prepped for paint



Paint booth setup



Small parts painted white



Small parts painted blue



Flaps and ailerons painted white

Wing Paint Prep

October 10, 2025 | Hours Worked: 3.70

Parts Used: SNB-W20-01L, SNB-W20-01R

Prepared wings for paint in the same manner as the fuselage. At the same time, masked opening in wings and riveted wing skin doublers into place.



LH wing scotchbried and wing doubler riveted



LH wing openings covered



LH wing prepped for paint



Tip light connectors covered



RH wing prepped for paint

Tail Surfaces Paint Prep

October 11, 2025 | Hours Worked: 2.15

Cleaned, prepped, and masked tail surfaces in same manner as previous parts. Removed hinge pins from flaps and ailerons to use on other parts while painting.



Horizontal stabilizer prepped for paint



Elevator prepped for paint



Vertical stabilizer prepped for paint



Rudder prepped for paint

White Wing Paint

October 12, 2025 | Hours Worked: 5.14

Setup paint booth and painted primer and white paint onto wings using same method as flaps and ailerons. Used 3" PVC pipe and 2" PVC pipe to support ends of wings by running it through the lightning holes.



Wing paint in progress



White wing paint complete

Tail Surfaces and Fuselage White Paint

October 14, 2025 | Hours Worked: 7.27

Repeated painting process for tail surfaces and fuselage. All available components now painted white.



Tail surfaces arranged



Tail surfaces painted white



Fuselage ready for paint



Paint progress so far



Fuselage painted white

Blue Paint Prep

October 17, 2025 | Hours Worked: 4.89

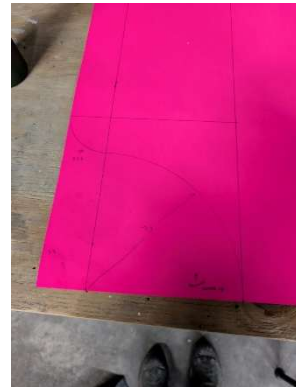
Started prepping the fuselage for blue paint by laying out lines as designed in CAD. Bottom edge of the blue will be 2" below skin overlap and taper to 0" at the aft end of the aircraft and forward vertical blue stripe is 2" from firewall edge. Radius at front of plane will be 7.5". After marking lines, used striping tape to make a clean edge then followed up with blue masking tape. Made curve template for wing tips from poster board using 7.5" radius one direction and 2.5" radius the other direction. Curves start at spar line. After design was marked on the wings, temporarily installed ailerons to transfer lines to them. Repeated taping process on wings and ailerons. After design was marked and taped, began prepping surfaces that will get blue paint by scuffing with 800 grit sandpaper per recommendation from Eastwood. Will wait to tape up drop cloths on wings and fuselage until closer to paint time. Used garbage bags to cover white parts of ailerons.



Marking transition on fuselage



Transition line taped



Making wingtip template out of posterboard



Laying out wingtip transition line on wing



Mirrored lines on bottom side of wing



Projecting lines onto ailerons



Ailerons prepped, taped, and masked



Tail fairing panels taped and prepped



Wings taped, prepped, and partially masked



Fuselage taped, prepped, and partially masked

Fuselage and Wing Blue Paint

October 18, 2025 | Hours Worked: 5.17

Final prepped wings, fuselage, ailerons, and tail fairing panels for blue paint by cleaning with pre paint prep. Setup items in paint booth then masked items while in booth. Painted in two batches just the blue color. Let paint cure for about two hours before removing mask and tape.



Wing tips painted blue



Ailerons painted blue



Fairing panels painted blue



Fuselage rolled out of booth after painting



Ailerons unmasked



Tail fairings unmasked



Fuselage painted



Fuselage painted



Fuselage painted



Wings unmasked



Wings painted

Cowl and Small Parts Paint Prep

August 9, 2026 | Hours Worked: 6.54

Prepped the last of the unpainted parts for paint. Sprayed upper and lower cowls with high-build primer then worked on sanding small imperfections and pin holes with 600 grit sandpaper. Both cowls got three coats of primer. Scotchbried and cleaned rear fuselage floor. Removed gear leg fairings and prepped for paint in the same manner along with rudder trim tab, flap fairings, and the oil door. Removed forward fuselage floor and spinner from the airplane and prepped those for paint as well.



Cowls removed and ready for primer



Lower cowl primed



Upper cowl primed



Aft fuselage floor prepped for paint



Forward floor removed



Forward fuselage floor prepped



Small parts prepped for paint

Cowl and Small Parts Paint

August 10, 2026 | Hours Worked: 7.42

Setup paint booth and sprayed cowls, flap fairings, trim tab, spinner, oil door, gear leg fairings, and fuselage floors. Used previous gun settings with success and applied 2 primer coats, 3 white coats, and 4 blue coats to parts. Painting complete!



Items setup in paint booth



Blue paint applied

Build Stats

Build Summary

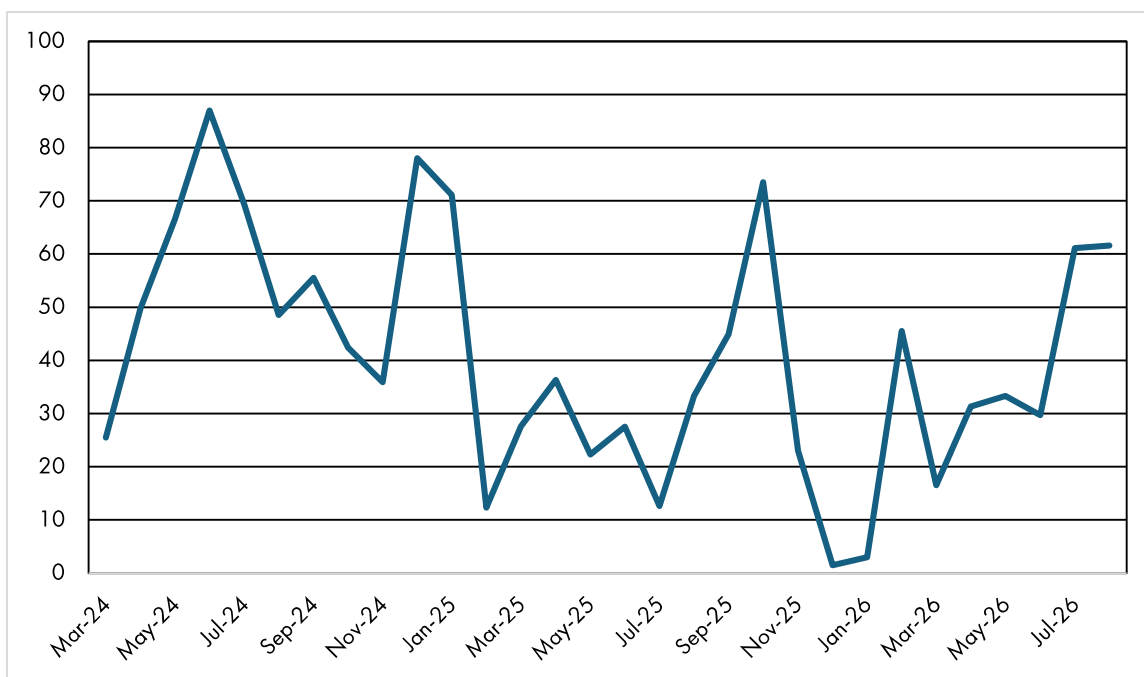
Hours Worked	1,228.95 Hours
Expenses	\$74,792.74
Pictures	2,144 Photos
Unique Parts	1,016 Parts
Rivets Pulled	9,014 Rivets*
Build Start Date	March 25, 2024
Build Completion Date	August 27, 2026

* Estimated from weight of tails

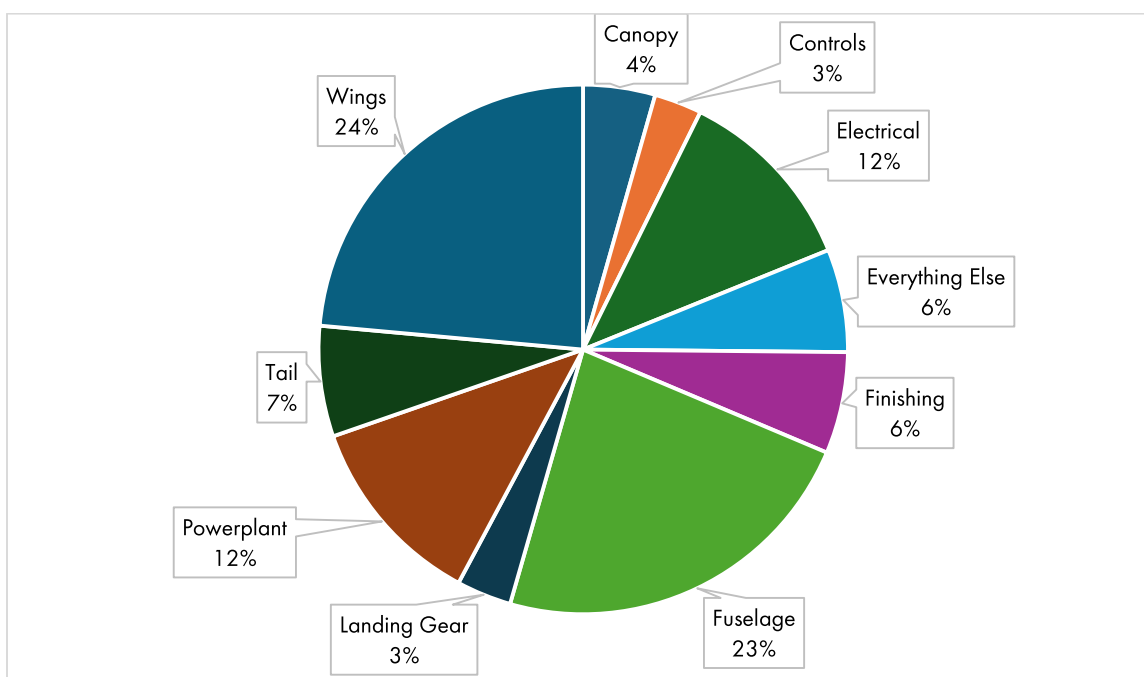
Build Budget

Expense Category	Budget	Actual Expenses	Difference
Base Kit	\$4,000.00	\$4,810.60	-\$810.60
Engine	\$25,000.00	\$8,843.13	\$16,156.87
Engine Accessories	\$1,400.00	\$5,757.55	-\$4,357.55
Instruments	\$12,000.00	\$24,434.08	-\$12,434.08
Lighting	\$800.00	\$939.98	-\$139.98
Model B Upgrade	\$16,900.00	\$15,366.16	\$1,533.84
Paint	\$1,500.00	\$2,119.10	-\$619.10
Prop	\$1,700.00	\$1,981.00	-\$281.00
Shop Supplies	\$1,000.00	\$1,090.25	-\$90.25
Smoke System	\$500.00	\$374.00	\$126.00
Standard Gear Swap	\$1,000.00	\$2,868.49	-\$1,868.49
Tools	\$2,000.00	\$3,711.74	-\$1,711.74
Transportation	\$1,500.00	\$881.76	\$618.24
Upholstery	\$1,200.00	\$1,614.90	-\$414.90
TOTALS:	\$70,500.00	\$74,792.74	-\$4,292.74

Hours by Month



Hours by Task Group



Build Task Summary

Task	Description	Start Date	End Date	Hours
Canopy Group (54.0 Hours)				
SNB-D01	Windshield/Canopy Installation	7/18/2025	10/23/2025	48
SNB-D02	Windshield/Canopy Details	8/12/2025	8/12/2025	2.8
SNB-D03	Canopy Frame Components	7/4/2025	7/11/2025	3.2
Controls Group (35.6 Hours)				
SNB-C01	Controls Installation & Rigging	3/22/2025	6/16/2026	14.9
SNB-C02	Rudder Control System Details	3/18/2025	9/9/2025	3.3
SNB-C03	Control Details	4/15/2025	4/15/2025	3.1
SNB-C04	Control Details	6/29/2025	7/11/2025	6.8
SNB-C05	Flap Actuator Details & Installation	12/3/2024	12/3/2024	4.0
SNB-C06	Trim System Installation	8/21/2025	8/22/2025	3.5
Electrical Group (141.9 Hours)				
SNB-E01	Avionics & Electrical Installation	7/18/2024	7/29/2026	101.9
Landing Lights	Duckworks Landing Light Kit	6/28/2024	9/1/2024	14.1
Instrument Panel	Instrument Panel Design	12/28/2024	4/16/2025	25.9
Everything Else (72.0 Hours)				
Kit Inventory	Inventory of Kit Parts	N/A	N/A	53.6
Workshop Prep	Preparation of workshop	N/A	N/A	11.9
Shipping	Acquisition activities	N/A	N/A	6.5
Finishing Group (76.3 Hours)				
Exterior Finishing	Exterior Finishing and Wrap-up	08/05/2026	08/20/2026	12.9
Paint	Prep and Paint	8/28/2025	8/10/2026	63.4
Fuselage Group (282.9 Hours)				
SNB-F01	Fuselage Complete	6/29/2025	08/27/2026	36.0
SNB-F02	Wing Rigging & Rear Spar Carry Through Installation	6/13/2025	6/27/2025	12.8
SNB-F03	Rear Spar Carry Through & Misc. Details	4/11/2025	4/11/2025	6.7
SNB-F04	Seat Belt Installation	8/22/2025	7/30/2026	1.2
SNB-F06	Glareshield/Instrument Panel Assembly & Installation	2/5/2025	9/4/2025	29.2
SNB-F07	Glareshield/Instrument Panel Details	2/5/2025	2/5/2025	1.9
SNB-F08	Seat Installation and Misc. Details	1/28/2025	1/31/2025	14.5
SNB-F09	Aft Lower Cabin Details Installation	1/9/2025	1/17/2025	12.3
SNB-F10	Aft Lower Cabin Details	1/7/2025	1/11/2025	5.2
SNB-F11	Fuselage Box Assembly	12/28/2024	1/4/2025	22.2
SNB-F12	Fuselage Forward Side Panel	12/22/2024	12/27/2024	17.6
SNB-F13	Forward Side Panel Longerons & Skin	12/21/2024	12/21/2024	0.7
SNB-F14	Forward Side Panel Verticals & Gussets	12/20/2024	12/24/2024	7.1
SNB-F15	Forward Side Panel Mounts, Doublers, & Misc. Brackets	12/19/2024	12/19/2024	2.7
SNB-F16	Lower Skins & Spar Tunnel Details	12/14/2024	12/17/2024	6.0
SNB-F17	Firewall & Firewall/Lower Skin Stiffeners	12/13/2024	12/13/2024	2.3

Task	Description	Start Date	End Date	Hours
SNB-F18	Fuselage Tail Cone Assembly	12/10/2024	12/10/2024	3.7
SNX-F19	Turtle Deck Assembly & Installation	10/29/2024	12/6/2024	30.5
SNX-F20	Turtle Deck Details	10/22/2024	10/29/2024	2.8
SNX-F21	Fuselage Tail Cone Box	10/8/2024	11/24/2024	22.9
SNX-F22	Lower Skins & Spar Tunnel Details	10/3/2024	10/3/2024	2.5
SNX-F23	Aft Fuselage Details	10/1/2024	10/3/2024	7.9
SNX-F24	Cross Ties	9/29/2024	11/16/2024	5.6
SNX-F25	Fuselage Aft Side Panel	9/24/2024	11/16/2024	12.2
SNX-F26	Aft Side Panel Longerons & Skins	9/19/2024	10/22/2024	6.8
SNX-F27	Aft Side Panel Channels & Misc. Details	9/17/2024	10/22/2024	8.0
SNX-FC01	Fuselage Conversion	11/1/2024	10/5/2025	1.6
Landing Gear Group (41.1 Hours)				
SNB-L01	Main Landing Gear Details & Installation	1/17/2025	8/11/2026	17.1
SNB-L03	Tail Wheel/Tail Skid Details & Installation	1/25/2025	5/20/2026	5.4
SNB-L05	Hydraulic Brake Installation	1/24/2025	5/8/2026	11.3
SNB-L06	Wheel Pants & Fairings Installation	5/5/2026	7/15/2026	7.3
Power Plant Group (143.7 Hours)				
SNB-G01	Fuel System Installation	3/12/2025	7/27/2026	26.0
SNB-P01	Engine Installation	10/30/2025	08/21/2026	51.5
SNB-P10	Engine Mount and Installation	1/17/2025	1/17/2025	0.3
SNB-P13	Cowling Installation	1/1/2025	8/22/2026	55.5
SNB-P14	Battery Box Details & Installation	10/29/2025	10/30/2025	5.3
Smoke System	Smoke System Installation	7/27/2026	8/25/2026	5.1
Tail Group (83.0 Hours)				
SNB-T01	Tail Surface Installation	04/25/2025	10/30/2025	23.6
SNX-T02	Horizontal Tail Assembly	4/9/2024	10/28/2025	12.8
SNX-T03	Horizontal Tail Main & Forward Spar Assemblies	4/9/2024	4/9/2024	2.0
SNX-T04	Horizontal Tail Stabilizer Ribs	4/9/2024	4/9/2024	0.1
SNX-T05	Horizontal Tail Stabilizer Skin	4/9/2024	4/9/2024	0.1
SNX-T06	Horizontal Tail Misc. Details	4/9/2024	6/3/2025	4.9
SNX-T07	Elevator Ribs & Skin	4/9/2024	4/23/2024	1.0
SNX-T08	Vertical Tail Assembly	4/8/2024	4/21/2024	24.5
SNX-T09	Vertical Tail Main & Forward Spar Assemblies	4/6/2024	4/8/2024	1.4
SNX-T10	Vertical Tail Stabilizer Ribs	4/6/2024	4/6/2024	0.3
SNX-T11	Vertical Tail Stabilizer Skin	4/6/2024	4/6/2024	0.1
SNX-T12	Vertical Tail Misc. Details	4/6/2024	4/6/2024	0.4
SNX-T13	Rudder Ribs & Skin	4/5/2024	4/12/2024	8.5
SNX-T14	Optional Tail Surface Tips	10/3/2025	10/29/2025	3.3
Wing Group (289.0 Hours)				
SNB-W01	Wing Installation	6/26/2025	08/20/2026	6.0
SNB-W02	Wing Complete	6/14/2025	3/20/2026	5.4
SNB-W03	Aileron Assembly	9/3/2024	2/24/2026	4.3
SNB-W04	Aileron Details	9/1/2024	9/5/2024	7.4
SNB-W05	Flap Assembly	9/12/2024	9/14/2024	10.1

Task	Description	Start Date	End Date	Hours
SNB-W06	Flap Details	9/1/2024	9/14/2024	5.1
SNB-W07	Wing Box Complete	6/27/2024	9/1/2024	71.0
SNX-W08	Main Spar Assembly	5/17/2024	6/13/2024	58.6
SNX-W09	Main Spar Caps	5/15/2024	5/15/2024	0.2
SNX-W10	Main Spar Webs	5/14/2024	5/15/2024	2.9
SNX-W11	Main Spar Details	5/14/2024	5/14/2024	5.2
SNX-W12	Rear Spar Assembly	5/10/2024	5/11/2024	2.6
SNX-W13	Rear Spar Details	5/10/2024	5/10/2024	1.6
SNB-W14	Wing Rib Installation	6/21/2024	8/29/2024	29.4
SNX-W15	Forward Wing Ribs	6/23/2024	6/26/2024	8.5
SNX-W16	Aft Wing Ribs	6/13/2024	6/21/2024	12.5
SNB-W17	Root Rib Details & Installation	7/5/2024	8/23/2024	8.0
SNX-W18	Forward Wing Skin	6/29/2024	8/8/2024	0.0
SNX-W19	Aft Wing Skins	6/26/2024	7/30/2024	0.0
SNX-W21	Rib #9 & Aileron Bellcrank Assembly	6/16/2024	6/20/2024	15.0
SNX-W22	Tip Rib	10/7/2025	10/18/2025	4.4
SNB-W23	Pitot System	6/30/2024	6/25/2026	14.2
SNX-WC01	Wing Conversion - Details	5/15/2024	8/8/2024	8.8
SNX-WC02	Wing Conversion - Main Spar	5/17/2024	6/15/2024	5.3
SNX-WC03	Wing Conversion - Rear Spar	5/11/2024	5/11/2024	2.5

Wiring Diagram

(See attached wiring diagram)