

S-21 Outbound

Progress Report 21

7-3-18

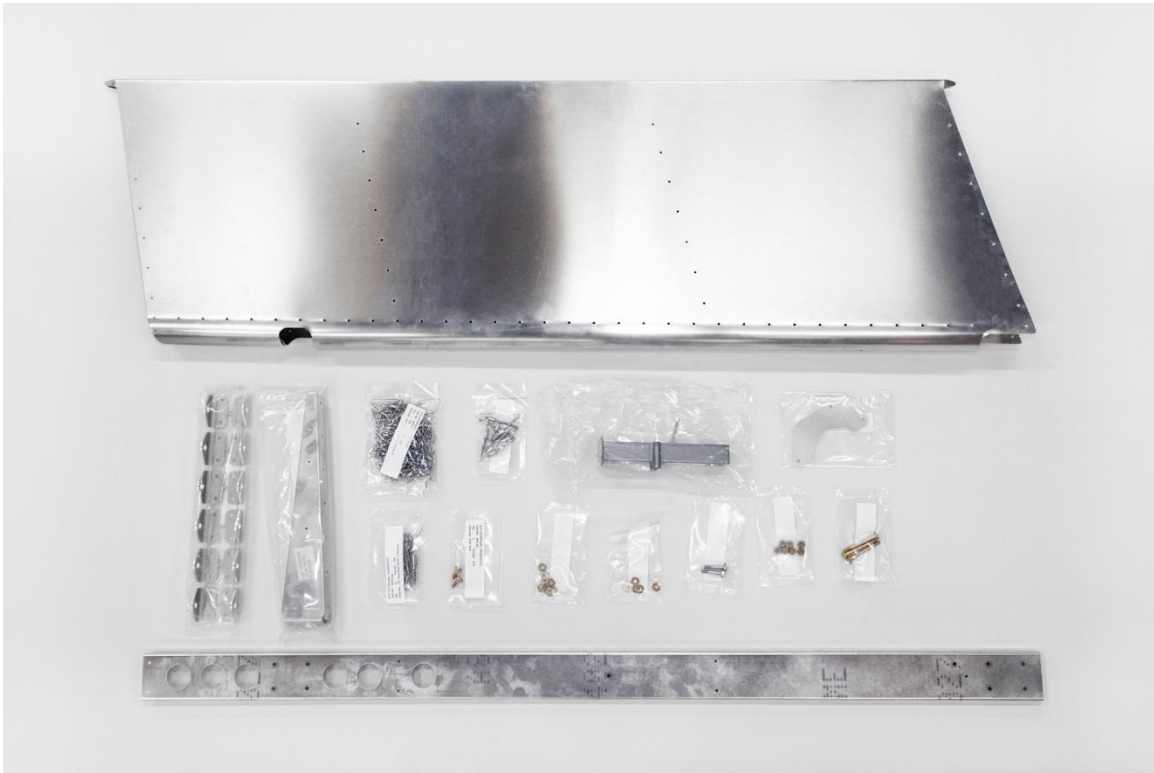
Jury struts no more:

Several flight tests using both the Rotax powered Outbound and Titan powered Raven confirmed the tendency for the struts to shake at certain speeds. It was caused by the separation of airflow. Various types of aerodynamic solutions were tried, ranging from layers of masking tape to weather seal strips. Most all the attempts to re-attach the airflow were successful, but we needed one that would be bullet proof, last many years, light in weight, and easy to install. The winner was a strip of grip tape. One inch wide by 48" long, applied in the center of the strut (it makes no difference, top or bottom) and placed on the camber. Kits will be supplied with a strip of grip tape and instructions on where and how to apply.



Oshkosh Rudder Build Workshop

The first 5 days of Oshkosh at 10:00 AM we will conduct a rudder build workshop. You are welcome to attend and see just how easy the rudder builds. This is a good preview into the build ease of the S-21.



What Planes to expect at Oshkosh

We will be flying in at least 3 planes to Osh. The projected lineup is the S-21 prototype with the 912, the S-20 Raven with the 340, and either another Raven or S-19LS.

Performance Testing of the 0X-340 Powered Raven

We know everyone has been very anxious to see what the numbers will be for the 180 HP Outbound, and we have our final assembly team working everyday to complete another S-21. However, we have not been idle in accumulating data from the Titan powered Raven. We believe the performance numbers will be similar.

As expected, the climb rates are high, well above 1000 FPM. Climb test to 12,500 from HYS (2000') showed an average rate of 650'. This supports how viable this wing and powerplant combo will be in high elevation back country.

At 5000', DA 9830' 27.80 barometric pressure, and OAT of 79F

IAS.....TAS.....RPM
115 MPH.....133MPH.....2350
142 MPH.....165 MPH.....2700

Building #2 and #3 Outbound's

The build is proving out the parts and purging the manual and pack list. This process does slow us down, but we are seeing rapid progress on the basic airframe daily. This remains a fun kit to build!



Fuselage and Tail Kits Shipping!

The packing department is crowded with crates packed with tail and fuselage kits. Clients are picking up kits on a weekly basis, and the final touches on the finishing and engine install kits are happening. We are not only refining the assembly of the kits, but the production process. It feels good to have this project this far down the road! Stay tuned: More to come! RJS

