

7-10-17

Conducted a brief .4 of an hour flight in, 104 degree F temps. DA was 5000, winds light from the south. It was a check flight, to make sure controls were responsive and symmetrical (they were) and make sure all things were a go for further testing. The most stressful part of flight testing new designs is getting the plane ready for data acquisition. A few crow hops can tell a lot. Controls were light and even. Being only 20 pounds heavier, it reached lift off speed in 5 to 6 seconds. The feel in the flare, excellent, very easy to land.



I was impressed with the effective ailerons. Very light but with an odd feel, more on that to come. The other concern was the force on the flaps. Flap extension force seemed less than the stock Raven wing flaps. This was the intent of the "bail" type flap, good to know it worked out. Back to the ailerons...I kept the flight short because that little voice said go back and investigate.



Back in the shop we measured the static break out forces up to 3.5 pounds. We then tweaked the hinges and got this to be at 2 pounds or less. An aileron system can have a lot of aerodynamic boost, as do these, but if there is system friction it will mask the feel, even though the break out pressure in

flight is very light (2 pounds or less). That system friction masks the feedback and diminishes the self centering. The combination of light forces and little self centering would make most pilots uncomfortable. The stick release test was positive, going back to neutral, just a tad slower than what a RANS should. Tomorrow we test with the reduced system friction and take some readings. Ultimately we will have that nice feel you expect in our planes.

We are predicting at least 5 knots faster and no less stall speed. At first blush it seems that both of those goals are well within reach. Rate of climb was familiar and plenty.



I am very excited about further flight testing and will post more when possible." - Randy Schlitter