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AS-ERA

Date: 12/19/25

Subject: N533SE Weight and Modification Information

N533SE's weight was measured and its center of gravity calculated by the owner/builder in August 2025. This information (Figures 1 and 2) was then used for the airworthiness application to the Federal Aviation Administration (FAA).

Over the next 10 years, the following modifications and repairs are documented in the aircraft's logbook:

- **Three Propeller Replacements.** Multiple manufacturer changes occur, however insufficient information is provided by the owner/operator to know with certainty which models were used (Figures 3-5), and which was initially installed.
- **Repair of Aileron Mount** by addition of material (Figure 6).
- **Four Repairs and Redesign of Landing Gear** by addition of tubular structure, gussets, and rewelding (Figures 7-10). The submitted NTSB 8710.1 form references a custom landing gear design.
- **Upgrade of Avionics** to include the installation of the UAionics Automatic Dependent Surveillance and Broadcast (ADSB), as well as a custom fairing and bracket for its installation (Figure 11).

There is no record of a new weight of the airplane ever occurring. The current owner used the same weight and balance information from August 2025 when calculating weight and balance that was ultimately used in preparation for the accident flight.

Airplane Weight and Balance				
Builder:	ROBERT T M ^C CAA		Date:	8/23/2015
Model:	AVID/KITFOX FLYER		Registration:	N533SE
Gross weight:	1150	pounds (lbs.)	Serial #:	M002
CG Range:	11" TO 15" inches (in.)			
Datum is:	WING LEADING EDGE			
Empty Weight & CG				
	Wt. (lb.)	Arm (in.)	Moment (in.lb.)	
Left wheel =	256	-2	-512	
Right wheel =	252	-2	-504	
Tail =	59	150	8850	
Aircraft empty weight =	567		7834	
Empty CG =	13.8			

Figure 1: Empty Weight Determination August, 23 2015

II. AIRCRAFT INFORMATION			
Model	AVID/KITFOX FLYER	Engine(s) Make	ROTAX 582
Assigned Serial No.	M002	Engine(s) Serial No.	NONE
Registration No.	N533SE	Prop./Rotor(s) Make	POWER FIN "B"
Aircraft Fabricated:	Plan ☒ Kit ☐	Prop./Rotor(s) Serial No.(s)	NONE
III. MAJOR PORTION ELIGIBILITY STATEMENT OF APPLICANT			
I certify that the major portion of this aircraft (identified in Section II above) was fabricated and assembled by			
M ^C CAA ROBERT T			
Names of all builders (Please Print)			
solely for my (our) education or recreation, in accordance with 14 CFR part 21, Certification Procedures for Products and Parts, § 21.191(g), Operating amateur-built aircraft. I have records to support this statement and will make them available to the FAA upon request.			
During the fabrication and assembly of this project, I/we used the following commercial assistance (mark N/A if no commercial assistance was used):			
Name of company or individual(s)	City & State	Phone	
Name of company or individual(s)	City & State	Phone	
-NOTICE-			
Whoever in any matter within the jurisdiction of the executive, legislative, or judicial branch of the Government of the United States, knowingly and willfully falsifies, conceals or covers up by any trick, scheme, or device a material fact, or who makes any materially false, fictitious or fraudulent statement or representation, or makes or uses any false writing or document knowing the same to contain any materially false, fictitious or fraudulent statement or entry, shall be fined under this title, imprisoned not more than 5 years or, if the offense involves international or domestic terrorism, imprisoned not more than 8 years, or both.			
(U.S. Code, Title 18, Sec. 1001)			
APPLICANT'S DECLARATION			
I hereby certify that all statements and answers provided by me in this statement form are complete and true to the best of my knowledge, and I agree that they are to be considered part of the basis for issuance of any FAA certificate to me. I have also read and understand the Privacy Act statement that accompanies this form.			
Signature of Applicant (In Ink)			Date
[Redacted Signature]			8/24/2015

Figure 2: Evidence of Propeller Installed as of 8-24-25

7016			
5/30	4.3	4.3	FLIGHT TESTS KRUL - 1/0 72" TWO
5/31			BLADE PROP = MUCH IMPROVED CLIMB
			CRUISE and RPM.

Figure 3: Maintenance Logbook Excerpt Evidence of Propeller Change, May 2016

8/27	125.2	125.2	PROP TEST
			3 BLADE POWER FIN 46" N.G.
			2 BLADE 72" 1/0 - GOOD AT ALL
			SETTINGS (2)

Figure 4: Maintenance Logbook Excerpt Evidence of Propeller Changes, August 2022

6/7	191.5	191.5	SARTON AREA
			NEW PLUGS 2019 @ 235 in LBS
			68" POWER FIN PROP
			STATIC 4150 TORQUE 275 in LBS
			MAIN SET TO 162 CLIP TO POS 3
			FULL THROTTLE 975 STATIC & RISE 1000
			5400 RPM.

Figure 5: Maintenance Logbook Excerpt Evidence of Propeller Change, June 2022

2. Repair right outboard plywood ribtail/ aileron mount by tripling inside and outside..

Figure 6: Maintenance Logbook Excerpt Showing Addition of Material to Effect Repair

3. Replace 12 inch section of left side lower longeron immediately ahead of tailwheel. Repairs were accomplished by welding in section of tubing, pinned inside at after end, and sleeved at forward end, then plated top and bottom at after end. Tailwheel remounted using two AN5 bolts in addition to bracket.

Figure 7: Maintenance Logbook Excerpt Showing Addition of Material to Effect Repair

4. Cracked lower left side longeron immediately ahead of front landing gear bracket, and associated cracked lower crossmember were repaired by re-welding the crack, and then oversleeving the top of the tubing in both locations.

Figure 8: Maintenance Logbook Excerpt Showing Addition of Material to Effect Repair

10/2072			LONGERON STRAIGHTENED AND
	129.2		CROSSMEMBER. REPAIR REINFORCED
			BY WELDING IN TRIANGULAR
			GUSSETS. AREA RE-COVERED AND
			RE PAINTED. RETURNED TO SERVICE.

Figure 9: Maintenance Logbook Excerpt Showing Addition of Material to Effect Repair

DATE	DESCRIPTION	TIME	BY
7/8/23 TO 7/22/23	REPAIRS: REPLACE LONGERON SECTION FROM CLUSTER AHEAD OF GEAR LEG BY INNER SLEEVE OUTER SLEEVE WELDMENT. REPLACE SECTION OF LOWER SENT TRUSS CROSS MEMBER BY INNER SLEEVE METHOD. REPAIR TRUSS WORK BY OVER SLEEVE WITH 5/8 DIA. OR 3/4 WALL TUBING. FABRICATE & INSTALL GEAR MOUNT BRACKET. COVER & PAINT.		

Figure 10: Maintenance Logbook Excerpt Showing Addition of Material to Effect Repair



Figure 11: UA Avionics ADSB System and Fixture/Fairing (Photo Courtesy of FAA)