



U.S. Department
of Transportation
**Federal Aviation
Administration**

Aviation Safety
Aircraft Certification Service
Compliance & Airworthiness Division

Seattle ACO Branch
2200 S 216th Street
Des Moines, WA 98198-6547

MAR 13 2019

In Reply
Refer To: 784-19-1520

Mr. Scott Philiben
President
CiES, Inc.
1375 SE Wilson Ave, Suite 150
Bend, OR 97702

Dear Mr. Philiben:

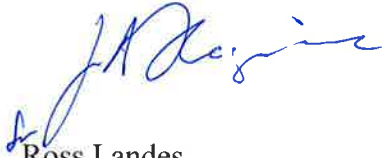
We have completed our evaluation of the request for amendment of Approved Model List (AML) Supplemental Type Certificate (STC) SA02511SE, to install the CiES fuel sender, in combination with the Garmin G500 TXi instrument display, on the Vulcanair V1.0 aircraft. We find that you have satisfactorily demonstrated compliance with the applicable certification regulations. Accordingly, we have enclosed a revised AML for STC SA02511SE, amended on March 13, 2019, for the installation in accordance with the installation requirements and instructions for continued airworthiness (ICA) listed on the AML, or later Federal Aviation Administration (FAA) approved revision to add to the AML approval of the above installation subject to the terms identified in the STC and the AML.

If you plan to manufacture replacement or modification articles for sale in conformance with approved data listed on the certificate, a parts manufacturer approval (PMA) may be applied for under the provisions of § 21.303 and issued after establishing compliance with § 21.307 and § 21.308. The identification requirements for articles produced under a PMA are in § 45.15. Your application may be in letter form, with reference to the STC number, and should be addressed to the Federal Aviation Administration, Northwest Mountain Region, Attention: Manager, Seattle MIDO Section, 2200 S. 216th Street, Des Moines, WA 98198-6547.

Since I am very much interested in the service we provide to the aviation community and the public, it would be helpful if you would provide your thoughts and comments regarding how the approval process went. To gather this information, we have provided this letter and its enclosures electronically and attached a short survey that I hope you will fill out and return via e-mail as indicated on the survey. Please make the subject line of the return e-mail read "Survey" to ensure proper receipt. You may rest assured that your comments

will receive my full attention and that I will hold your comments in strict confidence, should you request I do so. Please note that this stakeholder survey is common to all Aircraft Certification offices within the FAA's Aircraft Certification Service and is aimed at enabling the Aircraft Certification Service to deliver the best services to each of our stakeholders.

Sincerely,



Ross Landes
Aviation Safety
Manager, Seattle ACO Branch
Compliance & Airworthiness Division
Aircraft Certification Service

Enclosure

**FEDERAL AVIATION ADMINISTRATION (FAA) APPROVED MODEL LIST (AML) SA02511SE
FOR
CIES INC. CC284022 SERIES TSO C55a FUEL QUANTITY SENDERS**

ISSUE DATE: March 14, 2017

ITEM	AIRCRAFT MAKE	AIRCRAFT MODEL	ORIGINAL TC NUMBER	CERTIFICATION BASIS FOR ALTERATION	INSTALLATION REQUIREMENTS & INSTRUCTIONS FOR CONTINUED AIRWORTHINESS		STC MASTER DRAWING LIST		CIES SENDER PART NUMBERS APPROVED FOR INSTALLATION	APPROVED SENDER AND INSTRUMENT COMBINATIONS	AML REV DATE
					Number	Revision*	Number	Revision**			
1.	Textron Aviation Inc. (formerly Cessna)	172, 172A, 172B, 172C, 172D, 172E, 172F, 172G, 172H, 172I, 172K, 172L, 172M, 172N, 172P, 172Q, 172R, 172S	3A12	CAR 3, 14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	A	CC284022 0603-XXX CC284022 0605-XXX CC284022 0609-XXX CC284022 0616-XXX CC284022 0617-XXX CC284022 0624-XXX (Tip)	1-25	09/13/18
2.	Textron Aviation Inc. (formerly Cessna)	182, 182A, 182B, 182C, 182D, 182E, 182F, 182G, 182H, 182J, 182K, 182L, 182M, 182N, 182P, 182Q, 182R, 182S, 182T, R182, T182, T182T, TR182	3A13	CAR 3, 14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	A	CC284022 0602-XXX CC284022 0606-XXX CC284022 0607-XXX CC284022 0608-XXX CC284022 0624-XXX (Tip)	1-25	09/13/18
3.	Textron Aviation Inc. (formerly Cessna)	175, 175A, 175B, 175C, P172D, R172E, R172F, R172G, R172H, R172J, R172K, 172RG	3A17	CAR 3, 14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	A	CC284022 0603-XXX CC284022 0616-XXX CC284022 0617-XXX CC284022 0620-XXX CC284022 0624-XXX CC284022 0608-XXX (Tip)	1-19, 21-25	09/13/18
4.	Textron Aviation Inc. (formerly Cessna)	210, 210A, 210B, 210C, 210D, 210E, 210F, 210G, 210H, 210J, 210K, 210L, 210M, 210N, 210R, T210F, T210G, T210H, T210J, T210K, T210L, T210M, T210N, T210R, 210-5 (205), 210-5A (205A), P210N, P210R	3A21	CAR 3, 14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	A	CC284022 0601-XXX CC284022 0602-XXX (Strut) CC284022 0608-XXX (Tip) CC284022 0624-XXX (Tip) CC284022 0608-XXX (Tip)	1-19, 21-25	09/13/18

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5.	Textron Aviation Inc. (formerly Cessna)	185, 185A, 185B, 185C, 185D, 185E, A185E, A185F	3A24	CAR 3, 14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	A	CC284022 0602-XXX CC284022 0608-XXX (Tip) CC284022 0624-XXX (Tip)	1-19, 21-25	09/13/18
6.	Textron Aviation Inc. (formerly Cessna)	180, 180A, 180B, 180C, 180D, 180E, 180F, 180G, 180H, 180J, 180K	5A6	CAR 3, 14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	A	CC284022 0602-XXX CC284022 0608-XXX (Tip) CC284022 0624-XXX (Tip)	1-19, 21-25	09/13/18
7.	Textron Aviation Inc. (formerly Cessna)	177, 177A, 177B	A13CE	14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	A	CC284022 0601-XXX	1-19, 21-25	09/13/18
8.	Textron Aviation Inc. (formerly Cessna)	207, 207A, T207, T207A	A16CE	14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	A	CC284022 0602-XXX CC284022 0608-XXX (Tip)	1-19, 21-25	09/13/18
9.	Textron Aviation Inc. (formerly Cessna)	177RG	A20CE	14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	A	CC284022 0601-XXX	1-19, 21-25	09/13/18
10.	Cessna Aircraft Company	Cessna F177RG	A26EU	14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	A	CC284022 0601-XXX	1-19, 21-25	09/13/18
11.	Cessna Aircraft Company	Cessna F182P, Cessna F182Q, Cessna FR182	A42EU	CAR 3, 14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	A	CC284022 0602-XXX CC284022 0608-XXX (Tip) CC284022 0624-XXX (Tip)	1-19, 21-25	09/13/18

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12.	Textron Aviation Inc. (formerly Cessna)	206, P206, P206A, P206B, P206C, P206D, P206E, U206, U206A, U206B, U206C, U206E, U206D, U206F, U206G, TP206A, TP206B, TP206C, TP206D, TP206E, TU206A, TU206B, TU206C, TU206D, TU206E, TU206F, TU206G, 206H, T206H	A4CE	CAR 3, 14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	A	CC284022 0602-XXX CC284022 0604-XXX CC284022 0606-XXX CC284022 0607-XXX CC284022 0608-XXX (Tip) CC284022 0611-XXX CC284022 0612-XXX	1-25	09/13/18
13.	Cessna Aircraft Company	Cessna F172D, Cessna F172E, Cessna F172F, Cessna F172G, Cessna F172H, Cessna F172K, Cessna F172L, Cessna F172M	A4EU	CAR 3, CAR 10, 14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	A	CC284022 0603-XXX CC284022 0616-XXX CC284022 0617-XXX CC284022 0624-XXX (Tip)	1-25	09/13/18
14.	Textron Aviation Inc. (formerly Cessna)	170, 170A, 170B	A-799	CAR 3	CC-TR-2840-031	C	CC2840 00 03	A	CC284022 0603-XXX CC284022 0616-XXX CC284022 0617-XXX CC284022 0624-XXX (Tip)	1-19, 21-25	09/13/18
15.	Textron Aviation Inc. (formerly Cessna)	150, 150A, 150B, 150C, 150D, 150E, 150F, 150G, 150H, 150J, 150K, 150L, 150M, A150 A150K, A150L, A150M, 152, A152	3A19	CAR 3, 14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	A	CC284022 0616-XXX CC284022 0617-XXX CC284022 0624-XXX (Tip)	1-19, 21-25	09/13/18

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16.	Cirrus Design Corp.	SR20, SR22, SR22T	A00009CH	14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	A	CC284022 0001-XXX CC284022 0002-XXX CC284022 0004-XXX CC284022 0005-XXX CC284022 0006-XXX CC284022 0007-XXX CC284022 0008-XXX CC284099 0001 (Installation) CC284099 0002 (Installation) CC284099 0003 (Installation) CC284099 0004 (Installation)	1-25	09/13/18
17.	Cirrus Design Corp.	SR22, SR22T (w/TKS Sender)	A00009CH	14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	A	CC284022 0003-XXX	1-25	09/13/18
18.	Textron Aviation Inc. (formerly Beechcraft)	35-33, 35-A33, 35-B33, 35-C33, 35-C33A, E33, E33A, E33C, F33, F33A, F33C, G33, H35, G36, J35, K35, M35, N35, P35, S35, V35, V35A, V35B, 36, A36, A36TC, B36TC	3A15	CAR 3, 14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	A	CC284022 2201-XXX CC284022 2202-XXX CC284022 2203-XXX CC284022 2215-XXX CC284022 2216-XXX CC284022 2217-XXX CC284022 2218-XXX CC284022 2219-XXX (Tip)	1-19, 21-25	09/13/18

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19.	Textron Aviation Inc. (formerly Beechcraft)	B95A, D95A, E95, 95- 55, 95-A55, 95-B55, 95-B55A, 95-B55B (T-42), 95- C55, 95-C55A, G58, D55, D55A, E55, E55A, 56TC, A56TC, 58, 58A, 95, B95	3A16	CAR 3, 14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	A	CC284022 2204-XXX CC284022 2205-XXX CC284022 2206-XXX CC284022 2207-XXX CC284022 2208-XXX CC284022 2203-XXX CC284022 2209-XXX CC284022 2210-XXX CC284022 2211-XXX CC284022 2212-XXX CC284022 2213-XXX CC284022 2214-XXX CC284022 2219-XXX (Tip) CC284022 2225-XXX CC284022 2226-XXX CC284022 2227-XXX	1-19, 21-25	09/13/18
20.	Textron Aviation Inc. (formerly Beechcraft)	58P, 58PA, 58TC, 58TCA	A23CE	14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	A	CC284022 2204-XXX CC284022 2205-XXX CC284022 2206-XXX CC284022 2207-XXX CC284022 2208-XXX	1-19, 21-25	09/13/18

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21.	Maule Aerospace Technology, Inc.	Bee Dee M-4, M-4, M-4C, M-4S, M-4T, M-4-180C, M-4-180S, M-4-180T, M-4-210, M-4-210C, M-4-210S, M-4-210T, M-4-220, M-4-220C, M-4-220S, M-4-220T, M-5-180C, M-5-200, M-5-210C, M-5-210TC, M-5-220C, M-5-235C, M-6-180, M-6-235, M-7-235, MX-7-235, MX-7-180, MXT-7-180, MT-7-235, M-8-235, MX-7-160, MXT-7-160, MX-7-180A, MXT-7-180A, MX-7-180B, M-7-235B, M-7-235A, M-7-235C, MX-7-180C, M-7-260, MT-7-260, M-7-260C, MX-7-160C, MX-7-180AC, M-9-235	3A23	CAR 3, 14 CFR 23	CC-TR-2840-031	N/C	CC2840 00 03	A	CC284022 2401-XXXX	1-19, 21-25	09/13/18
22.	Mooney Intl. Corp.	M20, M20A, M20B, M20C, M20D, M20E, M20F, M20G, M20J, M20K, M20L, M20M, M20R, M20S, M20TN	2A3	CAR 3, 14 CFR 23	CC-TR-2840-031	N/C	CC2840 00 03	A	CC284022 0701-XXXX CC284022 0702-XXXX CC284022 0705-XXXX CC284022 0706-XXXX CC284022 0707-XXXX CC284022 0708-XXXX CC284022 0709-XXXX	1-19, 21-25	09/13/18
23.	Pilatus Aircraft Ltd.	PC-6	7A15	CAR 10, CAR 3	CC-TR-2840-031	N/C	CC2840 00 03	A	CC284022 2301-XXXX	1-19, 21-25	09/13/18

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24.	Piper Aircraft, Inc.	PA-23, PA-23-160, PA-23-235, PA-23-250, PA-23-250 (Navy U0-1), PA-E23-250	1A10	CAR 3	CC-TR-2840-031	C	CC2840 00 03	N/C	CC284022 0808-XXX CC284022 0809-XXX	1-19, 21-25	09/13/18
25.	Piper Aircraft, Inc.	PA-22, PA-22-108, PA-22-135, PA-22S-135, PA-22-150, PA-22S-150, PA-22-160, PA-22S-160,	1A6	CAR 3	CC-TR-2840-031	C	CC2840 00 03	N/C	CC284022 0816-XXX	1-19, 21-25	09/13/18
26.	Piper Aircraft, Inc.	PA-24, PA-24-250, PA-24-260, PA-24-400	1A15	CAR 3	CC-TR-2840-031	C	CC2840 00 03	N/C	CC284022 0812-XXX CC284022 0813-XXX CC284022 0820-XXX CC284022 2219-XXX (Tip)	1-19, 21-25	09/13/18
27.	Lavia Argentina S.A. (Piper)	PA-25	2A10	CAR 8	CC-TR-2840-031	C	CC2840 00 03	N/C	CC284022 0817-XXX	1-19, 21-25	09/13/18

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28.	Piper Aircraft, Inc.	PA-28-140, PA-28-150, PA-28-160, PA-28-180, PA-28-235, PA-28S-160, PA-28S-180, PA-28R-180, PA-28R-200, PA-28-151, PA-28-161, PA-28-181, PA-28R-201, PA-28R-201T, PA-28-236, PA-28RT-201, PA-28RT-201T, PA-28-201T	2A13	CAR 3, 14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	N/C	CC284022 0810-XXX CC284022 0811-XXX	1-19, 21-25, 27	12/12/18
29.	Piper Aircraft, Inc.	PA-30, PA-39, PA-40	A1EA	CAR 3, 14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	N/C	CC284022 0812-XXX CC284022 0813-XXX CC284022 2219-XXX (Tip)	1-19, 21-25	09/13/18
30.	Piper Aircraft, Inc.	PA-31, PA-31-300, PA-31-325, PA-31-350,	A20SO	CAR 3, 14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	N/C	CC284022 0804-XXX CC284022 0805-XXX CC284022 0806-XXX CC284022 0807-XXX	1-19, 21-25	09/13/18
31.	Piper Aircraft, Inc.	PA-32-301XTC, PA-32-301FT, PA-32S-300, PA-32-260, PA-32-300, PA-32R-300, PA-32RT-300, PA-32RT-300T, PA-32R-301(SP), PA-32R-301(HP), PA-32R-301T, PA-32-301, PA-32-301T	A3SO	CAR 3, 14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	N/C	CC284022 0810-XXX CC284022 0811-XXX	1-19, 21-25, 27, 28	12/12/18
32.	Piper Aircraft, Inc.	PA-34-200, PA-34-200T, PA-34-220T	A7SO	14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	N/C	CC284022 0810-XXX CC284022 0811-XXX	1-19, 21-25, 29	12/12/18
33.	Piper Aircraft, Inc.	PA-44-180, PA-44-180T	A19SO	14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	N/C	CC284022 0814-XXX CC284022 0815-XXX	1-19, 21-25, 27	12/12/18

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34.	Vulcanair S.p.A	P.68, P.68 "Observer 2", P.68B, P.68C, P.68 "Observer", P.68TC "Observer", P.68C-TC	A31EU	14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	N/C	CC284022 0401-XXX	1-19, 21-25	09/13/18
35.	Fairchild Personal Planes	24 C8C, 24 C8CS	A-535	Aero Bulletin 7-A	CC-TR-2840-031	C	CC2840 00 03	N/C	CC284022 2101-XXX	1-19, 21-25	09/13/18
36.	GA 8 Airvan (Pty) Ltd (formerly Gippsland)	GA8, GA8-TC320	A00011LA	14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	N/C	CC284022 0301-XXX CC284022 0302-XXX	1-19, 21-25	09/13/18
37.	B-N Group Ltd.	BN2A MK III, BN2A MK III-2, BN2A MK III-3	A29EU	14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	N/C	CC284022 2001-XXX CC284022 2002-XXX CC284022 2003-XXX CC284022 2004-XXX	1-19, 21-25	09/13/18
38.	American Champion Aircraft Corp.	8KCAB, 8GCBC	A21CE	14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	N/C	CC284022 2501-XXX	1-19, 21-25	09/13/18
39.	American Champion Aircraft Corp.	7ECA, 7GCAA, 7KCAB, 7GCBC	A-759	CAR 4a, 14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	N/C	CC284022 2501-XXX	1-19, 21-25	09/13/18
40.	Textron Beechcraft Corp.	45 (YT-34), A45 (T-34A, B-45), D45 (T-34B)	5A3	CAR 3	CC-TR-2840-031	C	CC2840 00 03	N/C	CC284022 2203-XXX CC284022 2219-XXX (Tip)	1-19, 21-25	09/13/18
41.	Textron Aviation Inc. (formerly Beechcraft)	35, A35, B35, C35, D35, E35, F35, G35, 35R	A-777	CAR 3	CC-TR-2840-031	C	CC2840 00 03	N/C	CC284022 2201-XXX CC284022 2202-XXX CC284022 2203-XXX CC284022 2215-XXX CC284022 2216-XXX CC284022 2217-XXX CC284022 2218-XXX CC284022 2219-XXX (Tip) CC284022 2230-XXX (Tip)	1-19, 21-25	09/13/18

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42.	B-N Group Ltd.	BN-2, BN-2A, BN-2A-6, BN-2A-8, BN-2A-2, BN-2A-9, BN-2A-3, BN-2A-20 BN-2T-4R, BN-2A-21, BN-2A-26, BN-2A-27, BN-2B-20, BN-2B-21, BN-2B-26, BN-2B-27, BN-2T	A17EU	14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	N/C	CC284022 2001-XXX CC284022 2002-XXX CC284022 2003-XXX CC284022 2004-XXX	1-19, 21-25	09/13/18
43.	True Flight Holdings LLC	AA-5, AA-5A, AA-5B, AG-5B	A16EA	14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	A	CC284022 3708-XXX CC284022 3708-XXX	1-19, 21-25	09/13/18
44.	Piper Aircraft Inc.	PA-46-310P, PA-46-350P, PA-46R-350T	A25SO	14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	A	CC2840 0818-XXX CC2840990801 (INSTALLATION) CC2840990802 (INSTALLATION)	1-19, 21-26	12/12/18
45.	Textron Aviation Inc. (Formerly Cessna)	LC40-550FG, LC41-550FG, LC42-550FG, T240	A00003SE	14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	A	CC2840220618-XXX CC2840220619-XXX CC2840570618 (FEED THRU INSTALL.)	1-19, 21-25	09/13/18
46.	Textron Aviation Inc. (Formerly Cessna)	337, 337E, 337A (USAF 02B), T337E, 337B 337F, M337B (USAF 02A), T337F, T337B 337G, 337C, T337G T337C, 337D, T337D 337H, P337H, T337H T337H-SP	A6CE	CAR 3, 14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	A	CC2840220621-XXX CC2840450601-103 (BRACKET)	1-19, 21-25	09/13/18
47.	Textron Aviation Inc. (Formerly Cessna)	190 (LC-126A,B,C) 195 195A 195B	A-790	CAR 3	CC-TR-2840-031	C	CC2840 00 03	A	CC2840220622-XXX CC2840450601-101 (BRACKET)	1-19, 21-25	09/13/18
48.	SOCATA	TB 9, TB 10, TB 20, TB 21, TB 200	A51EU	14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	A	CC2840223801-XXX	1-19, 21-25	09/13/18
49.	Commander Aircraft Corp.	112, 112TC, 112B 112TCA, 114, 114A 114B, 114TC	A12SO	14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	A	CC2840222501-XXX	1-19, 21-25	09/13/18

**FEDERAL AVIATION ADMINISTRATION (FAA) APPROVED MODEL LIST (AML) SA02511SE
FOR
CIES INC. CC284022 SERIES TSO C55a FUEL QUANTITY SENDERS**

ISSUE DATE: March 14, 2017

ITEM	AIRCRAFT MAKE	AIRCRAFT MODEL	ORIGINAL TC NUMBER	CERTIFICATION BASIS FOR ALTERATION	INSTALLATION REQUIREMENTS & INSTRUCTIONS FOR CONTINUED AIRWORTHINESS		STC MASTER DRAWING LIST		CIES SENDER PART NUMBERS APPROVED FOR INSTALLATION	APPROVED SENDER AND INSTRUMENT COMBINATIONS	AML REV DATE
50.	Textron Aviation Inc. (formerly Cessna)	208, 208B	A37CE	14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	A	CC2840220625-XXX CC2840220626-XXX CC2840220627-XXX	1-19, 21-25	09/13/18
51.	Textron Aviation Inc. (formerly Cessna)	310 310A(USAF U-3A) 310B 310C, 310D 310E (USAF U-3B) 310F 310G 310H E310H 310I 310J 310J-1 E310J 310K 310L 310N 310P T310P 310Q E310H T310Q 310I 310R T310R	3A10	CAR 3, 14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	A	CC2840220640-XXX CC2840220641-XXX CC2840220642-XXX CC2840220643-XXX CC2840220644-XXX	1-19, 21-25	09/13/18
52.	Textron Aviation Inc. (formerly Cessna)	320 320-1 335 320A 320B 320C 320D 320F 320E 340 340A	3A25	CAR 3, 14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	A	CC2840220640-XXX CC2840220641-XXX CC2840220642-XXX CC2840220643-XXX CC2840220644-XXX CC2840220622-XXX	1-19, 21-25	09/13/18
53.	Textron Aviation Inc. (formerly Cessna)	401 401A 401B 402 402A 402B 402C 411 411A 414 414A 421 421A 421B 421C	A7CE	14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	A	CC2840220641-XXX CC2840220642-XXX CC2840220643-XXX CC2840220644-XXX CC2840220622-XXX	1-19, 21-25	09/13/18
54.	Textron Aviation Inc. (formerly Cessna)	T303	A34CE	14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	A	CC2840220630-XXX CC2840220631-XXX	1-19, 21-25	09/13/18
55.	Textron Aviation Inc. (formerly Beechcraft)	50 (L-23A) B50 (L-23B) C50 D50 (L-23E) D50A D50B D50C D50E D50E-5990 E50 (L-23D, RL-23D) F50 G50 H50 J50	5A4	CAR 3	CC-TR-2840-031	C	CC2840 00 03	A	CC2840222231-XXX CC2840222332-XXX	1-19, 21-25	09/13/18

**FEDERAL AVIATION ADMINISTRATION (FAA) APPROVED MODEL LIST (AML) SA02511SE
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56.	AERMACCHI S.p.A	F.260 F.260B F.260C F.260D F.260E F.260F	A10EU	14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	A	CC2840224504-XXX CC2840224503-XXX CC2840224502-XXX CC2840224501-XXX	1-19, 21-25	09/13/18
57.	AERMACCHI S.p.A	S.205- 8/F, S.205 - 18/R, S.205-20/F S.205-20/R S.205-22/R, S.208 S.208A	A9EU	14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	A	CC2840224510-XXX	1-19, 21-25	09/13/18
58.	Univair (Stinson)	108 108-1 108-2 108-3 108-5	A-767	CAR 3	CC-TR-2840-031	C	CC2840 00 03	A	CC2840224705-XXX	1-19, 21-25	09/13/18
59.	Sierra Hotel Aero (formerly Navion)	Navion (L-17A) Navion A (L-17B) (L-17C) Navion B Navion D Navion E Navion F Navion G Navion H	A-782	CAR 3	CC-TR-2840-031	C	CC2840 00 03	A	CC2840222803-XXX CC2840222802-XXX	1-19, 21-25	09/13/18
60.	Consolidated Vultee Aircraft Corp. - Stinson Division	V-77	A-774	CAR 3	CC-TR-2840-031	C	CC2840 00 03	A	CC2840224701-XXX	1-19, 21-25	09/13/18
61.	Reims Aviation SA	F406	A54EU	14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	A	CC2840220640-XXX CC2840220642-XXX CC2840220622-XXX	1-19, 21-25	09/13/18
62.	Twin Commander Aircraft LLC	560-F 685 680 690 680E 690A 680F 690B 680F(P) 690C 680FL 690D 680FL(P) 695 680T 695A 680V 695B 680W 720 681	2A4	CAR 3, 14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	A	CC2840222510-XXX	1-19, 21-25	09/13/18
63.	Helio Aircraft LLC	H-250 (USAF U-10D) H-295 HT-295 (USAFYL-24) H-391 H-391B (USAF L-28A or U-10B) H-395 H-395A H-700 H-800	1A8	CAR 3	CC-TR-2840-031	C	CC2840 00 03	A	CC2840224801-XXX	1-19, 21-25	09/13/18

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64.	Viking Air Limited (formerly de Havilland)	DHC-2 Mk. I DHC-2 Mk. II DHC-2 Mk. III	A-806	CAR 3	CC-TR-2840-031	C	CC2840 00 03	A	CC2840224601-XXX	1-19, 21-25	09/13/18
65.	Piper Aircraft, Inc.	PA-18, PA-18S PA-18 "105" (Special) PA-18S "105" (Special) PA-18A PA-18 "125" (Army L-21A) PA-18S "125" PA-18AS "125" PA-18 "135" (Army L-21B) PA-18A "135" PA-18S "135" PA-18AS "135" PA-18 "150" PA-18A "150" PA-18S "150" PA-18AS "150" PA-19 (Army L-18C) PA-19S	1A2	CAR 3	CC-TR-2840-031	C	CC2840 00 03	A	CC284022 0816-XXX	1-19, 21-25	09/13/18
66.	Textron Aviation Inc. (formerly Beechcraft)	76	A29CE	FAR 23	CC-TR-2840-031	C	CC2840 00 03	A	CC284022 2233-XXX CC284022 2234-XXX	1-19, 21-25	09/13/18
67.	Vulcanair S.p.A	V1.0	A00075CE	14 CFR 23	CC-TR-2840-031	C	CC2840 00 03	N/C	CC284022 0402-XXX	1-19, 21-25	03/15/19

* Or later FAA Accepted ICA and FAA Approved Airworthiness Limitations Revision

** Or later FAA Approved Revision

Note: CiES part numbering system for STC AML is CC284022 – (ZZ ZZ) – (Y XX), where (ZZ ZZ) designates the Aircraft manufacturer, Aircraft Model, and Physical Location, (XX) designates Minor change designation, and (Y) typically designates sender Output Signal Type.

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FOR
CIES INC. CC284022 SERIES TSO C55a FUEL QUANTITY SENDERS**

ISSUE DATE: March 14, 2017

FAA Approved:



Manager, Seattle ACO Branch

AMENDED: September 13, 2018, December 12, 2018,
March 13, 2019

REISSUED:

**FEDERAL AVIATION ADMINISTRATION (FAA) APPROVED MODEL LIST (AML) SA02511SE
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ISSUE DATE: March 14, 2017

Item	Cockpit Display Manufacturer	Cockpit Display Model	Data Converter (LRU')	Fuel Sender Output Capability	Instrument Input Capability
1	JP Instruments	EDM 900	N/A	Voltage 0-5 VDC	0-4.7 VDC
2	JP Instruments	EDM 930	N/A	Voltage 0-5 VDC	0-4.7 VDC
3	JP Instruments	EDM 900	N/A	Digital Frequency 64Hz-10kHz	0-100 kHz
4	JP Instruments	EDM 930	N/A	Digital Frequency 64Hz-10kHz	0-100 kHz
5	Electronics International	MVP-50	EDC-33P	Voltage 0-5 VDC	0-18 VDC
6	Electronics International	CGR-30P	EDC-33P	Voltage 0-5 VDC	0-18 VDC
7	Electronics International	MVP-50	EDC-33P	Digital Frequency 64Hz-10kHz	0-6 kHz
8	Electronics International	CGR-30P	EDC-33P	Digital Frequency 64Hz-10kHz	0-6 kHz
9	Ultra FEI	Auracle CRM2120	N/A	Voltage 0-5 VDC	0-5 VDC
10	Aerospace Logic	FL25X	N/A	Voltage 0-5 VDC	0-5 VDC
11	Aerospace Logic	FL20XD	N/A	Digital Frequency 64Hz-10kHz	10-300 Hz
12	Aerospace Logic	FL21X	N/A	Voltage 0-1 VDC	0-1 VDC
13	Aerospace Logic	FL20X	N/A	Voltage 0-1 VDC	0-1 VDC
14	Garmin	G1000	GEA 71	Voltage 0-5 VDC	0-5 VDC
15	Garmin	G950	GEA 71	Voltage 0-5 VDC	0-5 VDC
16	Garmin	G1000	GEA 71	Voltage 0-1 VDC	0-1 VDC
17	Garmin	G950	GEA 71	Voltage 0-1 VDC	0-1 VDC
18	Garmin	G1000	GEA 71	Digital Frequency 64Hz-10kHz	0-100 kHz
19	Garmin	G950	GEA 71	Digital Frequency 64Hz-10kHz	0-100 kHz
20	Rochester Gauges	FQ-40XX Series	N/A	Voltage 0-1 VDC	0-1 VDC
21	JP Instruments	EDM 960	EDM 950	Voltage 0-5 VDC	0-4.7 VDC
22	JP Instruments	EDM 960	EDM 950	Digital Frequency 64Hz-10kHz	0-100 kHz
23	Garmin	G500/G600 Txi	GEA 110	Voltage 0-5 VDC	0-5 VDC
24	Garmin	G500/G600 Txi	GEA 110	Digital Frequency 64Hz-10kHz	0-30,000 Hz
25	Garmin	G2000	GEA 71	Voltage 0-1 VDC	0-1 VDC
26	Avidyne	EX5000	AI740	Voltage 0-1 VDC	0-1 VDC

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ISSUE DATE: March 14, 2017

27	Avidyne	EX5000	AI380	Voltage 0-1 VDC	0-1 VDC
28	Avidyne	EX5000	AI215	Voltage 0-1 VDC	0-1 VDC
29	Avidyne	EX5000	AI700	Voltage 0-1 VDC	0-1 VDC

¹LRU – line replaceable unit receives or converts the fuel sender output signal to provide the input signal to the cockpit display instrument.