

United States of America
Department of Transportation -- Federal Aviation Administration
Supplemental Type Certificate

Number SA01405WI

This certificate issued to Mooney Airplane Company, Inc.
165 Al Mooney Drive North
Kerrville, Texas 78028

certifies that the change in the type design for the following product with the limitations and conditions therefore as specified hereon meets the airworthiness requirements of Part 23 of the Federal Aviation Regulations.

Original Product--Type Certificate Number: 2A3
Make: Mooney
Model: M20M, M20R

Description of Type Design Change:

Installation of the Garmin GFC 700 Automatic Flight Control System and TAWS Option in the Mooney M20M / M20R Aircraft in accordance with (1) Garmin Master Drawing List 005-00343-02, Revision B, dated October 6, 2006 and (2) Garmin Document No. 190-00638-00, FAA Approved Airplane Flight Manual Supplement, Revision A, dated October 6, 2006, or later FAA Approved Revision to (1) or (2).

Limitations and Conditions:

1. M20M and M20R aircraft equipped with a G1000 Integrated Avionics System and STEC Autopilot System are eligible for this STC.
2. The modified aircraft must be maintained in accordance with the applicable Instructions for Continued Airworthiness (ICA) identified on the MDL.
3. Compatibility of this design change with previously approved modifications must be determined by the installer.
4. If the holder agrees to permit another person to use this certificate to alter the product, the holder shall give the other person written evidence of that permission.

(See Continuation page 3 of 3)

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application: October 28, 2005

Date reissued: November 17, 2006

Date of issuance: October 6, 2006

Date amended:



By direction of the Administrator

Original signed by Harvey E. Nero

(Signature)

Harvey E. Nero
FAA Program Manager
Wichita Aircraft Certification Office

(Title)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

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Certification Basis (continued from Page 1):

With respect to the modifications of this STC, the applicant has complied with the following certification basis:

- a. The type certification basis for Mooney M20M and M20R airplanes is shown on TCDS 2A3 for parts **not changed or not affected** by the change.
- b. The certification basis for parts **changed or affected** by the change since the reference date of application, is based upon Part 23 as amended by Amendment 23-55. The certification basis for this modification was determined to be:

Regulations at the latest Amendment 23-0 through 23-55.

14 CFR Part	Amendment	14 CFR Part	Amendment
§ 23.143(a)(b)(c)	23-50	§ 23.867(a)(b)	23-49
§ 23.301(a)	23-48	§ 23.1301(a)(b)(c)(d)	23-20
§ 23.303	-	§ 23.1309(a)(b)(c)(d)(e)(f)	23-49
§ 23.305(a)(b)	23-45	§ 23.1311(a)(b)(c)	23-49
§ 23.307(a)	-	§ 23.1321(a)(c)(e)	23-49
§ 23.395(a)(1)	23-7	§ 23.1322(a)(b)(c)(d)(e)	23-43
§ 23.397(a)(b)	23-45	§ 23.1329(a)(b)(c)(d)(e)(f)(h)	23-49
§ 23.561(a)(b)(2)	23-48	§ 23.1335	23-20
§ 23.601	-	§ 23.1351(a)(g)	23-49
§ 23.603(a)(b)	23-23	§ 23.1353(h)	23-49
§ 23.605	23-23	§ 23.1357(a)(b)(c)(d)	23-43
§ 23.607	-	§ 23.1359(a)(b)(c)	23-49
§ 23.609(a)(b)	-	§ 23.1365(a)(b)(d)(e)	23-49
§ 23.611	-	§ 23.1367(a)(b)(c)(d)	-
§ 23.613(a)(b)(c)	23-45	§ 23.1381(a)(b)	-
§ 23.625(a)	23-7	§ 23.1431(a)(b)(e)	23-49
§ 23.671(a)(b)	-	§ 23.1525	23-45
§ 23.677(a)(d)	23-49	§ 23.1529	23-26
§ 23.685(a)(c)(d)	23-17	§ 23.1541(b)(1)(c)(2)	23-21
§ 23.689(a)(1)(2)(3)(b)(c)(d)(e)	23-7	§ 23.1555(a)	23-50
§ 23.771(a)	23-14	§ 23.1581(a)(b)(2)(c)(d)(f)	23-50
§ 23.777(a)(b)	23-51	§ 23.1583(h)(m)	23-50
§ 23.779(a)	23-51	§ 23.1585(j)	23-50

Special Conditions 23-177-SC; GFC 700 AFCS on the Mooney M20M and M20R with G1000 EFIS; Protection of Systems for High Intensity Radiated Fields (HIRF)

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