

ÚRAD PRO CIVILNÍ LETECTVÍ CESKÁ REPUBLIKA Sekce technická

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PRÍKAZ K ZACHOVÁNÍ LETOVÉ ZPUSOBILOSTI

Císlo: 2005-01-19

Datum úcinnosti: 23.února 2005

GARMIN International Inc.

GTX 33, GTX 33D, GTX 330,

GTX 330D

Tento PZZ je vydáván pro výrobek transferovaný pod pusobnost EASA

Na základe rozhodnutí EASA je následující Príkaz k zachování letové zpusobilosti závazný pro všechny výrobky provozované v EU na které se daný PZZ vztahuje.

Provedení PZZ, který se vztahuje podle typu a výrobního císla na výrobek je pro provozovatele/vlastníka letadla zapsaného do leteckého rejstríku závazné. Neprovedením PZZ ve stanoveném termínu dojde ke ztráte letové zpusobilosti výrobku.

Poznámky:

⁻ Provedení tohoto PZZ musí být zapsáno do provozní dokumentace letadla.

⁻ Prípadné dotazy týkající se tohoto PZZ adresujte na ÚCL sekce technická.

⁻ Pokud to vyžaduje povaha tohoto PZZ, musí být zapracován do príslušné cásti dokumentace pro obsluhu, údržbu a opravy letadla.

[Federal Register: January 19, 2005 (Volume 70, Number 12)]
[Rules and Regulations]
[Page 2937-2941]
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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2004-18743; Directorate Identifier 2004-CE-23-AD; Amendment 39-13944; AD 2005-01-19]

RIN 2120-AA64

Airworthiness Directives; GARMIN International Inc. GTX 33, GTX 33D, GTX 330, and GTX 330D Mode S Transponders

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) to supersede Airworthiness Directive 2004-10-15, which applies to certain GTX 330 and GTX 330D Mode S transponders that are installed on airplanes. AD 2004-10-15 currently requires you to install GTX 330/330D Software Upgrade Version 3.03, 3.04, or 3.05. This AD applies to certain GTX 33, GTX 33D, GTX 330, and GTX 330D Mode S transponders that are installed on airplanes and is the result of observations that the GTX 33/33D/330/330D may detect, from other airplanes, the S1 (suppression) interrogating pulse below the minimum trigger level (MTL) and, in some circumstances, not reply. The GTX 33/33D/330/330D should still reply even if it detects S1 interrogating pulses below the MTL. Consequently, this AD would require you to install a GTX 33/33D/330/330D Software Upgrade to at least Version 3.06. No additional action is necessary for those airplanes that have transponders Software Upgrade 3.03 installed. Software Upgrade Versions 3.03 and 3.06 correct a TAS, TCAD, and TCAS I system "whisper-shout" problem that could potentially lead to the aircraft not being visible at certain ranges. TCAS II systems are not affected. We are issuing this AD to prevent interrogating aircraft from possibly receiving inaccurate replies due to suppression from aircraft equipped with the GTX 33/33D/330/330D Mode S transponders when the pulses are below the MTL. The inaccurate replies could result in reduced vertical separation.

DATES: This AD becomes effective on February 23, 2005.

As of February 23, 2005, the Director of the Federal Register approved the incorporation by reference of certain publications listed in the regulation.

ADDRESSES: To get the service information identified in this AD, contact GARMIN International Inc., 1200 East 151st Street, Olathe, KS 66062; telephone: 913-397-8200. To review this service

information, go to the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, go to:

http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html or call (202) 741-6030.

To view the AD docket, go to the Docket Management Facility; U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL-401, Washington, DC 20590-001 or on the Internet at http://dms.dot.gov. The docket number is FAA-2004-18743.

FOR FURTHER INFORMATION CONTACT: Roger A. Souter, FAA, Wichita Aircraft Certification Office (ACO), 1801 Airport Road, Room 100, Wichita, Kansas 67209; telephone: 316-946-4134; facsimile: 316-946-4107; e-mail address: roger.souter@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

What events have caused this AD? The GTX 330/GTX 330D may detect from other aircraft the S1 (suppression) interrogating pulse below the MTL and, in some circumstances, does not reply. The GTX 330/330D should still reply even if it detects S1 interrogating pulses below the MTL, and this caused FAA to issue AD 2004-10-15, Amendment 39-13645 (69 FR 29212, dated May 21, 2004). AD 2004-10-15 currently requires the incorporation of GTX 330/330D Software Upgrade to at least Version, 3.03, 3.04, or 3.05 on certain GTX 330 and GTX 330D Mode S transponders that are installed on airplanes.

What has happened since AD 2004-10-15 to initiate this action? After the issuance of AD 2004-10-15, GARMIN International Inc. discovered that minor changes made to GTX 330/330D Software Upgrades 3.04 and 3.05 inadvertently removed the correction to not suppress the S1 pulse below MTL. Garmin also discovered the Software Upgrade must be installed on GTX 33 and GTX 33D Mode S transponders as well as the GTX 330 and GTX 330D Mode S transponders.

What is the potential impact if FAA took no action? If these changes are not incorporated, then interrogating aircraft could possibly receive inaccurate replies due to suppression from aircraft equipped with the GTX 33/33D/330/330D Mode S transponders when the pulses are below the MTL. Software Upgrade Version 3.03 and 3.06 correct a TAS, TCAD, and TCAS I system "whisper-shout" problem that could potentially lead to the aircraft not being visible at certain ranges. TCAS II systems are not affected. The inaccurate replies could result in reduced vertical separation.

Has FAA taken any action to this point? We issued a proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an AD that would apply to certain GTX 330 and GTX 330D Mode S transponders that are installed on airplanes. This proposal was published in the Federal Register as a notice of proposed rulemaking (NPRM) on October 7, 2004 (69 FR 60100). The NPRM proposed to require you to install GTX 33/33D/330/330D Software Upgrade Version 3.03 or 3.06.

Comments

Was the public invited to comment? We provided the public the opportunity to participate in developing this AD. The following presents the comments received on the proposal and FAA's response to each comment:

Comment Issue: Direct the AD Only to Those Products That Have the Old SW Versions 3.00, 3.01, 3.02, 3.04, and 3.05

What is the commenter's concern? The NPRM currently requires installation of GTX 330/330D Software Upgrade Version 3.03 or 3.06 to comply with the proposed AD, or later Software Versions by way of an AMOC. The commenter would like to direct the AD only to those products that have the old software versions 3.00, 3.01, 3.02, 3.04, and 3.05 installed; so that if the new software version 3.06 or later is installed the AD does not affect that product. The AD should not apply to future software versions.

What is FAA's response to the concern? We concur. This was the intent of the NPRM, and we have reworded the AD to reflect this comment.

Conclusion

What is FAA's final determination on this issue? We have carefully reviewed the available data and determined that air safety and the public interest require adopting the AD as proposed except for the changes discussed above and minor editorial corrections. We have determined that these changes and minor corrections:

- -Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and
- -Do not add any additional burden upon the public than was already proposed in the NPRM.

Docket Information

Where can I go to view the docket information? You may view the AD docket that contains information relating to this subject in person at the DMS Docket Offices between 9 a.m. and 5 p.m. (eastern standard time), Monday through Friday, except Federal holidays. The Docket Office (telephone 1-800-647-5227) is located on the plaza level of the Department of Transportation NASSIF Building at the street address stated in ADDRESSES. You may also view the AD docket on the Internet at http://dms.dot.gov.

Changes to 14 CFR Part 39-Effect on the AD

How does the revision to 14 CFR part 39 affect this AD? On July 10, 2002, the FAA published a new version of 14 CFR part 39 (67 FR 47997, July 22, 2002), which governs the FAA's AD system. This regulation now includes material that relates to altered products, special flight permits, and alternative methods of compliance. This material previously was included in each individual AD. Since this material is included in 14 CFR part 39, we will not include it in future AD actions.

Costs of Compliance

How many airplanes does this AD impact? We estimate that this AD affects 5,400 airplanes in the U.S. registry.

What is the cost impact of this AD on owners/operators of the affected airplanes? Garmin International Inc. will provide warranty only for Service Bulletin No. 0409, dated July 19, 2004 (which incorporates Software Upgrade 3.06) installation as specified in the service information. Although Software Upgrade 3.03 is still in compliance with this proposed AD, if previously installed, Software Upgrade 3.03 is no longer available through Garmin.

Authority for This Rulemaking

What authority does FAA have for issuing this rulemaking action? Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106 describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this AD.

Regulatory Findings

Will this AD impact various entities? We have determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

Will this AD involve a significant rule or regulatory action? For the reasons discussed above, I certify that this AD:

- 1. Is not a "significant regulatory action" under Executive Order 12866;
- 2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and
- 3. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a summary of the costs to comply with this AD and placed it in the AD Docket. You may get a copy of this summary by sending a request to us at the address listed under ADDRESSES. Include "Docket No. FAA-2004-18743; Directorate Identifier 2004-CE-23-AD" in your request.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39-AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. FAA amends § 39.13 by removing AD 2004-10-15, Amendment 39-13645 and adding a new AD to read as follows:

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service Washington, DC

U.S. Department of Transportation Federal Aviation Administration

We post ADs on the internet at "www.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2005-01-19 GARMIN International Inc.: Amendment 39-13944; Docket No. FAA-2004-18743; Directorate Identifier 2004-CE-23-AD.

When Does This AD Become Effective?

(a) This AD becomes effective on February 23, 2005.

What Other ADs Are Affected by This Action?

(b) This AD supersedes AD 2004-10-15, Amendment 39-13645.

What Airplanes Are Affected by This AD?

(c) This AD affects GARMIN International Inc. GTX 33, GTX 33D, GTX 330, and GTX 330D Mode S transponders that include software versions 3.00, 3.01, 3.02, 3.04, or 3.05 that are installed on, but not limited to, the following airplanes, certificated in any category:

| Manufacturer | Model | |
|-------------------|--|--|
| (1) Aermacchi | S.205–18/F, S.205–18/R, S.205–20/R, S.205–22/R, S208, S.208A, F.260, | |
| S.p.A | F.260B, F.260C, F.260D, F.260E, F.260F, S.211A. | |
| (2) Aeronautica | AL 60, AL 60–B, AL 60–F5, AL 60–C5, AM–3. | |
| Macchi S.p.A | | |
| (3) Aerostar | PA-60-600 (Aerostar 600), PA-60-601 (Aerostar 601), PA-60-601P (Aerostar | |
| Aircraft | 601P), PA-60-602P (Aerostar 602P), PA-60-700P (Aerostar 700P), 360, 400. | |
| Corporation | | |
| (4) Alexandria | 14–19, 14–19–2, 14–19–3, 14–19–3A, 17–30, 17–31, 17–31TC, 17–30A, 17– | |
| Aircraft, LLC | 31A, 17–31ATC | |
| (5) Alliance | 15A, 20, H–250, H–295 (USAFU–10D), HT–295, H391 (USAFYL–24), H391B, | |
| Aircraft Group | H–395 (USAFL–28A or U–10B), H–395A, H–700, H–800, HST–550, HST– | |
| LLC | 550A (USAF AU–24A), 500. | |
| (6) American | 402, 7GCA, 7GCB, 7KC, 7GCBA, 7GCAA, 7GCBC, 7KCAB, 8KCAB, | |
| Champion | 8GCBC. | |
| Aircraft Corp | | |
| (7) Sky | A-1, A-1A, A-1B, S-1S, S-1T, S-2, S-2A, S-2S, S-2C. | |
| International Inc | | |
| (8) B–N Group | BN-2, BN-2A, BN-2A-2, BN-2A-3, BN-2A-6, BN-2A-8, BN-2A-8, BN- | |
| Ltd | 2A-20, BN-2A-21, BN-2A-26, BN-2A-27, BN-2B-20, BN-2B-21, BN-2A- | |
| | 26, BN-2A-27, BN-2B-20, BN-2B-21, BN-2B-26, BN-2B-27, BN-2T, BN- | |
| | 2T–4R, BN–2A MK.III, BN2A MK. III–2, BN2A MK. 111–3. | |

| (9) Bellanca | 14–13, 14–13–2, 14–13–3, 14–13–3W. | | | |
|---------------------|--|--|--|--|
| (10) Bombardier | (Otter) DHC–3, DHC–6–1, DHC–6–100, DHC–6–200, DHC–6–300. | | | |
| Înc | | | | |
| (11) Cessna | 170, 170A, 170B, 172, 172A, 172B, 172C, 172D, 172E, 172F (USAF T-41A), | | | |
| Aircraft Company | 172G, 172H (USAF T041A), 172I, 172K, 172L, 172M, 172N, 172P, 172Q, | | | |
| 1 , | 172R, 172S, 172RG, P172D, R172E (USAF T-41 B) (USAF T-41 C AND D), | | | |
| | R172F (USAF T-41 D), R175G, R172H (USAF T-41 D), R172J, R172K, 175, | | | |
| | 175A, 175B, 175C, 177, 177A, 177B, 177RG, 180, 180A, 180B, 180C, 180D, | | | |
| | 180E, 180F, 180G, 180H, 180J, 180K, 182, 182A, 182B, 182C, 182D, 182E, | | | |
| | 182F, 182G, 182H, 182J, 182K, 182L, 182M, 182N, 182P, 182Q, 182R, 182S, | | | |
| | 182T, R182, T182, TR182, T182T, 185, 185A, 185B, 185C, 185D, 185E, | | | |
| | A185E, A185F, 190, (LC–126A, B, C) 195, 195A, 195B, 210, 210A, 210B, | | | |
| | 210C, 210D, 210E, 210F, T210F, 210G, T210G, 210H, T210H, 210J, T210J, | | | |
| | 210K, T210K, 210L, T210L, 210M, T210M, 210N, P210N, T210N, 210R, | | | |
| | P210R, T210R, 210–5 (205), 210–5A (205A), 206, P206, P206A, P206B, P206C, | | | |
| | P206D, P206E, TP206A, TP206B, TP206C, TU206D, TU206E, TU206F, | | | |
| | TU206G, 206H, T206H, 207, 207A, T207, T207A, 208, 208A, 208B, 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, | | | |
| | T310Q, 310R, T310R, 320, 320A, 320B, 320C, 320D, 320E, 320F, 320–1, 335, 340, 340A, 336, 337, 337A (USAF 02B), 337B, T337B, 337C, 337E, T337E, | | | |
| | T337C, 337D, T337D, M337B (USAF 02A), 337F, T337F, T337G, 337G, 337H, | | | |
| | P337H, T337H, T337H–SP, 401, 401A, 401B, 402, 402A, 402B, 402C, 411, | | | |
| | 411A, 414, 414A, 421, 421A, 421B, 421C, 425, 404, 406, 441. | | | |
| (12) Cirrus | SR20, SR22. | | | |
| Design | ~ _ | | | |
| Corporation | | | | |
| (13) Commander | 112, 112TC, 112B, 112TCA, 114, 114A, 114B, 114TC. | | | |
| Aircraft Company | | | | |
| (14) de Havilland | DHC-2 Mk. I, DHC-2 Mk. II, DHC-2 Mk. III. | | | |
| Inc | | | | |
| (15) Dynac | (Volaire) 10, (Volaire) 10A, (Aero Commander) 100, (Aero Commander) 100A, | | | |
| Aerospace | (Aero Commander) 100–180. | | | |
| Corporation | | | | |
| (16) Diamond | DA 20–A1, DA20–C1, DA 40. | | | |
| Aircraft | | | | |
| Industries | ELED 11001 ELED 11000 | | | |
| (17) Empressa | EMB-110P1, EMB-110P2. | | | |
| Brasileira de | | | | |
| Aeronautica S.A. | | | | |
| EMBRAER. | EA200 EA2001 EA2008 EA200/200 EA 400 | | | |
| (18) Extra | EA300, EA300L, EA300S, EA300/200, EA-400. | | | |
| Flugzeugbau Gmbh | | | | |
| (19) Fairchild | SA26-T, SA26-AT, SA226-T, SA226-AT, SA226-T(B), SA227-AT, SA227- | | | |
| Aircraft | TT, SA226–TC, SA227–AC (C–26A), SA227–CC, SA227–DC (C–26B). | | | |
| Corporation | 11, 5/1220-10, 5/1227-10 (C-2017), 5/1227-00, 5/1227-00 (C-2011). | | | |
| (20) Global | Colonial C–1, Colonial C–2, Lake LA–4, Lake LA–4A, Lake LA–4P, Lake LA– | | | |
| Amphibians, LLC | 4–200, Lake Model 250. | | | |
| (21) Grob-Werke | G115, G115A, G115B, G115C, G115C2, G115D, G115D2, G115EG, G120A. | | | |
| (21) 5156 WEIRE | 212, 2121, 2122, 2122, 2122, 2122, 3122, 31222, 31223, 31223, | | | |

| M-6-180, M-6-235, M-7-235, MX-7-235, MX-7-180, MX-7-420, 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, M-7-420AC, MX-7-160C, MX-7-180AC, M-7- 420A, MT-7-420. (28) Mitsubishi MU-2B-25, MU-2B-35, MU-2B-26, MU-2B-36, MU-2B-26A, MU-2B- Heavy Industries, 36A, MU-2B-40, MU-2B-60, MU-2B, MU-2B-20, MU-2B-15. Ltd (29) Mooney M20, M20A, M20B, M20C, M20D, M20E, M20F, M20G, M20J, M20K, M20L, Airplane M20M, M20R, M20S, M22. Company, Inc (30) Moravan a.s Z-242L, Z-143L. (31) Navion NAVION, Navion (L-17A), Navion (L17B), Navion (L-17C), Navion B, Navion | (22) Lancair | LC40-550FG. |
|--|-------------------|---|
| Aerospace, LLC (24) Learjet Inc. (25) Lockheed Aircraft Corporation (26) Luscombe Aircraft Corporation (27) Maule Aerospace Technology, Inc M-4-210C, M-4-210C, M-4-210C, M-4-210T, M-4-220C, M-4-220C, M-5-235C, M-6-180, M-6-235, M-7-235, MX-7-180, MX-7-180A, MXT-7- 180, MT-7-235, M-8-235, MX-7-235, MX-7-130, MX-7-180A, MXT-7- 180A, MX-7-180B, M-7-235B, M-7-235A, M-7-235C, MX-7-180A, MXT-7- 180A, MT-7-260, M-7-260C, M-7-220C, M-7-230C, MX-7-180A, MXT-7- 180A, MT-7-420. (28) Mitsubishi Heavy Industries, Ltd (29) Mooney Airplane (29) Mooney Airplane (20) MOrawan a.s 2-242L, Z-143L. (30) Morawan a.s NAVION, Navion (L-17A), Navion (L17B), Navion (L-17C), Navion B, Navion D, Navion E, Navion F, Navion G, Navion H. (30) Morawan a.s NAVION, Navion (L-17A), Navion (L17B), Navion (L-17C), Navion B, Navion D, Navion E, Navion F, Navion G, Navion H. (Special), PA-18A, PA-18 "125" (Army L-21A), PA-18S "125," PA-18AS "125," PA-18 "135" (Army L-21B), PA-18S "150," PA-18S "150," PA-18AS "150," PA-18A, PA-18 "155" (Army L-21A), PA-18S "150," PA-18 S"155," PA-28 140, PA-22-150, PA-22-160, PA-22-150, PA-223-160, PA-23-35, PA-23-160, PA-23-35, PA-23-160, PA-28-160, PA-28-180, PA-28-180, PA-28-180, PA-28-180, PA-28-180, PA-28-180, PA-28-180, PA-28-180, PA-28-180, PA-28-190, PA-28-28-160, PA-28-180, PA-28-190, PA-28-28-210, PA-28-210, PA-2 | | 14. G 10. G 14. G |
| (24) Learjet Inc. 23. (25) Lockheed Aircraft Corporation (26) Luscombe Aircraft Corporation (27) Maule Aerospace Technology, Inc Technology, Inc May 1 (1977) 180, MT-7-210, M-4-210C, M-4-210C, M-4-210C, M-4-220C, M-5-235C, M-6-180, M-6-235, M-7-250, M-7-235, M-7-235, M-7-235, M-7-235, M-7-235, M-7-235, M-7-235, M-7-260, MT-7-260, MT-7-250, MT-7-260, MT-7-280, MT-7 | ` ' | MAC-125C, MAC-145, MAC-145A, MAC-145B. |
| (25) Lockheed Aircraft Corporation (26) Luscombe Aircraft Corporation (27) Maule Aerospace Technology, Inc Tec | | |
| Aircraft Corporation (26) Luscombe Aircraft Corporation (27) Maule Aerospace Technology, Inc M-4-210, M-4-210C, M-4-210S, M-4-210T, M-4-220, M-4-220S, M-4-220T, M-5-216C, M-5-210TC, M-5-220C, M-5-235C, M-6-180, M-6-235, M-7-235, M-7-235, M-7-235, M-7-235, M-7-235C, M-7-180C, M-7-180A, MXT-7-180B, MT-7-235, M-8-235, MX-7-160, MXT-7-160, MXT-7-180A, MXT-7-180B, M-7-260, M-7-260, M-7-240AC, MX-7-160C, MX-7-180C, M-7-260, MT-7-260, M-7-260, M-7-240AC, MX-7-160C, MX-7-180AC, M-7-240AC, MX-7-180AC, MX-7-180AC, M-7-240AC, MX-7-180AC, MX-7-180AC, M-7-240AC, MX-7-180AC, | | |
| Corporation (26) Luscombe Aircraft Corporation (27) Maule Aerospace M-4_210, M-4_210C, M-4_210S, M-4_210T, M-4_220, M-4_220S, M-4_210T, M-4_210, M-4_210C, M-4_210C, M-5_210TC, M-5_220C, M-5_235C, M-6_180, M-6_235, M-7_235, MX-7_180, MXT-7_420, MXT-7_180, MT-7_235, MS-7_180, MXT-7_180A, MXT-7_180A, MXT-7_180B, M-7_235B, M-7_235A, M-7_235C, MX-7_180A, MXT-7_260, MT-7_260, MT- | ` ' | 18. |
| (26) Luscombe Aircraft Corporation (27) Maule Aerospace Technology, Inc (27) Maule Aerospace Technology, Inc (28) Mitsubishi Heavy Industries, Ltd (29) Mooney Aircraft Company, Inc (30) Moravan a.s (31) Navion Aircraft Company, Ltd (32) New Piper Aircraft, Inc (32) New Piper Aircraft, Inc (32) New Piper Aircraft, Inc (33) Moravan 3.s (34) Ray (35) Ray (36) Ray (37) Ray (38) Ray (38) Ray (39) Ray (30) Ray (30) Ray (30) Ray (30) Ray (31) Ray (32) Ray (33) Ray (34) Ray (35) Ray (36) Ray (37) Ray (38) Ray (38) Ray (39) Ray (39) Ray (30) Ray | | |
| Aircraft Corporation (27) Maule Aerospace Bee Dee M-4, M-4, M-4C, M-4S, M-4T, M-4180C, M-4-180S, M-4-180T, M-4-210, M-4-210C, M-4-210S, M-4-210T, M-4-220, M-4-220S, M-4- 220T, M-5-180C, M-5-200, M-5-235C, M-5-235C, M-6-180, M-6-235, M-7-235, MX-7-160, MXT-7-160, MXT-7-180A, MXT-7- 180, MT-7-235, M-8-235, MX-7-160, MXT-7-160, MXT-7-180A, MXT-7- 260, MT-7-260, M-7-260C, M-7-420AC, MX-7-180C, M-7- 260, MT-7-260, M-7-260C, M-7-420AC, MX-7-160C, MX-7-180AC, M-7- 420A, MT-7-420. (28) Mitsubishi MU-2B-25, MU-2B-35, MU-2B-26, MU-2B-36, MU-2B-26A, MU-2B- 36A, MU-2B-40, MU-2B-60, MU-2B, MU-2B-20, MU-2B-15. (29) Mooney Airplane Company, Inc (30) Moravan a.s. (31) Navion Aircraft Company, Ltd (32) New Piper Aircraft, Inc (32) New Piper Aircraft, Inc (34) M-34 M-48 M-48 M-48 M-48 M-48 M-48 M-48 M-4 | | |
| Corporation (27) Maule Aerospace He-4, M-4, M-4C, M-4S, M-4T, M-4180C, M-4-180S, M-4-180T, Aerospace Technology, Inc (20) M. 4-210C, M-4-210S, M-4-210T, M-4-220, 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-7-180, MX-7-420, MX-7-180A, MX-7-180A, MX-7-180A, MX-7-180B, M-7-235S, MX-7-180A, MX-7-180A, MX-7-180A, MX-7-180A, MX-7-180B, M-7-235S, MX-7-180C, MX-7-180C, M-7-260, MT-7-260, M-7-250C, M-7-2420A, MX-7-160C, MX-7-180AC, M-7-420A, MT-7-420. (28) Mitsubishi M-2B-25, MU-2B-35, MU-2B-26, MU-2B-36, MU-2B-26A, MU-2B-40A, MT-7-420. (29) Mooney Airplane M20, M20A, M20B, M20C, M20D, M20E, M20F, M20G, M20J, M20K, M20L, M20M, M20R, M20S, M22. Company, Inc (30) Moravan a.s (30) Moravan a.s Z-242L, Z-143L. (31) Navion Aircraft Company, Ltd (32) New Piper Aircraft, Inc PA-12, PA-12S, PA-18, PA-18S, PA-18 "105" (Special), PA-18S "105" (Special), PA-18A, PA-18 "150," PA-18A "135," PA-18S "150," PA-18S "155," PA-18A "155," PA-18 "150," PA-18A "150," PA-18A "150," PA-18A "150," PA-18A "150," PA-28-150, PA-22-1760, PA-22-175, PA-23-175, PA-22-1750, PA-223-1750, PA-22-1760, PA-22-1760, PA-22-1750, PA-22-1750, PA-22-1750, PA-22-1750, PA-28-150, PA-22-1750, PA-28-160, PA-28-161, PA-28-180, PA-28-179, PA-3173, PA-3 | | 11A, 11E. |
| (27) Maule Aerospace Bee Dee M-4, M-4, M-4C, M-4S, M-4T, M-4180C, M-4-180T, M-4-210C, M-4-210S, M-4-210T, M-4-220, M-4-220C, M-5-235C, M-6-180, M-6-235, M-7-235, MX-7-180, MX-7-420, MX-7-180A, MXT-7-180A, MXT-7-180A, MXT-7-180A, MXT-7-235, MX-7-180A, MXT-7-260, MT-7-260, M-7-235B, M-7-235A, M-7-235C, MX-7-180A, MXT-7-180A, MXT-7-180A, MXT-7-260, MT-7-260, M-7-260C, M-7-420AC, MX-7-160C, MX-7-180AC, M-7-420A, MT-7-420. (28) Mitsubishi Heavy Industries, Ltd (29) Mooney Airplane M20, M20B, M20C, M20D, M20E, M20F, M20G, M20J, M20K, M20L, M20M, M20R, M20S, M22. (28) Misubishi M20A, M20B, M20C, M20D, M20E, M20F, M20G, M20J, M20K, M20L, M20M, M20R, M20S, M22. (28) Mooney M20A, M20B, M20C, M20D, M20E, M20F, M20G, M20J, M20K, M20L, M20M, M20R, M20S, M22. (30) Moravan a.s. (31) Navion M20R, M20S, M22. (31) Navion M20R, M20S, M22. (32) New Piper Aircraft (33) Navion M20B, M20C, M20B, | | |
| Aerospace Technology, Inc Technology, Inc Technology, Inc Technology, Inc Technology, Inc M-4-210, M-4-210C, M-5-200, M-5-210TC, M-5-210TC, M-5-220C, M-5-235C, M-6-180, M-6-235, M-7-235, MX-7-160, MXT-7-180, MXT-7-180, MXT-7-180, MXT-7-180, MXT-7-180, MXT-7-180, MXT-7-160, MXT-7-160, MXT-7-180A, MXT-7-180A, MXT-7-180A, MXT-7-260, MT-7-260, M-7-235, M-7-235, M-7-235C, MX-7-180C, M-7-260, MT-7-260, M-7-260C, M-7-420AC, MX-7-160C, MX-7-180AC, M-7-420A, MTT-7-420. (28) Mitsubishi Heavy Industries, Ltd U-2B-25, MU-2B-35, MU-2B-36, MU-2B-36, MU-2B-26A, MU-2B-36A, MU-2B-40, MU-2B-60, MU-2B, MU-2B-30, MU-2B-15. M20, M20A, M20B, M20C, M20D, M20E, M20F, M20G, M20J, M20K, M20L, M20M, M20R, M20S, M22. Company, Inc (30) Moravan a.s V-242L, Z-143L. NAVION, Navion (L-17A), Navion (L17B), Navion (L-17C), Navion B, Navion Aircraft D, Navion E, Navion F, Navion G, Navion H. (32) New Piper Aircraft, Inc M2-12, PA-12S, PA-18, PA-18S, PA-18 "105" (Special), PA-18S "105" (Special), PA-18S "125," PA-18 "135" (Army L-21B), PA-18S "125," PA-18S "125," PA-18S "150," PA-18S "150," PA-18A "150," PA-18S "150," PA-18S "150," PA-18A "150," PA-20S "135," PA-20S "135," PA-22S-150, PA-22S-150, PA-22S-150, PA-22S-150, PA-22S-150, PA-22S-150, PA-22S-150, PA-28-151, PA-28-161, PA-28-180, PA-28-1235, PA-28-1235, PA-28-121, PA-28-1201, PA-28R-201T, PA-28R-180, PA-28R-180, PA-28R-180, PA-28-111, PA-31T2, PA-31T3, PA-31P-350, PA-32R-300T, PA-32R-300, PA-32R-300, PA-32R-300T, PA-32-301T, PA-34-200T, PA-34-200T, PA-34-200T, PA-44-40-180T, PA-44-400, PA-42-720, PA-42-720, PA-42-720, PA-42-720R, PA-44-180, PA-44-180T, PA-44-400, PA-32R-301T, PA-32-301T, PA-32-301T, PA-34-200T, PA-34- | | |
| Technology, Inc 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, MX-7-420, MXT-7-180, MX-7-180B, MT-7-235, MX-7-235, MX-7-235, MX-7-180C, MX-7-180C, MX-7-180B, MT-7-25B, MX-7-235B, MX-7-235C, MX-7-180C, M-7-260, MT-7-260, MT-7-260, M-7-260C, M-7-420AC, MX-7-160C, MX-7-180AC, M-7-420A, MT-7-420, MT-7-420, MT-7-420A, MT-7-420, MT-7-420A, MT-7-420, MT-7-420AC, MX-7-160C, MX-7-180AC, M-7-420A, MT-7-420, MT-2B-35, MU-2B-36, MU-2B-36, MU-2B-26A, MU-2B-36A, MU-2B-36 | • • | |
| M-6-180, M-6-235, M-7-235, MX-7-180, MX-7-420, MXT-7-180, MT-7-235, M-8-235, MX-7-160, MXT-7-180, MXT-7-180A, MXT-7-180A, MXT-7-180B, MT-7-235B, M-7-235B, M-7-235B, M-7-235C, MX-7-180C, MX-7-180C, MX-7-180C, MX-7-260, MT-7-260, MT-7-260C, M-7-420AC, MX-7-160C, MX-7-180C, MX-7-180C, M-7-420A, MT-7-420. (28) Mitsubishi MU-2B-25, MU-2B-35, MU-2B-26, MU-2B-36, MU-2B-26A, MU-2B-184, MU-2B-25, MU-2B-35, MU-2B-26, MU-2B-20, MU-2B-15. Ltd (29) Mooney Airplane Company, Inc (30) Moravan a.s. Z-242L, Z-143L. (31) Navion Aircraft Company, Ltd (32) New Piper Aircraft, Inc (32) New Piper Aircraft, Inc (34) May | Aerospace | |
| 180, MT-7-235, M-8-235, MX-7-160, MXT-7-160, MX-7-180A, MXT-7-180A, MT-7-260, MT-7-260, MT-7-250C, M-7-260C, M-7-260C, M-7-420AC, MX-7-160C, MX-7-180AC, M-7-420A, MT-7-420. (28) Mitsubishi MU-2B-25, MU-2B-35, MU-2B-26, MU-2B-36, MU-2B-26A, MU-2B-36A, MU-2B-40, MU-2B-60, MU-2B-20, MU-2B-20, MU-2B-15. Ltd MU-2B-25, MU-2B-35, MU-2B-26, MU-2B-20, MU-2B-15. Ltd M20M, M20A, M20B, M20C, M20D, M20E, M20F, M20G, M20J, M20K, M20L, M20M, M20A, M20B, M20C, M20D, M20E, M20F, M20G, M20J, M20K, M20L, M20M, M20R, M20S, M22. Company, Inc (30) Moravan a.s Z-242L, Z-143L. (31) Navion Navion Navion (L-17A), Navion (L17B), Navion (L-17C), Navion B, Navion D, Navion E, Navion F, Navion G, Navion H. PA-12, PA-12S, PA-18, PA-18S, PA-18 "105" (Special), PA-18S "105" (Special), PA-18A "150," PA-20 "115," PA-20 "115," PA-20 "115," PA-20 "135," PA-20S "135," PA-22S -150, PA-22, PA-22-160, PA-23, PA-23-160, PA-23-235, PA-23-150, PA-225-150, PA-225-160, PA-225-160, PA-23, PA-23-160, PA-23-235, PA-28-160, PA-28-151, PA-28-150, PA-28-151, PA-28-160, PA-28-180, PA-28-180, PA-28-180, PA-28-180, PA-28-180, PA-28-180, PA-28-181, PA-28-201T, PA-31T3, PA-31T-300, PA-32RT-3001, PA-32R-301 (HP), PA-32R-301T, PA-32R-301T, PA-34-200T, PA-34 | Technology, Inc | |
| 180A, MX-7-180B, M-7-235B, M-7-235A, M-7-235C, MX-7-180C, M-7-260, MT-7-260, MT-7-260, MT-7-260, MT-7-260, MT-7-260, MT-7-260C, M-7-260C, M-7-260C, M-7-420AC, MX-7-160C, MX-7-180AC, M-7-420A, MT-7-420. (28) Mitsubishi MU-2B-25, MU-2B-35, MU-2B-26, MU-2B-36, MU-2B-26A, MU-2B-36A, MU-2B-40, MU-2B-40, MU-2B-60, MU-2B, MU-2B-20, MU-2B-15. Ltd (29) Mooney M20, M20A, M20B, M20C, M20D, M20E, M20F, M20G, M20J, M20K, M20L, M20M, M20R, M20S, M22. Company, Inc (30) Moravan a.s Z-242L, Z-143L. (31) Navion Navion (L-17A), Navion (L17B), Navion (L-17C), Navion B, Navion D, Navion E, Navion F, Navion G, Navion H. (32) New Piper Aircraft, Inc PA-12, PA-12S, PA-18, PA-18S, PA-18 "105" (Special), PA-18S "125," PA-18S "125," PA-18S "125," PA-18S "135," PA-20S "135," PA-20, PA-20S, PA-20, PA-22, PA-20 "115," PA-20S "115," PA-20 "135," PA-20S "135," PA-22-160, PA-22-135, PA-22-135, PA-22-150, PA-223-150, PA-223-150, PA-223-150, PA-223-150, PA-228-160, PA-228-160, PA-23, PA-23-160, PA-23-235, PA-23-250, PA-28-151, PA-28-160, PA-28-181, PA-28-180, PA-28-140, PA-28-150, PA-28-151, PA-28-160, PA-28-181, PA-28-201T, PA-28-201, PA-28R-201T, PA-28R-201T, PA-28R-201T, PA-28R-201T, PA-28R-201T, PA-28R-201T, PA-31T3, PA-31P3-350, PA-32-260, PA-32-300, PA-32R-300, PA-32R-300, PA-32R-301 (HP), PA-32R-301T, PA-32-301T, PA-32-301T, PA-34-200T, PA-34-200T, PA-34-200T, PA-44-180T, PA-44-180T, PA-46-310P, PA-46-350P, PA-46-500TP. (33) Ostmecklenburgis | | M-6-180, M-6-235, M-7-235, MX-7-235, MX-7-180, MX-7-420, MXT-7- |
| 260, MT-7-260, M-7-260C, M-7-420AC, MX-7-160C, MX-7-180AC, M-7-420A, MT-7-420. (28) Mitsubishi Heavy Industries, Ltd (29) Mooney Airplane Company, Inc (30) Moravan a.s (31) Navion Aircraft Company, Ltd (32) New Piper Aircraft, Inc PA-12, PA-12S, PA-18, PA-18S, PA-18 "105" (Special), PA-18S "125," PA-18AS "125," PA-18A "135," PA-18 "135" (Army L-21B), PA-18A "135," PA-18 "135," PA-28 "150, PA-228-150, PA-228-150, PA-228-150, PA-228-160, PA-28-161, PA-28-161, PA-28-20, PA-28-217, PA-28R-201, PA-28R-301, PA-31R-350, PA-32R-301, PA-34-200, PA-34R-34R-301, PA-34R-301, PA-34R-300, PA-34R-301, PA-34R-3 | | 180, MT-7-235, M-8-235, MX-7-160, MXT-7-160, MX-7-180A, MXT-7- |
| (28) Mitsubishi MU-2B-25, MU-2B-35, MU-2B-26, MU-2B-36, MU-2B-26A, MU-2B-15. Ltd (29) Mooney Airplane (20) Mooney Airplane (30) Moravan a.s. Z-242L, Z-143L. (31) Navion Aircraft (32) New Piper Aircraft, Inc (Special), PA-18A, PA-18, PA-18S, PA-18, PA-18S, "125," PA-18AS "150," PA-18A "150," PA-18A "150," PA-18A "150," PA-18A "150," PA-2S-150, PA-22S-150, PA-22S-150, PA-22, PA-22-108, PA-22-135, PA-23-35, PA-23-35, PA-23-35, PA-28-160, PA-28-160, PA-28-161, PA-28-201, PA-38R-301, PA-34-200, PA-34R-301, PA-34R-301, PA-34R-300, PA-34R-301, PA-34R-300, PA-34R-301, PA- | | 180A, MX-7-180B, M-7-235B, M-7-235A, M-7-235C, MX-7-180C, M-7- |
| (28) Mitsubishi Heavy Industries, Ltd MU-2B-25, MU-2B-35, MU-2B-26, MU-2B-36, MU-2B-26A, MU-2B- 36A, MU-2B-40, MU-2B-60, MU-2B, MU-2B-20, MU-2B-15. M20, M20A, M20B, M20C, M20D, M20E, M20F, M20G, M20J, M20K, M20L, M20M, M20R, M20S, M22. M20M, M20R, M20S, M22. Company, Inc (30) Moravan a.s. Z-242L, Z-143L. (31) Navion Aircraft Company, Ltd (32) New Piper Aircraft, Inc PA-12, PA-12S, PA-18, PA-18S, PA-18 "105" (Special), PA-18S "125," PA-18AS "125," PA-18A "135" (Army L-21B), PA-18A "135," PA-18S "125," PA-18A "150," PA-18A "150," PA-18A "150," PA-18A "150," PA-18A "150," PA-20S "135," PA-20 "115," PA-20 "115," PA-20 "115," PA-20 "135," PA-22, PA-22-160, PA-22-135, PA-22-150, PA-22-150, PA-22-160, PA-22-160, PA-23, PA-23-160, PA-23-235, PA-23-250, PA-28-150, PA-28-151, PA-28-160, PA-28-161, PA-28-180, PA-28-140, PA-28-150, PA-28-151, PA-28-160, PA-28-181, PA-28-200, PA-28-235, PA-28-2160, PA-28-151, PA-28-160, PA-28-181, PA-28-200, PA-28-28-236, PA-30, PA-39, PA-40, PA-31P, PA-31T, PA-31T2, PA-31T3, PA-31P-350, PA-32-260, PA-32-300, PA-32R-300, PA-32R-301, PA-32-301, PA-32-301, PA-32-301, PA-32-301, PA-32-301, PA-32-301, PA-34-200, PA-34-200T, PA-42, PA-42-720, PA-42-1000, PA-42-720R, PA-44-180, PA-44-180T, PA-46-310P, PA-46-350P, PA-46-500TP. OMF-100-160. | | 260, MT-7-260, M-7-260C, M-7-420AC, MX-7-160C, MX-7-180AC, M-7- |
| Heavy Industries, Ltd (29) Mooney M20, M20A, M20B, M20C, M20D, M20E, M20F, M20G, M20J, M20K, M20L, M20M, M20R, M20S, M22. (30) Moravan a.s Z-242L, Z-143L. (31) Navion Aircraft D, Navion E, Navion F, Navion G, Navion H. (32) New Piper Aircraft, Inc (32) New Piper Aircraft, Inc (35) Mary Pa-18, Pa-19, Pa-18, Pa-19, Pa-18, Pa-20, Pa-20, Pa-20, Pa-22, Pa-22-108, Pa-22, Pa-22-135, Pa-225-135, Pa-2250, Pa-22, Pa-22-160, Pa-22-150, Pa-228-160, Pa-23-235, Pa-23-250, Pa-28-250, Pa-24, Pa-24-250, Pa-24-260, Pa-24-400, Pa-28-140, Pa-28-201, Pa-28R-201T, Pa-28R-201T, Pa-28RT-201T, Pa-28RT-201T, Pa-28R-201T, Pa-28R-201T, Pa-31T1, Pa-31T2, Pa-31T3, Pa-31P-350, Pa-32-301T, Pa-32R-301 (SP), Pa-34-200T, Pa-34-201T, Pa-34-200T, Pa-34-201T, Pa-32-301T, Pa-32-301T, Pa-34-200T, Pa-34-200T, Pa-34-200T, Pa-34-200T, Pa-44-180T, Pa-46-310P, Pa-46-350P, Pa-46-500TP. | | 420A, MT-7-420. |
| Ltd (29) Mooney Airplane Company, Inc (30) Moravan a.s Z-242L, Z-143L. (31) Navion Aircraft Company, Ltd (32) New Piper Aircraft, Inc PA-12, PA-18, PA-18, PA-18, PA-18 "105" (Special), PA-18S "105" (Special), PA-18A "150," PA-18A "155," PA-18A "155," PA-18A "155," PA-18A "150," PA-20S "115," PA-20 "115," PA-20 "115," PA-20 "135," PA-22, PA-22-160, PA-22-160, PA-23-235, PA-23-250, PA-28-250, PA-28-150, PA-28-151, PA-28-160, PA-28-161, PA-28-160, PA-28-28-235, PA-28-236, PA-38, PA-39, PA-40, PA-28RT-201T, PA-28-201T, PA-32-201T, PA-32 | (28) Mitsubishi | MU-2B-25, MU-2B-35, MU-2B-26, MU-2B-36, MU-2B-26A, MU-2B- |
| (29) Mooney Airplane M20, M20A, M20B, M20C, M20D, M20E, M20F, M20G, M20J, M20K, M20L, M20M, M20R, M20S, M22. (30) Moravan a.s Z-242L, Z-143L. (31) Navion Aircraft D, Navion (L-17A), Navion (L17B), Navion (L-17C), Navion B, Navion D, Navion E, Navion F, Navion G, Navion H. (32) New Piper Aircraft, Inc (Special), PA-12S, PA-18, PA-18S, PA-18 "105" (Special), PA-18S "125," PA-18 "135" (Army L-21A), PA-18S "125," PA-18S "135," PA-18 "150," PA-18A "150," PA-20S "115," PA-20 "135," PA-20S "135," PA-22, PA-22-108, PA-22-135, PA-22-150, PA-22S-150, PA-22S-150, PA-22S-150, PA-22S-150, PA-22S-160, PA-23, PA-23-250, PA-24, PA-24-250, PA-24-260, PA-24-400, PA-28-140, PA-28-150, PA-28-151, PA-28-160, PA-28-161, PA-28-180, PA-28-235, PA-28S-160, PA-28R-201T, PA-31T3, PA-31T3, PA-31P-350, PA-32-300, PA-32R-300, PA-32R-300, PA-32R-301, PA-32-301, PA-32-301, PA-32R-301, PA-32R-301, PA-32R-301, PA-32R-301, PA-32R-301, PA-32R-301, PA-32R-301, PA-32R-301, PA-34-200T, PA-34-220T, PA-42, PA-42-720, PA-42-1000, PA-42-720R, PA-44-180, PA-44-180T, PA-46-310P, PA-46-350P, PA-46-500TP. (33) Ostmecklenburgis | Heavy Industries, | 36A, MU-2B-40, MU-2B-60, MU-2B, MU-2B-20, MU-2B-15. |
| Airplane Company, Inc (30) Moravan a.s (31) Navion Aircraft Company, Ltd (32) New Piper Aircraft, Inc PA-12, PA-12S, PA-18, PA-18S, PA-18 "105" (Special), PA-18S "105" (Special), PA-18A "135" (Army L-21A), PA-18S "150," PA-18 "135," PA-18 "150," PA-18A "150," PA-20S "135," PA-20, PA-20, PA-20, PA-20, PA-21, PA-23, PA-23-160, PA-23-235, PA-23-250, PA-22-160, PA-22-160, PA-23, PA-23-160, PA-24-200, PA-23-25, PA-23-250, PA-28-160, PA-28-160, PA-24-260, PA-24-400, PA-28-140, PA-28-150, PA-28-151, PA-28-160, PA-28-161, PA-28-180, PA-28-235, PA-28-236, PA-30, PA-39, PA-40, PA-31F, PA-31T, PA-31T1, PA-31T2, PA-31T3, PA-31P-350, PA-32R-301, PA-34-220T, PA-42, PA-42-720, PA-42-720R, PA-44-180, PA-44-180T, PA-46-310P, PA-46-350P, PA-46-500TP. OMF-100-160. | Ltd | |
| Airplane Company, Inc (30) Moravan a.s (31) Navion Aircraft Company, Ltd (32) New Piper Aircraft, Inc PA-12, PA-12S, PA-18, PA-18S, PA-18 "105" (Special), PA-18S "105" (Special), PA-18A "135" (Army L-21A), PA-18S "150," PA-18 "135," PA-18 "150," PA-18A "150," PA-20S "135," PA-20, PA-20, PA-20, PA-20 "115," PA-20S "115," PA-20 "135," PA-20S "135," PA-22-160, PA-22-135, PA-22-150, PA-22S-150, PA-22S-150, PA-22-160, PA-23, PA-23-160, PA-23-235, PA-23-250, PA-E23-250, PA-24, PA-24-250, PA-24-260, PA-24-400, PA-28-140, PA-28-150, PA-28-151, PA-28R-160, PA-28-161, PA-28-180, PA-28-235, PA-28S-160, PA-28R-201T, PA-31T3, PA-31T2, PA-31T3, PA-31P-350, PA-32-300, PA-32R-300, PA-32R-300, PA-32R-301, PA-32-301, PA-32-301, PA-32R-301, PA-32R-301, PA-32R-301, PA-32R-301, PA-32R-301, PA-32R-301, PA-32R-301, PA-32R-301, PA-32R-301, PA-34-200T, PA-34-200T, PA-44-180T, PA-46-310P, PA-46-350P, PA-46-500TP. OMF-100-160. Ostmecklenburgis | (29) Mooney | M20, M20A, M20B, M20C, M20D, M20E, M20F, M20G, M20J, M20K, M20L, |
| (30) Moravan a.s. Z-242L, Z-143L. (31) Navion Aircraft Company, Ltd (32) New Piper Aircraft, Inc PA-12, PA-12S, PA-18, PA-18S, PA-18 "105" (Special), PA-18S "105" (Special), PA-18A "135" (Army L-21A), PA-18S "125," PA-18S "135," PA-18 "135" (Army L-21B), PA-18A "135," PA-18 "135," PA-18 "150," PA-18A "150," PA-18A "150," PA-18A "150," PA-18A "150," PA-19 (Army L-18B), PA-19S, PA-20, PA-20S, PA-20 "115," PA-20S "115," PA-20 "135," PA-20S "135," PA-22-160, PA-22-135, PA-22-135, PA-22-150, PA-22S-150, PA-22-160, PA-23-250, PA-24-260, PA-24-400, PA-28-140, PA-28-150, PA-28-151, PA-28-160, PA-28-161, PA-28-180, PA-28-235, PA-28-236, PA-28R-201T, PA-28RT-201T, PA-28RT-201T, PA-28-201T, PA-28-236, PA-30, PA-39, PA-40, PA-31P, PA-31T1, PA-31T1, PA-31T2, PA-31T3, PA-31P-350, PA-32-300, PA-32-300, PA-32R-300, PA-32R-301, PA-32-301, PA-32-301, PA-32-301, PA-32-301, PA-32-301, PA-34-200T, PA-34-220T, PA-42-720, PA-42-720, PA-42-720R, PA-44-180T, PA-46-310P, PA-46-350P, PA-46-500TP. (33) Ostmecklenburgis | Airplane | M20M, M20R, M20S, M22. |
| NAVION, Navion (L-17A), Navion (L17B), Navion (L-17C), Navion B, Navion D, Navion E, Navion F, Navion G, Navion H. Navion E, Navion F, Navion G, Navion H. PA-12, PA-12S, PA-18, PA-18S, PA-18 "105" (Special), PA-18S "105" (Special), PA-18A "125," PA-18A "125," PA-18A "125," PA-18A "135," PA-18A "150," PA-20S "135," PA-20S "135," PA-20S "135," PA-20S "135," PA-22, PA-22, PA-22-108, PA-22, PA-22-135, PA-22S-135, PA-22S-150, PA-22S-150, PA-22, PA-22-160, PA-22S-160, PA-23, PA-23-160, PA-23-235, PA-23-250, PA-28-150, PA-28-151, PA-28-160, PA-28-161, PA-28-180, PA-28-140, PA-28-150, PA-28-150, PA-28-180, PA-28-181, PA-28-180, PA-28-235, PA-28S-160, PA-28R-201T, PA-28R-201T, PA-28R-201T, PA-28R-201T, PA-28R-201T, PA-28R-201T, PA-28R-201T, PA-28R-201T, PA-28-236, PA-30, PA-39, PA-40, PA-31P, PA-31T1, PA-31T2, PA-31T3, PA-31P3, PA-31P-350, PA-32-260, PA-32-300, PA-32R-300, PA-32R-300, PA-32R-301, PA-34-200T, PA-34-200T, PA-42, PA-42-720, PA-42-720, PA-42-720R, PA-44-180, PA-44-180T, PA-46-310P, PA-46-350P, PA-46-500TP. | Company, Inc | |
| Aircraft Company, Ltd (32) New Piper Aircraft, Inc PA-12, PA-12S, PA-18, PA-18S, PA-18 "105" (Special), PA-18S "105" (Special), PA-18A "125," PA-18 "125" (Army L-21A), PA-18S "125," PA-18A "125," PA-18 "135," PA-18 "150," PA-18A "150," PA-20S "115," PA-20 "135," PA-20S "135," PA-20, PA-20, PA-20, PA-20, PA-20, PA-20, PA-22-135, PA-22-135, PA-22-150, PA-22S-150, PA-22-160, PA-22S-150, PA-22S-150, PA-22-160, PA-22S-160, PA-23, PA-23-160, PA-23-235, PA-23-250, PA-E23-250, PA-28-151, PA-28-160, PA-28-161, PA-28-180, PA-28-140, PA-28-150, PA-28-151, PA-28-160, PA-28-181, PA-28-200, PA-28-235, PA-28S-160, PA-28R-180, PA-28-181, PA-28-200, PA-28-235, PA-28S-160, PA-30, PA-38R-201, PA-28R-201, PA-28RT-2017, PA-28RT-2017, PA-28-2017, PA-28-236, PA-30, PA-39, PA-40, PA-31P, PA-31T, PA-31T1, PA-31T2, PA-31T3, PA-31P-350, PA-32-260, PA-32-300, PA-32S-300, PA-32R-300, PA-32RT-300, PA-32RT-3007, PA-32R-301 (SP), PA-32R-301 (HP), PA-32R-3017, PA-32-3017, PA-32-3017, PA-34-2007, PA-34-2007, PA-34-2207, PA-42, PA-42-720, PA-42-1000, PA-42-720R, PA-44-180, PA-44-1807, PA-46-310P, PA-46-350P, PA-46-500TP. (33) OMF-100-160. | (30) Moravan a.s | Z-242L, Z-143L. |
| Aircraft Company, Ltd (32) New Piper Aircraft, Inc PA-12, PA-12S, PA-18, PA-18S, PA-18 "105" (Special), PA-18S "105" (Special), PA-18A "125," PA-18 "125" (Army L-21A), PA-18S "125," PA-18A "125," PA-18 "135," PA-18 "150," PA-18A "150," PA-20S "115," PA-20 "135," PA-20S "135," PA-20, PA-20, PA-20, PA-20, PA-20, PA-20, PA-22-135, PA-22-135, PA-22-150, PA-22S-150, PA-22-160, PA-22S-150, PA-22S-150, PA-22-160, PA-22S-160, PA-23, PA-23-160, PA-23-235, PA-23-250, PA-E23-250, PA-28-151, PA-28-160, PA-28-161, PA-28-180, PA-28-140, PA-28-150, PA-28-151, PA-28-160, PA-28-181, PA-28-200, PA-28-235, PA-28S-160, PA-28R-180, PA-28-181, PA-28-200, PA-28-235, PA-28S-160, PA-30, PA-38R-201, PA-28R-201, PA-28RT-2017, PA-28RT-2017, PA-28-2017, PA-28-236, PA-30, PA-39, PA-40, PA-31P, PA-31T, PA-31T1, PA-31T2, PA-31T3, PA-31P-350, PA-32-260, PA-32-300, PA-32S-300, PA-32R-300, PA-32RT-300, PA-32RT-3007, PA-32R-301 (SP), PA-32R-301 (HP), PA-32R-3017, PA-32-3017, PA-32-3017, PA-34-2007, PA-34-2007, PA-34-2207, PA-42, PA-42-720, PA-42-1000, PA-42-720R, PA-44-180, PA-44-1807, PA-46-310P, PA-46-350P, PA-46-500TP. (33) OMF-100-160. | (31) Navion | NAVION, Navion (L-17A), Navion (L17B), Navion (L-17C), Navion B, Navion |
| (32) New Piper Aircraft, Inc PA-12, PA-12S, 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-18AS "125," PA-18AS "125," PA-18 "135" (Army L-21B), PA-18A "135," PA-18S "135," PA-18 "150," PA-18AS "150," PA-18AS "150," PA-19 (Army L-18B), PA-19S, PA-20, PA-20S, PA-20 "115," PA-20S "115," PA-20 "135," PA-20S "135," PA-22, PA-22-108, PA-22-135, PA-22S-135, PA-22-150, PA-22S-150, PA-22S-160, PA-22S-160, PA-23, PA-23-160, PA-23-235, PA-23-250, PA-E23-250, PA-24, PA-24-250, PA-24-260, PA-24-400, PA-28-140, PA-28-150, PA-28-151, PA-28-160, PA-28-161, PA-28-180, PA-28-235, PA-28S-160, PA-28R-201T, PA-28RT-201T, PA-28RT-201T, PA-28R-201T, PA-28R-201T, PA-28R-201T, PA-28R-201T, PA-28R-201T, PA-31T3, PA-31P-350, PA-32, PA-31P, PA-31T, PA-31T1, PA-31T2, PA-31T3, PA-31P-350, PA-32R-300T, PA-32R-300, PA-32R-300, PA-32R-300, PA-32R-301T, PA-32-301T, PA-32-301T, PA-32-301T, PA-34-200T, PA-34-220T, PA-42, PA-42-720, PA-42-1000, PA-42-720R, PA-44-180T, PA-46-310P, PA-46-350P, PA-46-500TP. (33) Ostmecklenburgis | Aircraft | D, Navion E, Navion F, Navion G, Navion H. |
| (32) New Piper Aircraft, Inc PA-12, PA-12S, 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-18AS "125," PA-18AS "125," PA-18 "135" (Army L-21B), PA-18A "135," PA-18S "150," PA-18S "150," PA-18S "150," PA-19S "150," PA-19S, PA-20, PA-20S, PA-20 "115," PA-20S "115," PA-20 "135," PA-20S "135," PA-22, PA-22-108, PA-22-135, PA-22S-135, PA-22-150, PA-22S-150, PA-22S-160, PA-22S-160, PA-23, PA-23-160, PA-23-235, PA-23-250, PA-E23-250, PA-24, PA-24-250, PA-24-260, PA-24-400, PA-28-140, PA-28-150, PA-28-151, PA-28-160, PA-28-161, PA-28-180, PA-28-235, PA-28S-160, PA-28R-201T, PA-28R-201T, PA-28R-201T, PA-28R-201T, PA-28R-201T, PA-28R-201T, PA-28R-201T, PA-28R-201T, PA-31T3, PA-31P-350, PA-39, PA-40, PA-31P, PA-31T, PA-31T1, PA-31T2, PA-31T3, PA-31P-350, PA-32R-300T, PA-32R-300, PA-32R-300, PA-32R-300, PA-32R-301T, PA-32-301T, PA-32-301T, PA-34-200T, PA-34-220T, PA-42, PA-42-720, PA-42-1000, PA-42-720R, PA-44-180, PA-44-180T, PA-46-310P, PA-46-350P, PA-46-500TP. (33) OMF-100-160. | Company, Ltd | |
| Aircraft, Inc (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–18 "150," PA–18A "150," PA–18S "150," PA–18S "150," PA–19 (Army L–18B), PA–19S, PA–20, PA–20S, PA–20 "115," PA–20S "115," PA–20 "135," PA–20S "135," PA–22, PA–22–108, PA–22–135, PA–22S–135, PA–22–150, PA–22S–150, PA–22–160, PA–22S–160, PA–23, PA–23–160, PA–23–235, PA–23–250, PA–24–250, PA–24–260, PA–24–400, PA–28–140, PA–28–150, PA–28–151, PA–28–160, PA–28–161, PA–28–180, PA–28–235, PA–28S–160, PA–28R–180, PA–28–181, PA–28R–200, PA–28R–201T, PA–28R–201T, PA–28RT–201T, PA–28RT–201T, PA–28R–201T, PA–28-236, PA–30, PA–39, PA–40, PA–31P, PA–31T, PA–31T1, PA–31T2, PA–31T3, PA–31P–350, PA–32–260, PA–32–300, PA–32S–300, PA–32R–300, PA–32RT–300, PA–32RT–300T, PA–32R–301 (SP), PA–32R–301 (HP), PA–32R–301T, PA–32R–301T, PA–32–301, PA–32–301T, PA–34–200T, PA–44–180T, PA–44–180T, PA–46–310P, PA–46–350P, PA–46–500TP. | | PA-12, PA-12S, PA-18, PA-18S, PA-18 "105" (Special), PA-18S "105" |
| "125," PA-18 "135" (Army L-21B), PA-18A "135," PA-18S "135," PA-18 "150," PA-18A "150," PA-18S "150," PA-18A "150," PA-18S "150," PA-19 (Army L-18B), PA-19S, PA-20, PA-20S, PA-20 "115," PA-20S "115," PA-20 "135," PA-20S "135," PA-22, PA-22-108, PA-22-135, PA-22S-135, PA-22-150, PA-22S-150, PA-22-160, PA-22S-160, PA-23, PA-23-160, PA-23-235, PA-23-250, PA-E23-250, PA-24, PA-24-250, PA-24-260, PA-24-400, PA-28-140, PA-28-150, PA-28-151, PA-28-160, PA-28-161, PA-28-180, PA-28-235, PA-28S-160, PA-28R-180, PA-28S-180, PA-28-281, PA-28R-201, PA-28R-201T, PA-28R-201T, PA-28R-201T, PA-28R-201T, PA-28R-201T, PA-28R-201T, PA-31T3, PA-30, PA-39, PA-40, PA-31P, PA-31T, PA-31T1, PA-31T2, PA-31T3, PA-31P-350, PA-32-260, PA-32-300, PA-32S-300, PA-32R-300, PA-32RT-300, PA-32RT-300T, PA-32R-301 (SP), PA-32R-301 (HP), PA-32R-301T, PA-32-301T, PA-32-301T, PA-34-200T, PA-34-220T, PA-42, PA-42-720, PA-42-1000, PA-42-720R, PA-44-180T, PA-46-310P, PA-46-350P, PA-46-500TP. | ` ' | |
| "150," PA–18A "150," PA–18S "150," PA–18AS "150," PA–19 (Army L– 18B), PA–19S, PA–20, PA–20S, PA–20 "115," PA–20S "115," PA–20 "135," PA–20S "135," PA–22, PA–22–108, PA–22–135, PA–22S–135, PA–22–150, PA–22S–150, PA–22–160, PA–22S–160, PA–23, PA–23–160, PA–23–235, PA– 23–250, PA–E23–250, PA–24, PA–24–250, PA–24–260, PA–24–400, PA–28– 140, PA–28–150, PA–28–151, PA–28–160, PA–28–161, PA–28–180, PA–28– 235, PA–28S–160, PA–28R–180, PA–28S–180, PA–28–181, PA–28R–200, PA– 28R–201, PA–28R–201T, PA–28RT–201, PA–28RT–201T, PA–28–201T, PA– 28–236, PA–30, PA–39, PA–40, PA–31P, PA–31T, PA–31T1, PA–31T2, PA– 31T3, PA–31P–350, PA–32–260, PA–32–300, PA–32S–300, PA–32R–300, PA–32RT–300, PA–32RT–301T, PA–32R–301T, PA–32R–301T, PA–32R–301T, PA–34–220T, PA–42, PA–42–720, PA–42–1000, PA–42–720R, PA–44–180, PA–44–180T, PA–46–310P, PA–46–350P, PA–46–500TP. | | · · · · · · · · · · · · · · · · · · · |
| 18B), PA-19S, PA-20, PA-20S, PA-20 "115," PA-20S "115," PA-20 "135," PA-20S "135," PA-20S "135," PA-22, PA-22-108, PA-22-135, PA-22S-135, PA-22-150, PA-22S-150, PA-22S-150, PA-22S-160, PA-23-236, PA-23-235, PA-23-250, PA-E23-250, PA-24, PA-24-250, PA-24-260, PA-24-400, PA-28-140, PA-28-150, PA-28-151, PA-28-160, PA-28-161, PA-28-180, PA-28-235, PA-28S-160, PA-28R-180, PA-28S-180, PA-28-181, PA-28R-200, PA-28R-201, PA-28R-201T, PA-28RT-201T, PA-28RT-201T, PA-28-201T, PA-28-236, PA-30, PA-39, PA-40, PA-31P, PA-31T, PA-31T1, PA-31T2, PA-31T3, PA-31P-350, PA-32-260, PA-32-300, PA-32S-300, PA-32R-300, PA-32RT-300, PA-32RT-300T, PA-32R-301 (SP), PA-32R-301 (HP), PA-32R-301T, PA-32-301T, PA-34-200T, PA-34-220T, PA-42, PA-42-720, PA-42-1000, PA-42-720R, PA-44-180, PA-44-180T, PA-46-310P, PA-46-350P, PA-46-500TP. | | |
| PA-20S "135," PA-22, PA-22-108, PA-22-135, PA-22S-135, PA-22-150, PA-22S-150, PA-22S-160, PA-22S-160, PA-23, PA-23-160, PA-23-235, PA-23-250, PA-E23-250, PA-24, PA-24-250, PA-24-260, PA-24-400, PA-28-140, PA-28-150, PA-28-151, PA-28-160, PA-28-161, PA-28-180, PA-28-235, PA-28S-160, PA-28R-180, PA-28S-180, PA-28-181, PA-28R-200, PA-28R-201, PA-28R-201T, PA-28RT-201, PA-28RT-201T, PA-28R-201T, PA-28-236, PA-30, PA-39, PA-40, PA-31P, PA-31T, PA-31T1, PA-31T2, PA-31T3, PA-31P-350, PA-32-260, PA-32-300, PA-32S-300, PA-32R-300, PA-32RT-300, PA-32RT-300T, PA-32R-301 (SP), PA-32R-301 (HP), PA-32R-301T, PA-32-301T, PA-32-301T, PA-34-200T, PA-42, PA-42-720, PA-42-1000, PA-42-720R, PA-44-180, PA-44-180T, PA-46-310P, PA-46-350P, PA-46-500TP. | | · · · · |
| PA-22S-150, PA-22-160, PA-22S-160, PA-23, PA-23-160, PA-23-235, PA-23-250, PA-E23-250, PA-24, PA-24-250, PA-24-260, PA-24-400, PA-28-140, PA-28-150, PA-28-151, PA-28-160, PA-28-161, PA-28-180, PA-28-235, PA-28S-160, PA-28R-180, PA-28S-180, PA-28-181, PA-28R-200, PA-28R-201, PA-28R-201T, PA-28RT-201, PA-28RT-201T, PA-28RT-201T, PA-28-201T, PA-28-236, PA-30, PA-39, PA-40, PA-31P, PA-31T, PA-31T1, PA-31T2, PA-31T3, PA-31P-350, PA-32-260, PA-32-300, PA-32S-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, PA-34-200T, PA-34-200T, PA-42, PA-42-720, PA-42-1000, PA-42-720R, PA-44-180, PA-44-180T, PA-46-310P, PA-46-350P, PA-46-500TP. | | |
| 23–250, PA–E23–250, PA–24, PA–24–250, PA–24–260, PA–24–400, PA–28–140, PA–28–150, PA–28–151, PA–28–160, PA–28–161, PA–28–180, PA–28–235, PA–28S–160, PA–28R–180, PA–28S–180, PA–28R–200, PA–28R–201, PA–28R–201T, PA–28RT–201, PA–28RT–201T, PA–28-201T, PA–28-201T, PA–28-236, PA–30, PA–39, PA–40, PA–31P, PA–31T, PA–31T1, PA–31T2, PA–31T3, PA–31P–350, PA–32–260, PA–32–300, PA–32S–300, PA–32R–300, PA–32RT–300, PA–32RT–300T, PA–32R–301 (SP), PA–32R–301 (HP), PA–32R–301T, PA–32–301T, PA–34–200T, PA–34–200T, PA–44–200T, PA–44–200T, PA–44–180T, PA–46–310P, PA–46–350P, PA–46–500TP. | | |
| 140, PA-28-150, PA-28-151, PA-28-160, PA-28-161, PA-28-180, PA-28-235, PA-28S-160, PA-28R-180, PA-28S-180, PA-28R-200, PA-28R-201, PA-28R-201T, PA-28RT-201T, PA-28RT-201T, PA-28-201T, PA-28-236, PA-30, PA-39, PA-40, PA-31P, PA-31T, PA-31T1, PA-31T2, PA-31T3, PA-31P-350, PA-32-260, PA-32-300, PA-32S-300, PA-32R-300, PA-32RT-300, PA-32RT-300T, PA-32R-301 (SP), PA-32R-301 (HP), PA-32R-301T, PA-32-301T, PA-34-200T, PA-34-200T, PA-34-220T, PA-42, PA-42-720, PA-42-1000, PA-42-720R, PA-44-180, PA-44-180T, PA-46-310P, PA-46-350P, PA-46-500TP. (33) OMF-100-160. | | |
| 235, PA-28S-160, PA-28R-180, PA-28S-180, PA-28-181, PA-28R-200, PA-28R-201, PA-28R-201T, PA-28RT-201, PA-28RT-201T, PA-28-201T, PA-28-201T, PA-28-236, PA-30, PA-39, PA-40, PA-31P, PA-31T, PA-31T1, PA-31T2, PA-31T3, PA-31P-350, PA-32-260, PA-32-300, PA-32S-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, PA-34-200T, PA-34-200T, PA-42, PA-42-720, PA-42-1000, PA-42-720R, PA-44-180, PA-44-180T, PA-46-310P, PA-46-350P, PA-46-500TP. (33) OMF-100-160. | | |
| 28R-201, PA-28R-201T, PA-28RT-201, PA-28RT-201T, PA-28-201T, PA-28-236, PA-30, PA-39, PA-40, PA-31P, PA-31T, PA-31T1, PA-31T2, PA-31T3, PA-31P-350, PA-32-260, PA-32-300, PA-32S-300, PA-32R-300, PA-32RT-300, PA-32RT-300T, PA-32R-301 (SP), PA-32R-301 (HP), PA-32R-301T, PA-32-301T, PA-32-301T, PA-34-200T, PA-34-200T, PA-34-220T, PA-42, PA-42-720, PA-42-1000, PA-42-720R, PA-44-180, PA-44-180T, PA-46-310P, PA-46-350P, PA-46-500TP. (33) OMF-100-160. | | |
| 28–236, PA–30, PA–39, PA–40, PA–31P, PA–31T, PA–31T1, PA–31T2, PA–31T3, PA–31P–350, PA–32–260, PA–32–300, PA–32S–300, PA–32R–300, PA–32RT–300, PA–32RT–300T, PA–32R–301 (SP), PA–32R–301 (HP), PA–32R–301T, PA–32–301T, PA–34–200T, PA–34–200T, PA–34–220T, PA–42, PA–42–720, PA–42–1000, PA–42–720R, PA–44–180T, PA–46–310P, PA–46–350P, PA–46–500TP. (33) OMF–100–160. | | |
| 31T3, PA-31P-350, PA-32-260, PA-32-300, PA-32S-300, PA-32R-300, PA-32RT-300, PA-32RT-300T, PA-32R-301 (SP), PA-32R-301 (HP), PA-32R-301T, PA-32-301T, PA-34-200T, PA-34-200T, PA-34-220T, PA-42, PA-42-720, PA-42-1000, PA-42-720R, PA-44-180, PA-44-180T, PA-46-310P, PA-46-350P, PA-46-500TP. (33) OMF-100-160. | | |
| 32RT-300, PA-32RT-300T, PA-32R-301 (SP), PA-32R-301 (HP), PA-32R-301T, PA-32-301T, PA-32-301T, PA-34-200T, PA-34-200T, PA-34-220T, PA-42, PA-42-720, PA-42-1000, PA-42-720R, PA-44-180, PA-44-180T, PA-46-310P, PA-46-350P, PA-46-500TP. (33) OMF-100-160. | | |
| 301T, PA-32-301, PA-32-301T, PA-34-200, PA-34-200T, PA-34-220T, PA-42, PA-42-720, PA-42-1000, PA-42-720R, PA-44-180, PA-44-180T, PA-46-310P, PA-46-350P, PA-46-500TP. (33) OMF-100-160. Ostmecklenburgis | | |
| 42, PA-42-720, PA-42-1000, PA-42-720R, PA-44-180, PA-44-180T, PA-46-310P, PA-46-350P, PA-46-500TP. (33) OMF-100-160. Ostmecklenburgis | | |
| 46–310P, PA–46–350P, PA–46–500TP. (33) OMF–100–160. Ostmecklenburgis | | |
| (33) OMF–100–160. Ostmecklenburgis | | |
| Östmecklenburgis | (33) | |
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| | • | |
| GmgH | 0 0 | |

| (34) Piaggio Aero | P-180. | | |
|-------------------|--|--|--|
| Industries S.p.A | | | |
| (35) Pilatus | PILATUS PC-12, PILATUS PC-12/45, PC-6, PC-6-H1, PC-6-H2, PC-6/350, | | |
| Aircraft Ltd | PC-6/350-H1, PC-6/350-H2, PC-6/A, PC-6/A-H1, PA-6/A-H2, PC-6/B-F | | |
| | PC-6/B1-H2, PC-6/B2-H2, PC-6/B2-H4, PC-6/C-H2, PC-6/C1-H2, PC-7. | | |
| (36) Prop-Jets, | 200, 200A, 200B, 200C, 200D, 400. | | |
| Inc | | | |
| (37) Panstwowe | PZL-104 WILGA 80, PZL-104M WILGA 2000, PZL-WARSZAWA, PZL- | | |
| Zakladv Lotnicze | KOLIBER 150A, PZL–KOLIBER 160A. | | |
| (PZL) | | | |
| (38) PZL | PZL M20 03, PZL M26 01. | | |
| WSK/Mielec | | | |
| Obrsk | | | |
| (39) Raytheon | 35–33, 35–A33, 35–B33, 35–C33, 35–C33A, E33, E33A, E33C, F33, F33A, | | |
| • | F33C, G33, H35, J35, K35, M35, N35, P35, S35, V35, V35A, V35B, 36, A36, | | |
| | A36TC, B36TC, 35, A35, B35, C35, D35, E35, F35, G35, 35R, F90, 76, 200, | | |
| | 200C, 200CT, 200T, A200, B200, B200C, B200CT, B200T, 300, 300LW, B300, | | |
| | B300C, 1900, 1900C, 1900D, A100–1 (U–21J), A200 (C–12A), A200 (C–12C), | | |
| | A200C (UC-12B), A200CT (C-12D), A200CT (FWC-12D), A200CT (RC- | | |
| | 12D), A200CT (C-12F), A200CT (RC-12G), A200CT (RC-12H), A200CT | | |
| | (RC-12K), A200CT (RC-12P), A200CT (RC-12Q), B200C (C-12F), B200C | | |
| | (UC-12F), B200C (UC-12M), B200C (C-12R), 1900C (C-12J), 65, A65, A65– | | |
| | 8200, 65–80, 65–A80, 65–A80–8800, 65–B80, 65–88, 65–A90, 70, B90, C90, | | |
| | C90A, E90, H90, 65–A90–1, 65–A90–2, 65–A90–3, 65–A90–4, 95, B95, B95A, | | |
| | D95A, E95, 95–55, 95–A55, 95–B55, 95–B55A, 95–B55B (T–42A), 95–C55, | | |
| | 95–C55A, D55, D55A, E55, E55A, 56TC, A56TC, 58, 58A, 58P, 58PA, 58TC, | | |
| | 58TCA, 99, 99A, 99A (FACH), A99, A99A, B99, C99, 100, A100 (U–21F), | | |
| | A100A, A100C, B100, 2000, 3000, 390, 19A, B19, M19A, 23, A23, A23A, | | |
| | A23–19, A23–24, B23, C23, A24, A24R, B24R, C24R, 60, A60, B60, 18D, | | |
| | A18A, A18D, S18D, SA18A, SA18D, 3N, 3NM, 3TM, JRB–6, D18C, D18S, | | |
| | E18S, RC–45J (SNB–5P), E18S–9700, G18S, H18, C–45G, TC–45G, C–45H, | | |
| | TC-45H, TC-45J, UC-45J (SNB-5), 50 (L-23A), B50 (L-23B), C50, D50 (L- | | |
| | 23E), D50A, D50B, D50C, D50E–5990, E50 (L–23D, RL–23D), F50, G50, H50, | | |
| | J50, 45 (YT–34), A45 (T–34A or B–45), D45 (T–34B). | | |
| (40) Rockwell | BC-1A, AT-6 (SNJ-2), AT-6A (SNJ-3), AT-6B, AT-6C (SNJ-4), AT-6D | | |
| International | (SNJ-5), AT-6F (SNF-6), SNJ-7, T-6G, NOMAD NA-260. | | |
| Corporation | (51,6 3), 711 01 (51,1 0), 51,6 7, 1 00, 1,01,111 200. | | |
| (41) Short | SC-7 Series 2, SC-7 Series 3. | | |
| Brothers & | Se 7 Belies 2, Se 7 Belies 3. | | |
| Harland Ltd | | | |
| (42) Slingsby | T67M260, T67M260–T3A. | | |
| Aviation Ltd | 10/11/200, 10/11/200 13/1. | | |
| (43) SOCATA— | TB9, TB10, TB20, TB21, TB200, TBM 700, M.S. 760, M.S. 760 A, M.S. 760 B, | | |
| Group | Rallye 100S, Rallye 150ST, Rallye 150T, Rallye 235E, Rallye 235C, MS 880B, | | |
| Aerospatiale | MS 885, MS 894A, MS 893A, MS 892A–150, MS 892E–150, MS 893E, MS | | |
| 1 10100 patient | 894E, GA-7. | | |
| (44) Tiger | AA-1, AA-1A, AA-1B, AA-1C, AA-5, AA-5A, AA-5B, AG-5B. | | |
| Aircraft LLC | 111 1, 111 111, 111 1D, 111 1C, 111 3, 111-311, 111-3D, 110-3D. | | |
| 1 III CIUIT LLC | | | |

| (45) Twin | 500, 500-A, 500-B, 500-U, 500-S, 520, 560, 560-A, 560-E, 560F, 680, 680E, | |
|------------------|---|--|
| Commander | 680F, 680FL, 680FL(P), 680T, 680V, 680W, 681, 685, 690, 690A, 690B, 690C, | |
| Aircraft | 690D, 695, 695A, 695B, 720, 700. | |
| Corporation | | |
| (46) Univair | 108, 108–1, 108–2, 108–3, 108–5. | |
| Aircraft | | |
| Corporation | | |
| (47) Vulcanair | P68, P68B, P68C, P68C–TC, P68 "Observer," P68 "Observer 2," P68TC | |
| S.p.A | "Observer," AP68TP300 "Spartacus," AP68TP 600 "Viator". | |
| (48) Zenair Ltd. | CH2000. | |

What Is the Unsafe Condition Presented in This AD?

(d) This AD is the result of observations that the GTX 33/33D/330/330D may detect, from other airplanes, the S1 (suppression) interrogating pulse below the minimum trigger level (MTL) and, in some circumstances, not reply. The GTX 33/33D/330/330D should still reply even if it detects S1 interrogating pulses below the MTL. The actions specified in this AD are intended to prevent interrogating aircraft from possibly receiving inaccurate replies, due to suppression, from aircraft equipped with the GTX 33/33D/330/330D Mode S transponders when the pulses are below the minimum trigger level (MTL). Software Upgrade Versions 3.03 and 3.06 correct a TAS, TCAD, and TCAS I system "whisper-shout" problem that could potentially lead to the aircraft not being visible at certain ranges. TCAS II systems are not affected. The inaccurate replies could result in reduced vertical separation.

What Must I Do To Address This Problem?

(e) To address this problem, you must do the following:

| Actions | Compliance | Procedures |
|--|------------------------|----------------------------------|
| Install GTX 33/33D/330/330D Software | Install the software | Follow GARMIN Mandatory |
| Upgrade for transponders with software | upgrade within 180 | Software Service Bulletin No.: |
| version 3.00, 3.01, 3.02, 3.04, 3.05 to at | daysafter February | 0304, Rev B, dated June 12, 2003 |
| least version 3.06. If version 3.03 is | 23, 2005 (the | accomplished. (Software Upgrade |
| already installed, no further action is | effective date of this | 3.03) or GARMIN Mandatory |
| required. This version is no longer | AD), unless already | Software Service Bulletin No.: |
| available from Garmin. This AD does not | accomplished. | 0409, dated July 19, 2004 |
| apply to software versions past 3.05. | | (Software Upgrade 3.06). |

May I Request an Alternative Method of Compliance?

(f) You may request a different method of compliance or a different compliance time for this AD by following the procedures in 14 CFR 39.19. Unless FAA authorizes otherwise, send your request to your principal inspector. The principal inspector may add comments and will send your request to the Manager, Wichita Aircraft Certification Office (ACO), FAA. For information on any already approved alternative methods of compliance, contact Roger A. Souter, FAA, Wichita Aircraft Certification Office (ACO), 1801 Airport Road, Room 100, Wichita, Kansas 67209; telephone: 316-946-4134; facsimile: 316-946-4107; email address: roger.souter@faa.gov.

Does This AD Incorporate Any Material by Reference?

(g) You must do the actions required by this AD following the instructions in GARMIN Mandatory Software Service Bulletin No.: 0304, Rev B, dated June 12, 2003 (Software Upgrade 3.03) or GARMIN Mandatory Software Service Bulletin No.: 0409, dated July 19, 2004 (Software Upgrade 3.06). The Director of the Federal Register approved the incorporation by reference of this service bulletin in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. To get a copy of this service information, contact GARMIN International Inc. 1200 East 151st Street, Olathe, KS 66062; telephone: 913-397-8200. To review copies of this service information, go to the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html or call (202) 741-6030. To view the AD docket, go to the Docket Management Facility; U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL-401, Washington, DC 20590-001 or on the Internet at http://dms.dot.gov. The docket number is FAA-2004-18743.

Issued in Kansas City, Missouri, on January 7, 2005. James E. Jackson, Acting Manager, Small Airplane Directorate, Aircraft Certification Service. [FR Doc. 05-832 Filed 1-18-05; 8:45 am] BILLING CODE 4910-13-P