

Avis d'émission d'une Directive de Navigabilité par l'autorité primaire d'un matériel étranger

Les examens ou modifications décrits ou rappelés ci-dessous sont impératifs. La non application des exigences contenues dans la Directive de Navigabilité citée ci-dessous entraîne l'inaptitude au vol de l'aéronef concerné.

(Envoi 03/2005 du 02 février 2005)

Directive de Navigabilité FAA 2005-01-19

GARMIN INTERNATIONAL INC.

Equipements : transpondeurs mode S GTX33, GTX33D, GTX330 & GTX330D

Transpondeurs Mode S

Nota pour les exploitants et organismes d'entretien d'aéronefs inscrits au registre français :

Si l'AD jointe invite à un contact vers l'autorité primaire de l'AD, contacter le bureau concerné de la DGAC/SFACT.

Si pour l'exécution d'une tâche donnée, l'AD jointe se réfère à une qualification de personnel répondant à une réglementation nationale, il est possible de faire intervenir, pour cette tâche, du personnel de qualification équivalente acceptée dans l'Union Européenne.

Si l'AD jointe se réfère à une donnée de navigabilité ou une instruction pour le maintien de la navigabilité (Manuel de Vol, Manuel de Maintenance, ...) qui n'est pas celle approuvée ou pas celle en vigueur en France ou si l'AD jointe présente une difficulté d'application liée à sa spécificité nationale, exposer le problème auprès du département technique du GSAC (par courriel à "contact@gsac.fr" ou par fax au 01 46 90 48 48) ou auprès du bureau concerné de la DGAC/SFACT/N.

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.p.A	S.205-18/F, S.205-18/R, S.205-20/R, S.205-22/R, S208, S.208A, F.260, F.260B, F.260C, F.260D, F.260E, F.260F, S.211A.
(2) Aeronautica Macchi S.p.A	AL 60, AL 60-B, AL 60-F5, AL 60-C5, AM-3.
(3) Aerostar Aircraft Corporation	PA-60-600 (Aerostar 600), PA-60-601 (Aerostar 601), PA-60-601P (Aerostar 601P), PA-60-602P (Aerostar 602P), PA-60-700P (Aerostar 700P), 360, 400.
(4) Alexandria Aircraft, LLC	14-19, 14-19-2, 14-19-3, 14-19-3A, 17-30, 17-31, 17-31TC, 17-30A, 17-31A, 17-31ATC
(5) Alliance Aircraft Group LLC	15A, 20, H-250, H-295 (USAFU-10D), HT-295, H391 (USAFYL-24), H391B, H-395 (USAFU-28A or U-10B), H-395A, H-700, H-800, HST-550, HST-550A (USAF AU-24A), 500.
(6) American Champion Aircraft Corp	402, 7GCA, 7GCB, 7KC, 7GCBA, 7GCAA, 7GCBC, 7KCAB, 8KCAB, 8GCBC.
(7) Sky International Inc	A-1, A-1A, A-1B, S-1S, S-1T, S-2, S-2A, S-2S, S-2C.
(8) B-N Group Ltd	BN-2, BN-2A, BN-2A-2, BN-2A-3, BN-2A-6, BN-2A-8, BN-2A-8, BN-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 Inc	(Otter) DHC-3, DHC-6-1, DHC-6-100, DHC-6-200, DHC-6-300.

(11) Cessna Aircraft Company	170, 170A, 170B, 172, 172A, 172B, 172C, 172D, 172E, 172F (USAF T-41A), 172G, 172H (USAF T041A), 172I, 172K, 172L, 172M, 172N, 172P, 172Q, 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 Design Corporation	SR20, SR22.
(13) Commander Aircraft Company	112, 112TC, 112B, 112TCA, 114, 114A, 114B, 114TC.
(14) de Havilland Inc	DHC-2 Mk. I, DHC-2 Mk. II, DHC-2 Mk. III.
(15) Dynac Aerospace Corporation	(Voltaire) 10, (Voltaire) 10A, (Aero Commander) 100, (Aero Commander) 100A, (Aero Commander) 100-180.
(16) Diamond Aircraft Industries	DA 20-A1, DA20-C1, DA 40.
(17) Empresa Brasileira de Aeronautica S.A. EMBRAER.	EMB-110P1, EMB-110P2.
(18) Extra Flugzeugbau Gmbh	EA300, EA300L, EA300S, EA300/200, EA-400.
(19) Fairchild Aircraft Corporation	SA26-T, SA26-AT, SA226-T, SA226-AT, SA226-T(B), SA227-AT, SA227-TT, SA226-TC, SA227-AC (C-26A), SA227-CC, SA227-DC (C-26B).
(20) Global Amphibians, LLC	Colonial C-1, Colonial C-2, Lake LA-4, Lake LA-4A, Lake LA-4P, Lake LA-4-200, Lake Model 250.
(21) Grob-Werke	G115, G115A, G115B, G115C, G115C2, G115D, G115D2, G115EG, G120A.
(22) Lancair Company	LC40-550FG.
(23) LanShe Aerospace, LLC	MAC-125C, MAC-145, MAC-145A, MAC-145B.
(24) Learjet Inc.	23.
(25) Lockheed Aircraft Corporation	18.
(26) Luscombe Aircraft Corporation	11A, 11E.
(27) Maule Aerospace Technology, Inc	Bee Dee M-4, M-4, M-4C, M-4S, M-4T, M-4180C, M-4180S, M-4180T, 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-5-210C, 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, 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 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.
(29) Mooney Airplane Company, Inc	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 Company, Ltd	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 "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-18 "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-300T, PA-32R-301 (SP), PA-32R-301 (HP), PA-32R-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) Ostmecklenburgische Flugzeugbau GmbH	OMF-100-160.
(34) Piaggio Aero Industries S.p.A	P-180.
(35) Pilatus Aircraft Ltd	PILATUS PC-12, PILATUS PC-12/45, PC-6, PC-6-H1, PC-6-H2, PC-6/350, PC-6/350-H1, PC-6/350-H2, PC-6/A, PC-6/A-H1, PA-6/A-H2, PC-6/B-H2, 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, Inc	200, 200A, 200B, 200C, 200D, 400.
(37) Panstwowe Zaklady Lotnicze (PZL)	PZL-104 WILGA 80, PZL-104M WILGA 2000, PZL-WARSZAWA, PZL-KOLIBER 150A, PZL-KOLIBER 160A.
(38) PZL WSK/Mielec Obrsk	PZL M20 03, PZL M26 01.
(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 International Corporation	BC-1A, AT-6 (SNJ-2), AT-6A (SNJ-3), AT-6B, AT-6C (SNJ-4), AT-6D (SNJ-5), AT-6F (SNF-6), SNJ-7, T-6G, NOMAD NA-260.
(41) Short Brothers & Harland Ltd	SC-7 Series 2, SC-7 Series 3.
(42) Slingsby Aviation Ltd	T67M260, T67M260-T3A.
(43) SOCAT-A- Group Aerospatiale	TB9, TB10, TB20, TB21, TB200, TBM 700, M.S. 760, M.S. 760 A, M.S. 760 B, Rallye 100S, Rallye 150ST, Rallye 150T, Rallye 235E, Rallye 235C, MS 880B, MS 885, MS 894A, MS 893A, MS 892A-150, MS 892E-150, MS 893E, MS 894E, GA-7.
(44) Tiger Aircraft LLC	AA-1, AA-1A, AA-1B, AA-1C, AA-5, AA-5A, AA-5B, AG-5B.
(45) Twin Commander Aircraft Corporation	500, 500-A, 500-B, 500-U, 500-S, 520, 560, 560-A, 560-E, 560F, 680, 680E, 680F, 680FL, 680FL(P), 680T, 680V, 680W, 681, 685, 690, 690A, 690B, 690C, 690D, 695, 695A, 695B, 720, 700.
(46) Univair Aircraft Corporation	108, 108-1, 108-2, 108-3, 108-5.
(47) Vulcanair S.p.A	P68, P68B, P68C, P68C-TC, P68 "Observer," P68 "Observer 2," P68TC "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 Upgrade for transponders with software version 3.00, 3.01, 3.02, 3.04, 3.05 to at least version 3.06. If version 3.03 is already installed, no further action is required. This version is no longer available from Garmin. This AD does not apply to software versions past 3.05.	Install the software upgrade within 180 days after February 23, 2005 (the effective date of this AD), unless already accomplished.	Follow GARMIN Mandatory Software Service Bulletin No.: 0304, Rev B, dated June 12, 2003 accomplished. (Software Upgrade 3.03) or GARMIN Mandatory Software Service Bulletin No.: 0409, dated July 19, 2004 (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.

TRADUCTION de la DIRECTIVE de NAVIGABILITE n° FAA 2005-01-19

Ce document est une traduction de courtoisie de l'AD FAA 2005-01-19 ci-jointe.

Directive de Navigabilité No 2005-01-19 GARMIN INTERNATIONAL INC

Quand cette directive devient-elle effective ?

(a) Cette directive devient effective à partir du 23 février 2005.

Y a-t'il d'autres directives affectées par cette mesure ?

(b) Cette directive remplace l'AD 2004-10-15, amendement 39-13645.

Quels aéronefs sont affectés par cette Directive de Navigabilité ?

(c) Cette consigne concerne les transpondeurs mode S GARMIN INTERNATIONAL INC GTX33, GTX33D, GTX330 & GTX330D qui fonctionnent sous les versions logicielles 3.00, 3.01, 3.02, 3.04 ou 3.05 qui sont installés, mais pas exclusivement, sur les aéronefs certifiés dans toutes les catégories et listés dans le (c) de l'AD d'origine.

Quel est la condition non sûre présentée dans cette Directive de Navigabilité ?

(d) Cette consigne est le résultat d'observations indiquant que le GTX33/GTX33D/GTX330/GTX330D peut détecter, en provenance d'autres aéronefs, l'impulsion d'interrogation S1 (suppression) en dessous du seuil minimum de déclenchement (MTL) et dans certaines circonstances peut ne pas y répondre. Le GTX33/GTX33D/GTX330/GTX330D devrait continuer à répondre même s'il détecte l'impulsion S1 en dessous du MTL. Les mesures de cette AD ont pour but d'empêcher qu'un appareil reçoive des réponses erronées d'un appareil équipé avec un GTX33/GTX33D/GTX330/GTX330D lorsque les impulsions sont en dessous du MTL. Les mises à jour des versions 3.03 & 3.06 corrigent le problème "whisper-shout" des TAS, TCAD et TCAS I qui pouvait rendre l'aéronef invisible à certaines distances. Les TCAS II ne sont pas concernés. Les réponses erronées peuvent réduire les séparations verticales.

Que dois-je faire pour aborder ce problème ?

(e) Pour aborder ce problème vous devez appliquer les mesures suivantes :

Mesures	Délai d'application	Procédures
Installer au moins la version 3.06 pour les transpondeurs qui disposent des versions 3.00, 3.01, 3.02, 3.04 & 3.05. Si la version 3.03 est déjà installée, aucune autre action n'est requise, Cette version n'est plus disponible chez GARMIN. Cette AD ne s'applique pas aux versions supérieures à 3.05.	Installer la mise à jour du logiciel dans les 180 jours après le 23 février 2005, date d'entrée en vigueur de l'AD, sauf si précédemment installée.	Suivre le Service Bulletin Obligatoire (MSB) GARMIN n° 0304 Rév B (mise à jour version 3.03) ou le MSB No 0409 (mise à jour version 3.06)