



Service Information Letter

SIL Number:	606-00083-016		
To:	Owners/Operators of Avidyne R9		
Subject:	Course Deviation Indicator (CDI) error when the leg into the Final Approach Fix (FAF) is not aligned with final approach course		
Purpose:	This Service Information Letter (SIL) advises owners and operators of Avidyne R9 of a condition in which incorrect deviations will be displayed		
Revision:	00	Date:	05/05/2015

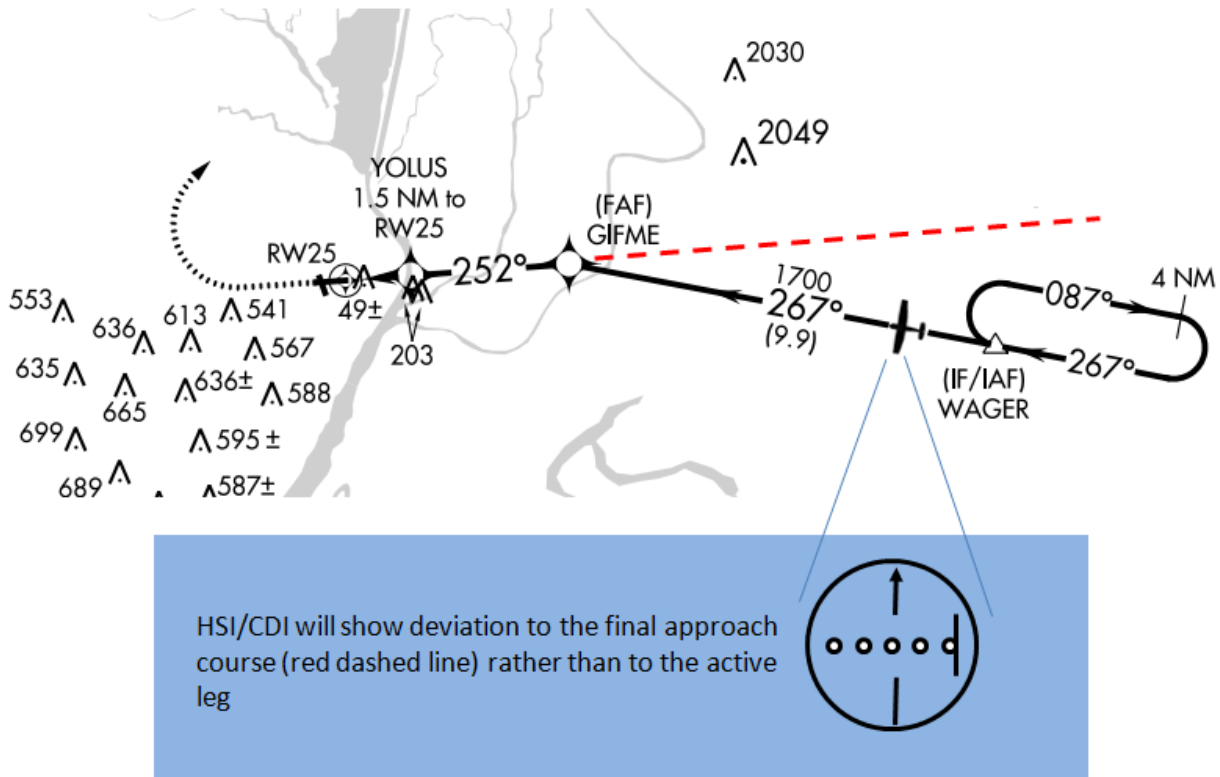
Effectivity:

Description	R9
Avidyne Part Number	700-00083-000, 700-00083-001, 700-00083-002
Avidyne Software Release	Release 9.3.1 and earlier
Aircraft Installation	ALL

Issue Description:

This Service Information Letter (SIL) advises owners and operators of Avidyne R9 with Release 9.3.1 (or earlier) Software of a condition that will cause incorrect display of lateral deviations.

The condition occurs when flying certain SBAS approaches (WAAS- or EGNOS-based LNAV/VNAV, LP or LPV approaches), the leg to the Final Approach Fix (FAF) is active, and the leg to the FAF is not aligned with the final approach course (i.e. an angled entry to the FAF). This condition may exist as part of a published approach, but can also be induced by using the Direct-To function and the OBS function. In Release 9.3.1 (and earlier) software, the R9 will produce lateral deviations to the final approach course as soon as the leg to the FAF becomes active. Therefore, when the leg does not align with the final approach course, the CDI will show a deviation when, in fact, the aircraft is on the proper course for the active leg. See the picture below for an example representation of this issue:



This condition will occur on certain SBAS approaches (LNAV/VNAV, LP or LPV) when being flown via a published IAF or IF. It does not affect the use of Vectors-To-Final (VTF). When flying a non-SBAS (e.g. ILS, VOR) approach and when flying an SBAS approach via vectors-to-final, the R9 deviations are correct. No EGNOS SBAS approaches are affected as of nav data cycle 1505. (Note that EGNOS SBAS approaches are, however, affected by the issue if a Direct-to or OBS leg is initiated to the FAF.)

The affected airfields/approaches are identified in the table below (current as of nav data cycle 1505). It is the pilot's responsibility to determine whether or not any particular approach is affected in the version of nav data installed on the aircraft at the time the approach is to be flown. (While no LNAV/VNAV approaches appear in this list, they could be included in some future release of the data.)

State	Airport	Airport Identifier	Approach	Approach Type
ON	TORONTO/BILLY BISHOP TORONTO C	CYTZ	RNAV 8	LPV
QC	TROIS-RIVIERES	CYRQ	RNAV 5	LPV



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State	Airport	Airport Identifier	Approach	Approach Type
AK	PALMER MUN	PAAQ	RNAV 9	LP
AK	COLD BAY	PACD	RNAV 26	LP
AK	CORDOVA-SMITH	PACV	RNAV 27	LPV
AK	GUSTAVUS	PAGS	RNAV 29	LP
AK	TATITLEK	PAKA	RNAV 31	LP
AK	WASILLA	PAWS	RNAV 22	LPV
AL	MOBILE DOWNTOWN	KBFM	RNAV 18	LPV
AL	NORTHEAST ALABAMA REGL	KGAD	RNAV 36	LP
AL	TROY MUN-CAMPBELL	KTOI	RNAV 14	LP
AR	DRAKE	KFYV	RNAV 34	LP
AZ	MARANA REGL	KAVQ	RNAV 21	LP
AZ	MARANA REGL	KAVQ	RNAV 12	LP
AZ	LAKE HAVASU CITY	KHII	RNAV 14	LP
AZ	LAUGHLIN/BULLHEAD INTL	KIFP	RNAV 16	LP
CA	CABLE	KCCB	RNAV 6	LP
CA	MONTEREY REGIONAL	KMRY	RNAV 28LY	LP
CA	BROWN MUN	KSDM	RNAV 8L	LPV
CA	GILLESPIE	KSEE	RNAV 17	LP
CA	ZAMPERINI	KTOA	RNAV 11L	LPV
CA	VISALIA MUN	KVIS	RNAV 12	LPV
CA	OAKDALE	O27	RNAV 28	LPV
CA	OAKDALE	O27	RNAV 10	LPV
CA	RIO VISTA MUN	O88	RNAV 25	LP
CO	SPANISH PEAKS	4V1	RNAV 27	LPV
CO	SPANISH PEAKS	4V1	RNAV 9	LPV
CO	CENTRAL COLORADO REGL	KAEJ	RNAV 33	LP
CO	CENTENNIAL	KAPA	RNAV 35RZ	LPV
CO	TELLURIDE REGL	KTEX	RNAV 9	LP



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State	Airport	Airport Identifier	Approach	Approach Type
DC	MANASSAS REGL/DAVIS	KHEF	RNAV 34R	LP
FL	JACKSONVILLE EXECUTIVE AT CRAI	KCRG	RNAV 14	LPV
FL	PALM BEACH CO PARK	KLNA	RNAV 33	LP
FL	OKEECHOBEE CO	KOBE	RNAV 14	LP
FL	TAMPA EXECUTIVE	KVDF	RNAV 5	LPV
FL	MARION CO	X35	RNAV 23	LP
GA	AUGUSTA REGL AT BUSH	KAGS	RNAV 8-Z	LPV
IA	FOREST CITY MUN	KFXY	RNAV 15	LPV
ID	DRIGGS-REED MEML	KDIJ	RNAV 3	LP
IL	EFFINGHAM CO MEML	1H2	RNAV 29	LPV
IL	CHICAGO MIDWAY INTL	KMDW	RNAV 22LZ	LP
IN	GOSHEN MUN	KGSH	RNAV 9	LP
LA	LEESVILLE	L39	RNAV 18	LPV
MD	HAGERSTOWN REGL-HENSON	KHGR	RNAV 27	LPV
MD	MARTIN STATE	KMTN	RNAV 15	LP
MI	CHEBOYGAN CO	KSLH	RNAV 10	LP
MI	WILLOW RUN	KYIP	RNAV 23R	LP
MI	BOYNE CITY MUN	N98	RNAV 27	LP
MN	FLYING CLOUD	KFCM	RNAV 28L	LPV
MN	FLYING CLOUD	KFCM	RNAV 28R	LPV
MN	HALLOCK MUN	KHCO	RNAV 13	LPV
MN	WORTHINGTON MUN	KOTG	RNAV 36	LPV
MN	STAPLES MUN	KSAZ	RNAV 32	LPV
MN	ST PAUL DOWNTOWN-HOLMAN	KSTP	RNAV 14	LPV
MO	ELDON MODEL	H79	RNAV 18	LP
MT	CUT BANK INTL	KCTB	RNAV 5	LPV



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State	Airport	Airport Identifier	Approach	Approach Type
MT	CUT BANK INTL	KCTB	RNAV 14	LPV
MT	DILLON	KDLN	RNAV 17	LPV
MT	LEWISTOWN MUN	KLWT	RNAV 26	LPV
MT	SHER-WOOD	KPWD	RNAV 12	LPV
NC	SHELBY-CLEVELAND CO REGL	KEHO	RNAV 23	LPV
NC	WAYNE EXECUTIVE JETPORT	KGWW	RNAV 5	LPV
NJ	ATLANTIC CITY INTL	KACY	RNAV 22	LPV
NJ	TETERBORO	KTEB	RNAV 6-X	LPV
NJ	SOUTH JERSEY REGL	KVAY	RNAV 26	LP
NJ	FLYING W	N14	RNAV 19	LPV
NM	CAVERN CITY	KCNM	RNAV 3	LPV
NM	LEA CO REGL	KHOB	RNAV 21	LPV
NM	LOS ALAMOS	KLAM	RNAV 27-Z	LP
NM	LOS ALAMOS	KLAM	RNAV 27-Y	LP
NM	SOCORRO MUN	KONM	RNAV 33	LP
NV	CARSON	KCXP	RNAV 27	LP
NV	ELY/YELLAND	KELY	RNAV 18	LPV
NV	TONOPAH	KTPH	RNAV 15	LP
NY	LE ROY	5G0	RNAV 28	LP
NY	BUFFALO NIAGARA INTL	KBUF	RNAV 14	LP
NY	NIAGARA FALLS INTL	KIAG	RNAV 6	LPV
NY	KENNEDY INTL	KJFK	RNAV 13RZ	LPV
NY	ADIRONDACK REGL	KSLK	RNAV 9	LP
OH	BELLEFONTAINE REGL	KEDJ	RNAV 25	LPV
OH	BELLEFONTAINE REGL	KEDJ	RNAV 7	LPV
OH	TOLEDO EXECUTIVE	KTDZ	RNAV 4	LP
OH	FULTON CO	KUSE	RNAV 27	LPV



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State	Airport	Airport Identifier	Approach	Approach Type
OR	BEND MUN	KBDN	RNAV 16-Y	LP
OR	LAKE CO	KLKV	RNAV 35	LPV
OR	ROBERTS	KRDM	RNAV 4-Y	LPV
PA	WILLIAMSPORT RGNL	KIPT	RNAV 12	LP
PA	NORTHUMBERLAND CO	N79	RNAV 8	LPV
SC	BEAUFORT MCAS	KNBC	RNAV 5	LPV
TN	BAKER	2M8	RNAV 36	LPV
TN	SMYRNA	KMQY	RNAV 19	LP
TX	LOCKHART MUN	50R	RNAV 18	LPV
UT	LOGAN-CACHE	KLGU	RNAV 17	LP
UT	NEPHI MUN	U14	RNAV 35	LPV
VA	BROOKNEAL-CAMPBELL CO	0V4	RNAV 24	LP
VA	CHARLOTTESVILLE-ALBEMARLE	KCHO	RNAV 21-Y	LP
VA	WARRENTON-FAUQUIER	KHWY	RNAV 33	LP
VA	ROANOKE REGL/WOODRUM	KROA	RNAV 24	LP
VA	NEW KENT CO	W96	RNAV 11	LP
WA	SKAGIT REGL	KBVS	RNAV 29	LPV
WA	BREMERTON NATL	KPWT	RNAV 2	LPV
WI	REEDSBURG MUN	C35	RNAV 18	LP
WI	ALEXANDER FLD SOUTH WOOD CO	KISW	RNAV 2	LPV
WI	BONG	KSUW	RNAV 4	LP
WY	LARAMIE REGL	KLAR	RNAV 3	LPV
WY	LARAMIE REGL	KLAR	RNAV 21	LPV

Required Pilot Actions:

When planning to fly a potentially affected SBAS approach (LNAV/VNAV, LP or LPV), the pilot must determine whether the published approach has geometry such that the leg to the FAF is not aligned



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with the final approach course. Further, the pilot must not accept a clearance direct-to, or by OBS to, the FAF of the affected airfield/approaches if the resulting leg is not aligned with the final approach course.

When the non-alignment condition exists, the pilot must **not** navigate using the published procedure data or course deviations shown on the IFD until the aircraft has reached the FAF.

Until this problem is resolved in software, the pilot must not select a published transition from the IFD FMS on any of these affected approaches unless it is a Vectors-To-Final (VTF) transition. Instead, the pilot must request and receive a VTF clearance and must activate the VTF transition in the IFD FMS.

If ATC is unable to provide a VTF clearance, an alternate approach must be used.

In all cases, basic airmanship should be exercised and fundamentals utilized such as Maintain Aircraft Control, Analyze the Situation, and Take Proper Action.

Solution:

The software change will be incorporated in software release 9.3.2. Avidyne requires all owner/operators of the R9 to update the software to Release 9.3.2 when it is available to resolve this issue.

Contact Information:

For any questions regarding this Service Information Letter please contact Avidyne Technical Support at:

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