



U.S. Department of Transportation Federal Aviation Administration ADS-B Compliance Monitor

ADS-B Aircraft Operation Compliance Report

ICAO: A3CDD5 (50746725) Tail Number: N344TB

Flight Id: N344TB

Period: 05-13-2015 18:05:59 to 05-13-2015 18:57:07

Aircraft: PIPER PA-34-200T

Year - Make / Model

Operation Analysis Overview

	Analysis	Exceptions
Airborne 1090	☒	☐
Surface 1090	☐	☐
Surface RWY/Taxi 1090	☐	☐
Airborne UAT	☐	☐
Surface UAT	☐	☐
Surface RWY/Taxi UAT	☐	☐

Prepared For Owner of Record:

SHERER SCOTT
8784 WHISPERING OAKS CT

FRANKLIN, WI 53132-8542

Prepared By

Surveillance and Broadcast Services (SBS) Program
ADS-B Compliance Monitor

May 14, 2015

Note: Items highlighted in red within this report indicate the ADS-B Out system installed on this aircraft failed to meet the corresponding performance requirement as specified in § 91.227. The owner/operator must take action to correct the ADS-B system deficiency identified.

Operation Summary

Operation Id:	5299566	Start Time:	05-13-2015 18:05:59
ICAO Reported:	A3CDD5 (50746725)	End Time:	05-13-2015 18:57:07
ICAO Assigned:	A3CDD5 (50746725)	Duration (s):	00:51:08
Tail Number:	N344TB	Total Reports:	18588
Country:	United States - Civil		

Detection: ☒ Airborne ☐ Surface **Service Area(s):** ☐ Western ☒ Central ☐ Eastern

Service Volume Initial: 1011 - Chicago

Service Volume Final: 152 - Milwaukee

Link Version: 2 **Out Capability:** 1090 **In Capability:**

Flight Id: N344TB ☐ Military

Operator: ☐ Anonymous

Exceptions: Airborne 1090 in rule airspace ☐ Airborne UAT in rule airspace ☐

Airborne 1090 ☐ Surface 1090 ☐ Airborne UAT ☐ Surface UAT ☐

Aircraft Summary

Type Aircraft: Fixed-Wing Multi-Engine	Type Engine: Reciprocating
Certification: Type Certified	Airworthiness Date:
Cert Date: 08/17/2004 Expiration 01/31/2018	Classification: ??
Make: PIPER	Year:
Model: PA-34-200T	Serial: 34-7770181

Type Registration: Individual

Owner: SHERER SCOTT

Street: 8784 WHISPERING OAKS CT

Street:

City: FRANKLIN **State:** WI **Zip:** 53132-8542

[FAA Civil Aviation Registry Link...](#)

Airborne 1090 Analysis Summary

Start Time: 05-13-2015 18:05:59

End Time: 05-13-2015 18:57:07

Duration (s): 00:51:08

Processed Reports: 2996

Total Reports: 18588

Service Volume Initial: 1011 - Chicago

Service Volume Final: 152 - Milwaukee

Link Version: 2

Out Capability: 1090

In Capability:

Emitter Category: 2 - Small (15,500-75,000lbs)

Antenna(s): 1 - Single

SILsupp: 0 - Per Hour

Flight Id: N344TB

☐ **Vert Velocity Baro**

Mode 3A: 1200

☒ **Vert Velocity Geo**

Exceptions:

Rule	Miss Ele	Int \ Acc	Kin	Other	NIC	NACp	NACv	SIL	SDA
No	No	No	No	No	No	No	No	No	No

Class A	Class B	Class C	Class D	Class E	Part91AppD
☐	☐	☐	☐	☐	☐

Missing Elements

Category	NACp	NACv	Vel	Baro Alt	Geo Alt	Flight Id	Mode 3A	Emit Cat
% Fail	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Max dT(s)	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00
MCF	0	0	0	0	0	0	0	0

Integrity & Accuracy

Category	NIC	NACp	NACv	SIL	SIL Sup	SDA	NIC_SVT	NACp_SVT	Val	eVAL	eVal NIC
% Fail	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Max dT(s)	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00
MCF	0	0	0	0	0	0	0	0	0	0	0

Category	NIC	NACp	NACv	SIL	SDA
Avg	8.0	10.0	1.0	3.0	3.0
Min	8	10	1	3	3
Max	8	10	1	3	3

Kinematics

	Baro Alt	Baro Alt Δ	Geo Alt	Geo Alt Δ	Velocity	Position Δ
% Fail	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
MCF	0	0	0	0	0	0

Other Checks

	Link Version	Emitter Cat	Flight ID	Mode 3A
% Fail	0.00%	0.00%	0.00%	0.00%
MCF	0	0	0	0

	ICAO Duplicate	Anonymous	UAT Only above 18K
% Fail	0.00%	0.00%	0%
Max dT (s)	00:00:00	00:00:00	00:00:00
MCF	0	0	0

Notes:

MCF - Maximum Consecutive Failures

Distributions

NIC - Horizontal Containment Bound

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Unkn	< 20NM	< 8NM	< 4NM	< 2NM	< 1NM	< .6NM	< .2NM	< .1NM	< 75m	< 25m	< 7.5m	XXX	XXX	XXX	XXX
0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
0	0	0	0	0	0	0	0	2996	0	0	0	0	0	0	0

NACp - 95% Horizontal Accuracy Bound (EPU)

NA	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	$\geq 10\text{NM}$	$< 10\text{NM}$	< 4NM	< 2NM	< 1NM	< .5NM	< .3NM	< .1NM	$< .05\text{NM}$	< 30m	< 10m	< 3m	XXX	XXX	XXX	XXX
0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
0	0	0	0	0	0	0	0	0	0	0	2996	0	0	0	0	0

NACv - 95% Horizontal Velocity Error

NA	0	1	2	3	4	5	6	7
	$\geq 10\text{m/s}$	< 10m/s	< 3m/s	< 1m/s	< .3m/s	Reserved	Reserved	Reserved
0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
0	0	2996	0	0	0	0	0	0

SIL - Source Integrity Level

0	1	2	3
$> 1 \times 10^{-3}$	$\leq 1 \times 10^{-3}$	$\leq 1 \times 10^{-5}$	$\leq 1 \times 10^{-7}$
0.0%	0.0%	0.0%	100.0%
0	0	0	2996

SILs - SIL Supplement

0	1
/Hour	/Sample
100.0%	0.0%
2996	0

SDA -System Design Assurance

0	1	2	3
$> 1 \times 10^{-3}$	$\leq 1 \times 10^{-3}$	$\leq 1 \times 10^{-5}$	$\leq 1 \times 10^{-7}$
0.0%	0.0%	0.0%	100.0%
0	0	0	2996

GVA - Geometric Velocity Accuracy

0	1	2	3
>150m	$\leq 150\text{m}$	$\leq 45\text{m}$	Reserved
0.0%	0.0%	100.0%	0.0%
0	0	2996	0

Distributions (continued)

Validation

0	1	2	3
Unknown	Invalid	Reserved	Valid
0.0%	0.0%	0.0%	100.0%
0	0	0	2996

Enhanced Validation

0	1	2	3
Unknown	Invalid	Reserved	Valid
100.0%	0.0%	0.0%	0.0%
2996	0	0	0

NIC Baro

0	1	2	3
Not XCheck	X Check	Reserved	Reserved
100.0%	0.0%	0.0%	0.0%
2996	0	0	0

SQL - Signal Quality Level

Category	0	1	2	3	4	5	6	7
1090 ES	≤ -90dBm	≤ -87dBm	≤ -84dBm	≤ -81dBm	≤ -78dBm	≤ -72dBm	≤ -66dBm	> -66dBm
UAT	≤ -96dBm	≤ -93dBm	≤ -90dBm	≤ -87dBm	≤ -84dBm	≤ -78dBm	≤ -72dBm	> -72dBm
	0.2%	0.2%	0.3%	0.7%	1.0%	2.4%	33.3%	61.9%
	5	7	8	20	31	72	998	1855