



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

## ADS-B Aircraft Operation Compliance Report

ICAO: ADA520 (53322440) Tail Number: [REDACTED]

Last Flight Id: [REDACTED]

Period: 12-19-2015 15:40:59 to 12-19-2015 16:21:42

Aircraft: [REDACTED] AN'S RV-9A

Year - Make / Model

### Operation Analysis Overview

	Analysis	Exceptions
<b>Airborne 1090</b>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Surface 1090</b>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Surface RWY/Taxi 1090</b>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Airborne UAT</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Surface UAT</b>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Surface RWY/Taxi UAT</b>	<input type="checkbox"/>	<input type="checkbox"/>

Prepared For Owner of Record:

[REDACTED]  
[REDACTED]  
[REDACTED]

Prepared By

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

**December 21, 2015**

**Note:** Items high-lighted 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

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Operation Id: 20029910      Start Time: 12-19-2015 15:40:59  
ICAO Reported: ADA520 (53322440)      End Time: 12-19-2015 16:21:42  
ICAO Assigned: ADA520 (53322440)      Duration: 00:40:42      Mod: 00:34:22  
Tail Number: [REDACTED]      Total Reports: 9627      Best Msg: 1942  
Country: United States - Civil      Stationary: No      TIS-B Client %: 84.4%

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Detection:       Airborne     Surface      Service Area(s):     Western     Central     Eastern  
Service Volume Initial: 1005 - Atlanta  
Service Volume Final: 1005 - Atlanta

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Link Version: 2      Out Capability: UAT      In Capability: DUAL  
Last Flight Id: [REDACTED]       Military  
Operator:       Anonymous  
Exceptions:    Airborne 1090 in rule airspace          Airborne UAT in rule airspace      
                 Airborne 1090        Surface 1090          Airborne UAT        Surface UAT   

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## Aircraft Summary

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Type Aircraft: Fixed-Wing Single Engine      Type Engine: 4 Cycle  
Certification: Not Type Certified      Airworthiness Date: 11/17/2007  
Cert Date: 02/27/2014      Expiration 02/28/2017      Classification: Experimental  
Make: [REDACTED]      Year: 2007  
Model: [REDACTED]      Serial: [REDACTED]

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Type Registration: Individual  
Owner: [REDACTED]  
Street: [REDACTED]  
Street:  
City: [REDACTED]      State: [REDACTED]      Zip: [REDACTED]

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

# Airborne UAT Analysis Summary

**Start Time:** 12-19-2015 15:40:59

**End Time:** 12-19-2015 16:21:42

**Duration(s):** 00:40:42

**Mod:** 00:34:22

**Processed Reports:** 1917

**Total Reports:** 9627

**Service Volume Initial:** 1005 - Atlanta

**Service Volume Final:** 1005 - Atlanta

**Link Version:** 2

**Out Capability:** UAT

**In Capability:** DUAL

**Emitter Category:** 0 - No ADS-B Emitter  
Category Information

**Antenna(s):** 1 - Single

**SILsupp:** 0 - Per Hour

**Last Flight Id:** XXXXXXXXXX

**Vert Velocity Baro**

**Last Mode 3A:** 0224

**Vert Velocity Geo**

**Exceptions:**

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

Class A	Class B	Class C	Class D	Class E	Part91AppD
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Missing Elements

Category	NACp	NACv	Vel	Flight Id	Mode 3A	Emit Cat	Baro Alt	Geo Alt
% Fail	0.00%	0.00%	0.00%	0.42%	0.00%	0.00%	0.00%	0.00%
Max dT	00:00:00	00:00:00	00:00:00	00:00:15	00:00:00	00:00:00	00:00:00	00:00:00
MCF	0	0	0	7	0	0	0	0

## Integrity & Accuracy

Category	NIC	NACp	NACv	SIL	SDA	SIL Sup	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	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	9.0	3.0	3.0	2.0
Min	8	9	3	3	2
Max	8	9	3	3	2

## Kinematics

	Velocity	Position Δ	Enh position Chk	Baro Alt	Baro Alt Δ	Geo Alt	Geo Alt Δ
% Fail	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
MCF	0	0	0	0	0	0	0

## Other Checks

	Emitter Cat	Mode 3A	Link Version
% Fail	100.00%	0.05%	0.00%
Max dT	00:40:12	00:00:01	00:00:00
MCF	1917	1	0

	Flight ID	Mismatch	Non-US	No "N"	Only "N"	Partial	Spaces	All Spaces	Illegal Char	Unavail Char
% Fail	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Max dT	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

	Air on Ground	Anonymous	UAT Only above 18K	ICAO Dup Flag	ICAO Dup NAS	High Alt Data Gap
% Fail	0.00%	0.00%	0.00%	0.00%	0.00%	%
Max dT	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00
MCF	0	0	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	1917	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
	≥ 10NM	< 10NM	< 4NM	< 2NM	< 1NM	< .5NM	< .3NM	< .1NM	< .05NM	< 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%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
0	0	0	0	0	0	0	0	0	0	1917	0	0	0	0	0	0

## NACv - 95% Horizontal Velocity Error

NA	0	1	2	3	4	5	6	7
	≥ 10m/s	< 10m/s	< 3m/s	< 1m/s	< .3m/s	Reserved	Reserved	Reserved
0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
0	0	0	0	1917	0	0	0	0

## SIL - Source Integrity Level

0	1	2	3
> 1x10-3	≤ 1x10-3	≤ 1x10-5	≤ 1x10-7
0.0%	0.0%	0.0%	100.0%
0	0	0	1917

## SILs - SIL Supplement

0	1
/Hour	/Sample
100.0%	0.0%
1917	0

## SDA - System Design Assurance

0	1	2	3
> 1x10-3	≤ 1x10-3	≤ 1x10-5	≤ 1x10-7
0.0%	0.0%	100.0%	0.0%
0	0	1917	0

## GVA - Geometric Vertical Accuracy

0	1	2	3
>150m	≤ 150m	≤ 45m	Reserved
0.0%	0.0%	100.0%	0.0%
0	0	1917	0

## Distributions (continued)

### Validation

0	1	2	3
Unknown	Invalid	Reserved	Valid
2.0%	0.0%	0.0%	98.0%
38	0	0	1879

### Enhanced Validation

0	1	2	3
Unknown	Invalid	Reserved	Valid
57.1%	0.0%	16.2%	26.7%
1095	0	310	512

### UTC Coupling

0	1
non-UTC Coupled	UTC Coupled
0.0%	100.0%
0	1917

### NIC Baro

0	1	2	3
Not XCheck	X Check	Reserved	Reserved
100.0%	0.0%	0.0%	0.0%
1917	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
	3.2%	2.5%	2.6%	3.7%	5.9%	38.4%	25.9%	17.7%
	61	48	50	70	114	737	497	340