

## U.S. Dep't. of Commerce / OMAO / NOAA / Aircraft Operations Center

FLT ID: 20140225N1	From: PANC	To: KSUU
FLT #: 7PM 1930z	Blk In: 0226 z	Lnd Time: 0222 z
ETD: 1930z	Blk Out: 1908 z	T/O Time: 1922 z
ETE: 73000 7+30	Total Blk: 7.3	Total Flt: 7.0
Sponsoring Org: ESRL	Program: PAR	Purpose: INT AR

## AOC Flight Crew

Aircraft Commander: MOYERS	SSA: DEFFEO
Co-Pilot: MANSOUR, MacINTYRE	AVAPS: SMITH, RICHARDS
Navigator: /	Scientists: /
Flight Eng: /	Scientists: /
Flt Director: HENNING	Scientists: /
SEB: GOLDSTEIN /	Scientists: /

Crew Chief: ROTTEVEIL Visitors: STA 1014.4 / STA 1016.5

	A/C - Takeoff	Wx Station - Takeoff	A/C - Land	Wx Station - Land
Pressure		1853 30.09 1953 30.10		0153 30.08 0253 30.07

AS REQUIRED BY ORM		YES / NO	REMARKS	
VOLCANIC ASH				
SCIENCE MISSION WITHIN BOUNDARY LAYER				
LACK OF PRECIPITATION				
RELATIVE HUMIDITY AT OR ABOVE 80%				
LARGE AIR-SEA TEMPERATURE GRADIENT				
HIGH SURFACE WINDS				
LONG FETCH AND/OR DURATION OF SFC WIND				
SEA SALT ACCRETION FORECAST				
SEA SALT ACCRETION OBSERVED				

Dropsondes	4	Good: 4	Bad: 0	Sent: 3	(3 project + 1 AOC test sonde)
AXBT		Good: /	Bad: /	Sent: /	

List other data sources in Remarks section

Remarks (Storm VDM Identifier, Mission ID, Fix Times) VDM

Fix # Ob Num Fix Time / SLP

Storm Number Identifier (VDM): \_\_\_\_\_

(ie: AL072012)

TCPOD/WSPOD Mission ID: WXWX ATMOSRIVERL

(ie: NOAA2 2418A SANDY)

Remarks:

1	44	134
2	38	136
3	31	137
4	35	138
5	35	132



## N49RF ERROR SUMMARY

*Atmos Rivers #12*

PANC > KSUU 24 Feb 2014



**Flight ID: 20140224N1**

<u>Sensor or system</u>	<u>Number or Name</u>
Static Pressure Probe	PSM.2
Dynamic Pressure Probe	PQM.2
Total Temperature Probe	TTM.4
Dewpoint Temp. Probe	TDM.2
Vertical Accelerometer	AccZI.1
Altimeter	AltGPS.3
INE Selection	1
Differential Attack Pressure Probe	PDALPHA.2
Differential Sideslip Pressure Probe	PDBETA.2
Dynamic Attack Pressure Probe	PQALPHA.2
Dynamic Sideslip Pressure Probe	PQBETA.2
Constants File	49cal102
Flight Directory	acdata/MET/2014/20140224N1

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Notes:

The AAMPS data system failed at 02:20:39z just prior to landing at an altitude of about 190 meters. The science portion of the mission was not impacted.

TDM.1 and TDM.2 are both not rated for use under -50 deg C and cannot be considered reliable for dew points colder than -50C. TDM.1 exceeded the ambient temperature for nearly the entire mission during cruise above 41,000 feet. TDM.2 was used for post processing.

TTM.3 continues to display an oscillation with a magnitude of about 0.5 degrees C, however the period which had been between 120 and 180 seconds on most previous mission was much longer on this flight: closer to 5 minutes.

Also of significance: TTM.4 had been displaying a small oscillation (less than 0.1 deg C) with a very short period (about 10-20 seconds) on the previous nine missions (AR missions #3 through #11) at high altitude. However, on this flight there was no evidence of anything other than random variability in TTM.4 (which is the Total Temp source used for post processing). TTM.1 is about a degree colder than the other total temps at cruise altitude.

	Takeoff (1922Z)	Landing (0222Z)
Aircraft Static Pressure	1013.7 mb	Unavailable
Corrected Tower Pressure	1014.4 mb	N/A

4 Dropsondes deployed (3 project inventory + 1 AOC IR test sonde). All were good and transmitted.

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Flight Director: Richard Henning  
Phone #: (813) 828-3310 ext. 3086

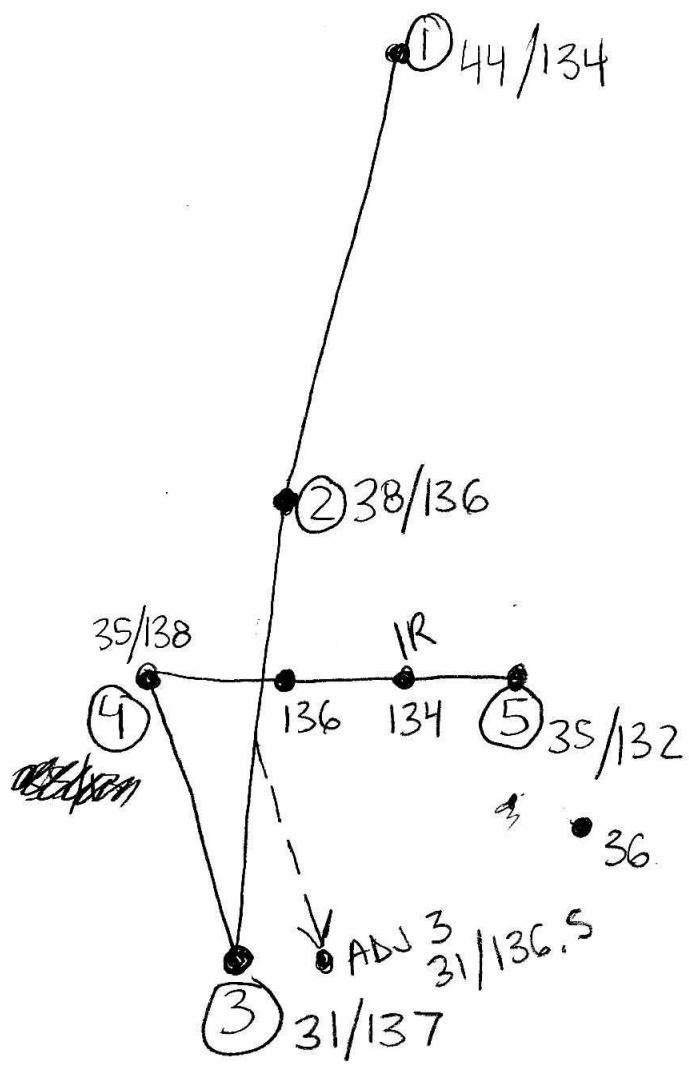
## AOC GPS Dropwindsonde Log

Flight ID: 20140224N1Flight Director: HENNINMission ID: WXWXC ATMOSRWERL

Storm/Track:

Pg    of   

Ch. #	Drop #	Sonde ID	Drop Time (UTC)	Lat (°N)	Lon (°W)	Wx Cond.	SFC Prs (mb)	Ob #	L5/R5	Last Winds R5 (ht, ws, wd)	Last Winds L5 (ht, ws, wd)	Sent Time/kWBC (UTC)
1	1	5029	0032					1	✓	250 + 19		
2	2	5037	0045					2		265 at 13	927 mb	255/33
3	3	5027	0057			FAIL after LAUNCH then came back		3		180 at 25	922 mb	195 at 47
4	4	5720	0057			BACKUP						



## ATTACHMENT 1 (See the Fillable Form)

Hazards encountered during performance of duty		Date:
<b>Employee name(s):</b> <b>Recommended by:</b> <b>(Name and Title)</b> 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17.		<b>Time of exposure or Flight Times (if applicable):</b> <b>Start:</b> <b>End:</b> <b>Time:</b> <b>Task Code:</b>
Altitude chamber subject exposed to greater than 18,000 feet. Toxic chemical exposure. Explosive or incendiary devices (CAD). Initial or transitional pilot proficiency training involving simulated emergency procedures. Test flight of newly repaired or modified aircraft. Close formation flights. Flights at levels below 500 feet/ day Flights at levels below 1000 feet/ night		
<b>Extreme Weather Conditions:</b> Tropical Cyclones Winter storm low altitude convection or wind shear. Winter storm within 5000 feet of convective squall line. Winter storm within 100 nm of jet stream core entrance. Thunderstorms: In close proximity or through cumulonimbus, cumulus congestus clouds, or thunderstorms. Atmospheric waves within 5000 feet of mountains with winds greater than 25 knots. Atmospheric waves in areas of high boundary layer turbulence.		
<b>Approving Official Signature / Title</b>		<b>Date</b>

NOAA • AOC • SED

N49RF AVAPS DROP LOG

Lead Tech: Gabe Defeo

Project : Atmospheric Rivers 2014

Mission : AR-12

Flight ID : 20140224N1

Take Off: 1922 Landing:

Elt Dir: *Hendrik*

Elt Dir: Hendrie      Launcher S/N:

02/24/2014, 18:29:30–26:21:39

