

U.S. Dep't. of Commerce / NMAO / NOAA / Aircraft Operations Center				
FLT ID: 2010 0202N1	From: RITY	To: RITY		
FLT #: 10 - 31	Blk In: 1525 <i>(z)</i> 7.6	Lnd Time: 1522 z	<i>(7.4)</i>	
ETD: 0800 z	Blk Out: 0747 <i>(z)</i>	T/O Time: 0758 z	<i>(7.4)</i>	
ETE: 7 hrs 0 19 min	Total Blk: 7 hrs 38 min	Total Flt: 7 hrs 24 min		
Sponsoring Org:	Program: TPARC - WSR10	Purpose: Surveillance		
AOC Flight Crew				
Aircraft Commander: Langenecker	Data System: Carpenter			
Co-Pilot: Glover / Toth	Avaps: Greene			
Navigator: /	System Engineer:			
Flight Eng: /	AA: Paul, Steven			
Flt Director: Almeida /	AA:			
Avionics:	Crew Chief:			
Participating Scientists, Visitors, & Add'l Aircrew on back.	Total # of people on board: 7	# of people listed on back: 8		
	A/C - Takeoff	Wx Station - Takeoff	A/C - Land	
Pressure			Wx Station - Land	
ATIS - Takeoff				
ATIS - Land				
Data Source	Number	Data Disposition / Date / Quality / File Name(s)		
Flight Level Tapes		1001rf09a.adb		
Radar Tapes	<i>(e)</i>	<i>Fast + Full</i>		
Dropsondes	15	Good: 14	Bad: 1 Sent: 14	
AXBT	<i>(e)</i>			
List other data sources on back in Remarks section.				
Remarks (Storm Name, Mission ID, Recco Times, Fix Times)		Recco Times:	Fix #	Fix Time
Storm Name: Track 99				
Mission ID: NOAA 9 12WSW				

CP: 167.7 E      START/STOP: 150° E  
45.8 N      Drops



**NOAA G-IV N49RF**

**WSR10**

**02 February 2010**



**Flight ID: 20100202N1**

<u>Sensor or system</u>	<u>Number or Name</u>
Accelerometer	ACINS
Altitude	PALT
Attack Angle	AKRD2
Dew Point Probe	DPR
Dynamic Pressure	QC2M
Geopotential Altitude	GPGALT
Inertial Selected	VEW, VNS
Static Pressure	PS2M
Slip Angle	SSRD1
Temperature Probe	AT3/TT3
True Air Speed	TAS2
Constants File	49cal093
Project Directory	/proj/1001

Local Met Data:	Takeoff (0758Z)	Landing (1522Z)
Aircraft Static Pressure	101#.# mb	101#.# mb
Tower Pressure (corrected)	101#.# mb	101#.# mb

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Notes:

There are some spikes throughout the flight in the HGM232 radar altimeter. Collins altitude (GPALT) used instead in meteorological calculations.

There are spikes in all INE2 (\_PITR), Honeywell GPS #2 (\_SG1) variables and PCAB variable at 0800z, 0900z, 1000z, 1200z, 1300z, and 1400z. PCAB has some additional spikes at 1144z and 1314z.

Throughout the flight INE2's position drift is larger than INE1, thus INE1 is used in meteorological calculations.

There is about a 2mb difference between PS1M and PS2M. From test flights comparing aircraft data to dropsonde data PS2M has been closer to representing the actual atmosphere.

PS1M has spikes in its data at 0910z-0919z.

There were periods where the dewpoint temperature exceeded the ambient temperature resulting in RH values > 100%. This was likely due to passing through a cloud layer, a wet-bulb effect on the total temperature sensor, and/or an artificial warming of the dewpoint sensor as it tried to burn off excess moisture. Corrections were not made to the data.

All other instruments worked optimally during the flight

15 dropsondes launched: 14 good, 01 bad

All 14 good drops successfully sent to NCEP and ingested into the 02/12Z model run.

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Flight Director:  
Phone #:

LTJG Jackie Almeida  
(813) 828-3310 ext. 3075

Flight: 20100202N1

Inertial Altitude  
 ALT (m)  
 IRS Baro-Inertial Altitude  
 ALT\_PITR (m)  
 IRS Baro-Inertial Altitude  
 ADCBCALT (m)  
 DADC Baro Corrected Altitude

Radar Altitude  
 HGM232 (m)  
 Geometric (Radar) Altitude

Pitch vs Alt  
 PITCH (deg)  
 Aircraft Pitch Angle  
 PITCH\_PITR (deg)  
 Aircraft Pitch Angle

Heading vs Trk  
 THDG (deg)  
 IRS1  
 THDG\_PITR (deg)  
 IRS2

GPS Altitude  
 GHALT\_SG1 (m)  
 Honeywell GPS Altitude (MSL)  
 GHALT\_SG2 (m)  
 Honeywell GPS Altitude (MSL)  
 GPALT (m)  
 Collins GPS Altitude (MSL)

D-Value  
 DVALU (m)  
 D-VALUE  
 Geopotential Alt Source - **PALT**

Roll vs Hdg  
 ROLL (deg)  
 Aircraft Roll Angle  
 ROLL\_PITR (deg)  
 Aircraft Roll Angle

Drift Angles  
 AOCDAA (deg)  
 Computed Drift Angle  
 AOCDAA\_PITR (deg)  
 Computed Drift Angle  
 DRFTA (deg)  
 IRS1 Drift Angle  
 DRFTA\_PITR (deg)  
 IRS2 Drift Angle

Pressure Altitude  
 PALT (m)  
 NACA Pressure Altitude  
 PALTF (feet)  
 NACA Pressure Altitude  
 ADCPALT (m)  
 DADC Pressure Altitude

Geopotential Altitude  
 GPGALT (m)  
 Collins GPS  
 Geopotential Altitude  
 HGALT (m)  
 APN-232 Radar  
 Geopotential Altitude

Some spikes appear less/smal than last year flights

Track vs DA  
 AOCTK (deg)  
 Computed Aircraft Track  
 Angle from IRS1  
 AOCTK\_PITR (deg)  
 Computed Aircraft Track  
 N/A TKAT (deg)  
 IRS1 Track Angle  
 N/A TKAT\_PITR (deg)  
 IRS2 Track Angle

N/A TKAR (deg/s)  
 IRS1 Aircraft Track  
 Angle Rate  
 TKAR\_PITR (deg/s)  
 IRS2 Aircraft Track  
 Angle Rate

Select the following variable references:

<input checked="" type="checkbox"/> ATTACK	AKRD(1, 2)	<input checked="" type="checkbox"/> QCX	QC(1, 2)M
<input checked="" type="checkbox"/> ATX	AT(1, 2, 3, 4)	<input checked="" type="checkbox"/> QCXC	QC(1, 2)C
<input checked="" type="checkbox"/> DPX	DP(L, R)	<input checked="" type="checkbox"/> SSLIP	SSRD(1, 2)
<input checked="" type="checkbox"/> DPXC	DP(L, R)C	<input checked="" type="checkbox"/> TASX	TAS(1, 2)
<input checked="" type="checkbox"/> DVALU	(HG, GPG)ALT	<input checked="" type="checkbox"/> TTX	TT(1, 2, 3, 4)
<input checked="" type="checkbox"/> PSX	PS(1, 2)M	<input checked="" type="checkbox"/> WI	IRS1 or 2
<input checked="" type="checkbox"/> PSXC	PS(1, 2)C	<input checked="" type="checkbox"/> XLATC	IRS1 or 2

- Print Trackline
- Print FD Log
- Print Calibration Worksheet
- Print Error Summary

r.nc file created  
 rc.nc file created  
 same file  
 no chgs

## Color Code

Red = Reference Variable  
 Blue = Inertial Variable  
 Green = Default Variable used in Reference Variable

Note: IRS = Inertial Reference System.

Equivalent to INS on P-3's. \_PITR denotes IRS#2.

Pg.1 - Alt, Pitch, Roll, Hdg, Trk, DA  
 Pg.2 - Lat, Lon, GPS...  
 Pg.3 - Temps, DP, Humidity...  
 Pg.4 - PQ, PS, Attack, SSkip, Winds...  
 Pg.5 - GS, Vert Velocity, TAS, Mach

Flight: 20100202N1

Latitudes	Longitudes	HDOP
<input checked="" type="checkbox"/> GHLATF_SG1 (deg) Honeywell GPS	<input checked="" type="checkbox"/> GHLONF_SG1 (deg) Honeywell GPS	<input type="checkbox"/> GHHDOP_SG1 (none) Honeywell GPS Horiz.
<input checked="" type="checkbox"/> Latitude, Fine GHLATF_SG2 (deg) Honeywell GPS	<input checked="" type="checkbox"/> Longitude, Fine GHLONF_SG2 (deg) Honeywell GPS	<input type="checkbox"/> Dilution of Precision <input checked="" type="checkbox"/> GHHDOP_SG2 (none) Honeywell GPS Horiz.
<input checked="" type="checkbox"/> Latitude, Fine GHLATF_SG1 (deg) Honeywell GPS Latitude	<input checked="" type="checkbox"/> Longitude, Fine GHLONF_SG1 (deg) Honeywell GPS	<input type="checkbox"/> Dilution of Precision <input checked="" type="checkbox"/> VDOP
<input checked="" type="checkbox"/> GHLATF_SG2 (deg) Honeywell GPS Latitude	<input checked="" type="checkbox"/> Longitude GHLONF_SG2 (deg) Honeywell GPS	<input type="checkbox"/> GHVDOP_SG1 (none) Honeywell GPS Vertical
<input checked="" type="checkbox"/> GPLAT (deg) Collins GPS Latitude	<input checked="" type="checkbox"/> GPLON (deg) Collins GPS Longitude	<input type="checkbox"/> Dilution of Precision <input checked="" type="checkbox"/> GHVDOP_SG2 (none) Honeywell GPS Vertical
<input checked="" type="checkbox"/> LAT (deg) IRS1 Latitude	<input checked="" type="checkbox"/> LON (deg) IRS1 Longitude	<input type="checkbox"/> Dilution of Precision <input checked="" type="checkbox"/> HFOM
<input checked="" type="checkbox"/> LAT_PITR (deg) IRS2 Latitude	<input checked="" type="checkbox"/> LON_PITR (deg) IRS2 Longitude	<input type="checkbox"/> GHHFOM_SG1 (m) Honeywell GPS Horiz.
<input checked="" type="checkbox"/> XLATC (deg) GPS-Corrected Inertial Latitude	<input checked="" type="checkbox"/> XLONC (deg) GPS-Corrected Inertial Longitude	<input type="checkbox"/> Figure of Merit <input checked="" type="checkbox"/> GHHFOM_SG2 (m) Honeywell GPS Horiz.
<input checked="" type="checkbox"/> GPS Differences GDIF1	Compare GPS lat/ion to inertial lat/ion to see which inertial did better during the flight. Compare their differences.	
<input checked="" type="checkbox"/> Position Difference (Collins - IRS1) GDIF2	<u>1085</u> Max position difference of INE1	
<input checked="" type="checkbox"/> Position Difference (Collins - IRS2)	<u>5587</u> Max position difference of INE2	
<input checked="" type="checkbox"/> Difference Utilities DIFF1	You can use the difference utilities for comparing the difference between any 2 quantities. Just change the inputs in NIMBUS and re-run to create a new NetCDF file. The difference is calculated by subtracting the second variable from the first	
<input checked="" type="checkbox"/> Difference Utility 1 (AT3 - ADCSAT)		
<input checked="" type="checkbox"/> DIFF2		
<input checked="" type="checkbox"/> Difference Utility 2 (PS2M - PS1M)		
<input checked="" type="checkbox"/> DIFF3		
<input checked="" type="checkbox"/> Difference Utility 3 (QC1M - QC2M)		

Pg.1 - Alt, Pitch, Roll, Hdg, Trk, DA  
Pg.2 - Lat, Lon, GPS...  
Pg.3 - Temps, DP, Humidity...  
Pg.4 - PQ, PS, Attack, SSlip, Winds...  
Pg.5 - GS, Vert Velocity, TAS, Mach

Flight: 20100202N1

Temperatures

Ambient Temperature  
 AT1 (degC)  
Ambient Temperature, Top Left  
N/A AT2 (degC)  
Ambient Temperature, Bottom Right  
 AT3 (degC)  
Ambient Temperature, Top Right  
 AT4 (degC)  
Ambient Temperature, Bottom Left  
3 ATX (degC)  
Ambient Temperature, Reference

Total Temperature  
 TT1 (degC)  
Total Temperature, Left Top  
N/A TT2 (degC)  
Total Temperature, Right Bottom  
 TT3 (degC)  
Total Temperature, Left Bottom  
 TT4 (degC)  
Total Temperature, Right Top  
3 TTX (degC)  
Total Temperature Reference

Dewpoint Temperature  
 DPLC (degC)  
Dew Point Temperature, Left  
 DPRC (degC)  
Dew Point Temperature, Right  
R DPXC (degC)  
Dew Point Temperature, Reference  
 DPL (degC)  
Left Dew/Frost Point Temperature  
 DPR (degC)  
Right Dew/Frost Point Temperature  
R DPX (degC)  
Dew/Frost Point Temperature, Reference

Air Temperature  
 ADCSAT (degC)  
DADC Static Air Temperature  
 ADCTAT (degC)  
DADC Total Air Temperature

Potential Temperature  
 THETA (K)  
Potential Temperature  
 THETAE (K)  
Equivalent Potential Temperature  
 THETAV (K)  
Virtual Potential Temperature

Hygrometers  
 BCRYO (volts)  
CR-2 Hygrometer Balance  
 CRYO (degC)  
CR-2 Hygrometer  
 CRYOC (degC)  
CR-2 Hygrometer, corrected  
 PCRYO (mb)  
CR-2 Hygrometer Pressure

Humidity  
 RHODL (g/m3)  
Absolute Humidity, T-Electric Left  
 RHODR (g/m3)  
Absolute Humidity, T-Electric Right  
 RHUM (%)  
Relative Humidity  
*50 me > 100 %*

Mixing Ratio  
 MR (g/kg)  
Mixing Ratio, T-Electric  
 EDPC (mb)  
Ambient Water Vapor Pressure  
Ambient Water Vapor Pressure, Reference

Pg.1 - Alt, Pitch, Roll, Hdg, Trk, DA  
Pg.2 - Lat, Lon, GPS...  
Pg.3 - Temps, DP, Humidity...  
Pg.4 - PQ, PS, Attack, SSlip, Winds...  
Pg.5 - GS, Vert Velocity, TAS, Mach

PSI spikes start ~ 0910 - 0919  
~1mb

Flight: 20100202N1Pressures  
*QC1 - QC4*

- Dynamic Pressure
- QC1C (mb)
- Corrected Dynamic Pressure, Left
- QC1M (mb)
- Left Raw Dynamic Pressure
- QC2C (mb)
- Corrected Dynamic Pressure, Right
- QC2M (mb)
- Right Raw Dynamic Pressure
- QCX (mb)
- Raw Dynamic Pressure, Reference
- QCXC (mb)
- Corrected Dynamic Pressure, Reference

- Attack (compare to pitch)
- AP1 (mb)
- Left Vertical Differential Pressure
- AP2 (mb)
- Right Vertical Differential Pressure
- DAP1 (mb)
- Left Raw Dynamic Attack Pressure
- DAP2 (mb)
- Right Raw Dynamic Attack Pressure
- ADCAOA (deg)
- Air Data Computer
- Attack Angle
- AKRD1 (deg)
- Attack Angle, Left Side
- AKRD2 (deg)
- Attack Angle, Right Side
- ATTACK (deg)**
- Attack Angle, Reference

Note: Attack and Sideslip often compare with each other, so it's better to keep them to compare

- Static Pressures
- PS1C (mb)
- Corrected Static Pressure, Top Fuselage
- PS1M (mb)
- Raw Static Pressure, Top Fuselage
- PS2C (mb)
- Crrct'd Static Pressure, Bottom Fuselage
- PS2M (mb)
- Raw Static Pressure, Bottom Fuselage
- PSX (mb)
- Raw Static Pressure, Reference
- PSXC (mb)
- Corrected Static Pressure, Reference

- Sideslip (compare to roll)
- BP1 (mb)
- Top Horizontal Differential Pressure
- BP2 (mb)
- Bottom Horizontal Differential Pressure
- DBP1 (mb)
- Top Raw Dynamic Slip Pressure
- DBP2 (mb)
- Bottom Raw Dynamic Slip Pressure
- SSDF1 (deg)
- Sideslip Angle, Diff. Pressure, Top
- SSDF2 (deg)
- Sideslip Angle, Diff. Pressure, Bottom
- SSRD1 (deg)
- Sideslip Angle, Top
- SSRD2 (deg)
- Sideslip Angle, Bottom
- SSLIP (deg)
- Sideslip Angle, Reference

- Surface Pressure
- PSURF (mb)
- Calculated Surface Pressure

- Cabin Pressure
- PCAB (mb)
- Cabin Pressure

- Horizontal Wind Direction
- IWD (deg)
- Horizontal Wind Direction (IRS)
- IWD\_PITR (deg)
- Horizontal Wind Direction (IRS)
- WD (deg)
- Horizontal Wind Direction

Horizontal Wind Speed
<input checked="" type="checkbox"/> IWS (m/s)
Horizontal Wind Speed (IRS)
<input checked="" type="checkbox"/> IWS_PITR (m/s)
Horizontal Wind Speed (IRS)
<input checked="" type="checkbox"/> WS (m/s)
Horizontal Wind Speed
North/South Component
<input checked="" type="checkbox"/> VI (m/s)
Wind Vector, North Component
East/West Component
<input checked="" type="checkbox"/> UI (m/s)
Wind Vector, East Component

- Vertical Winds
- WI (m/s)
- Wind Vector, Vertical Gust Component

- UTAN/URAD Winds
- UX (m/s)
- Wind Vector, UTAN Longitudinal Component
- VY (m/s)
- Wind Vector, Lateral Component URAD

Flight: 20100202N1

Groundspeeds	Vertical Acceleration	Airspeeds
<input checked="" type="checkbox"/> GHGSF_SG1 (m/s)	<input checked="" type="checkbox"/> ACINS (m/s2)	<input checked="" type="checkbox"/> ADCCAS (m/s)
Honeywell GPS Ground Speed	Aircraft Vertical Acceleration	DADC Computed
<input checked="" type="checkbox"/> GHGSF_SG2 (m/s)	<input checked="" type="checkbox"/> ACINS_PITR (m/s2)	Airspeed
Honeywell GPS Ground Speed	Aircraft Vertical Acceleration	<input checked="" type="checkbox"/> IAS (Kts)
<input checked="" type="checkbox"/> GPGSPD (m/s)	<input checked="" type="checkbox"/> Acceleration	Aircraft Indicated
Collins GPS Ground Speed		<input checked="" type="checkbox"/> Airspeed
<input checked="" type="checkbox"/> GSF (m/s)	<input checked="" type="checkbox"/> GHVZI_SG1 (m/s)	<input checked="" type="checkbox"/> ADCTAS (m/s)
Inertial Ground Speed	Hnywll GPS Comp'd	DADC True Airspeed
<input checked="" type="checkbox"/> GSF_PITR (m/s)	aircraft Vert. Velocity	<input checked="" type="checkbox"/> TAS1 (m/s)
Inertial Ground Speed	<input checked="" type="checkbox"/> GHVZI_SG2 (m/s)	Aircraft True Airspeed
East/West Component	Hnywll GPS Comp'd	<input checked="" type="checkbox"/> TAS2 (m/s)
<input checked="" type="checkbox"/> GHVEW_SG1 (m/s)	aircraft Vert. Velocity	Aircraft True Airspeed
HoneyWell GPS Ground Speed Vector E/W	<input checked="" type="checkbox"/> GPVSPD (m/s)	#1
<input checked="" type="checkbox"/> GHVEW_SG2 (m/s)	ClIns GPS Comp'd	<input checked="" type="checkbox"/> TASHC (m/s)
HoneyWell GPS Ground Speed Vector E/W	Aircraft Vertical Velocity	Aircraft True Airspeed, Humidity Corrected
<input checked="" type="checkbox"/> GPVEW (m/s)	<input checked="" type="checkbox"/> VSPD (m/s)	<input checked="" type="checkbox"/> TASX (m/s)
Collins GPS Ground Speed Vector E/W	IRS-Computed Aircraft Vertical Velocity	Aircraft True Airspeed, Reference
<input checked="" type="checkbox"/> VEW (m/s)	<input checked="" type="checkbox"/> VSPD_PITR (m/s)	
Inertial Ground Speed Vector E/W	IRS-Computed Aircraft Vertical Velocity	
<input checked="" type="checkbox"/> VEW_PITR (m/s)	<input checked="" type="checkbox"/> WP3 (m/s)	Mach
Inertial Ground Speed Vector E/W	Damped Aircraft Vertical Velocity	<input checked="" type="checkbox"/> ADCMACH (none)
<input checked="" type="checkbox"/> XVEWC (m/s)	<input checked="" type="checkbox"/> WP3_PITR (m/s)	DADC Mach Number
GPS-Corrc'td Inertial Ground Spd Vector E/W	Damped Aircraft Vertical Velocity	<input checked="" type="checkbox"/> MACH (none)
North/South Component		Aircraft Mach Number
<input checked="" type="checkbox"/> GHVNS_SG1 (m/s)	<input checked="" type="checkbox"/> GPVNS (m/s)	<input checked="" type="checkbox"/> XMACH2 (none)
Hnywll GPS Grnd Spd Vector, Nrth/Stth Component	ClIns GPS Grnd Spd Vector, Nrth/Stth Component	Aircraft Mach Number Squared
<input checked="" type="checkbox"/> GHVNS_SG2 (m/s)	<input checked="" type="checkbox"/> VNS (m/s)	
Hnywll GPS Grnd Spd Vector, Nrth/Stth Component	Inertial Ground Speed Vector, North/South Component	
<input checked="" type="checkbox"/> XVNSC (m/s)	<input checked="" type="checkbox"/> VNS_PITR (m/s)	
GPS-Corrc'td Inertial Ground Spd Vector, North Component	Inertial Ground Speed Vector, North/South Component	

Pg.1 - Alt, Pitch, Roll, Hdg, Trk, DA  
Pg.2 - Lat, Lon, GPS...  
Pg.3 - Temps, DP, Humidity...  
Pg.4 - PQ, PS, Attack, SSlip, Winds...  
Pg.5 - GS, Vert Velocity, TAS, Mach

DSM	CHAN	U P D A T	DESCRIPTION	MANUF.	MODEL	SERIAL NUMBER	RANGE (V)	Update of Calibration: 05 Aug 2009		G	Vos	C1'	C2'
								C1	C2				
FWD	00		Left AOA AP (AP1)	Rosemount	1221F2VL7B1B	2299	+/- 10	0.0021	6.8842	1	10	0.0021	6.8842
FWD	01		Left AOA DAPM (DAP1)	Rosemount	1221F2AF8B1B	2312	-0 - 10	0.9327	34.4761	2	10	173.3132	17.2381
FWD	02		Right AOA AP (AP2)	Rosemount	1221F2VL7B1B	2309	+/- 10	-0.067	6.8901	1	0	-0.0670	6.8901
FWD	03		Right AOA DAPM (DAP2)	Rosemount	1221F2AF8B1B	2313	-0 - 10	-1.2127	34.4983	2	10	171.2788	17.2492
FWD	04		Top Slip DBPM (DBP1)	Rosemount	1221F2VL7B1B	2300	+/- 10	-0.1618	6.8935	1	0	-0.1618	6.8935
FWD	05		Top Slip DBPM (DBP2)	Rosemount	1221F2AF8B1B	2319	-0 - 10	-0.3327	34.4729	2	10	172.0118	17.2368
FWD	06		Bottom Slip BP (BP2)	Rosemount	1221F2VL7B1B	2310	+/- 10	0.0028	6.8869	1	0	0.0028	6.8869
FWD	07		Bottom Slip DBPM (DBPM2)	Rosemount	1221F2AF8B1B	2318	-0 - 10	-1.9627	34.4847	2	10	170.4608	17.2424
FWD	08		Left Dewpoint (DPL)	EdgeTech	137-C3 Ext. Range	1685 / 018269	0 - 5	-100.24	30.074	4	10	-25.055	7.5185
FWD	09		Right Dewpoint (DPR)	EdgeTech	137-C3 Ext. Range	1686 / 018268	0 - 5	-100.37	30.041	4	10	-25.2675	7.5103
FWD	0a		Total Temp #3 (TT3)	Rosemount	1021J2AG w/ 510GB341E	A32355/0202	+/- 10	-0.1575	6.9931	-1	0	-0.1575	6.9931
FWD	0b		Total Temp #2 (TT2)	Rosemount	102C12AZ w/ 510GB343E	A20245/0199	+/- 10			1	0	0.0000	0.0000
FWD	0c		Total Temp #4 (TT4)	Rosemount	102CP2AF w/ 510GB341E	A6786 / 0141	+/- 10	0.0542	7.0261	1	0	0.0542	7.0261
FWD	0d		Total Temp #1 (TT1)	Rosemount	102CP2AF w/ 510GB341E	A18367/0140	+/- 10	0.2124	7.0005	1	0	0.2124	7.0005
FWD	0e		Static Pressure #1 (PS1M) (QC1M)	Rosemount	1281AF2B1B	588	-0 - 10	-0.5869	108.3262	2	10	541.0441	54.1631
FWD	0f		Dynamic Pressure #1	Rosemount	1281AF2B1B	588	-0 - 10	-0.0815	33.8826	2	10	169.3315	16.9413
FWD	10		Static Pressure #2 (PS2M)	Rosemount	1281AF2B1B	826	-0 - 10	-2.4031	108.3794	2	10	539.4939	54.1897
FWD	11		Dynamic Pressure #2 (QC2M)	Rosemount	1281AF2B1B	826	-0 - 10	-0.3861	33.8788	2	10	169.0079	16.9394
FWD	12		Cr-2 Hygrometer	Buck	CR-2	207	-0 - 10	-1.50	20	2	10	-50	10
FWD	13		Cr-2 Hygrometer Pressure	Buck	CR-2	207	0 - 10	100	100	2	10	600	50
FWD	14		Cr-2 Hygrometer Balance	Buck	CR-2	207	0 - 10	0	1	1	0	0.0000	1.0000
AFT	0		Cabin Pressure (PCAB)	Vaisala	PTB220	W3120002	0 - 5	500	120	4	10	800	30

\*Note: This table has been modified from the official assignment sheet.

$$C1' = ((C2' \times V_{os}) + C1)$$

$$C2' = C2 / G$$

$$\text{Units} = C1 + C2 * V_{adc}$$

# AOC GPS Dropwindsonde Log

Flight Director: Almeida

Storm/Track: TRACK 99

Pg \_\_\_\_ of \_\_\_\_

Drop + line

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)

000

1

094110192

090023

36 43 149 26

DARK

1012.3

01

R5

10 19.1

309

N0

15

093233

872

2

094110160

092005

37 09 153 16

1008.3

02

R5

10 24.3

295

N0

L5

102022

887

3

094110179

094058

37 32 157 12

998.4

03

R5

10 20.1

270

1032-18

896

4

094120086

100007

37 51 160 43

992.0

04

R5

10 20.1

270

105237

92857

5

094355034

162054

38 52 164 32

988.1

05

R5

10 18.5

202

104429

6

094120134

040007

39 45 67 40

996.2

06

R5

10 16.9

198

10 16.9

188

114446

904

7

094355002

110023

42 17 167 42

993.7

07

R5

10 9.8

027

114550

2

8

094255012

112022

44 52 167 42

997.5

08

R5

10 14.1

105

114651

8963

1

094255006

114030

46 38 165 47

997.7

07

R5

10 11.5

06

120830

948

10

094110178

120107

47 43 162 32

997.2

10

R5

10 14.7

77

123313

902

2

0941120097

122007

46 56 159 26

995.2

11

R5

10 14.0

71

124805

-

-

-

-

-

-

-

-

-

0548

2

094110195

124005

45 54 156 23

FAST FALL

-

-

-

9263

1

094112003

130012

44 45 153 34

1006.0

13

R5

10 12.4

324

132751

9653

1

0941355035

32140

43 28 150 45

1009.1

14

R5

10 2.0

316

134430

**LAST REPORT**

use DROP 02 in Training - remove winds @ 340mb

t/o wx: wd: var-~~N~~ becoming NW  
~0800Z ws: 4-6 kts

clouds: BKN ~~OVC 020~~ -035  
turb: poss. BR

Outbound: wd: W

ws: 100-150 kts

clouds: clear till ~150°E when we start  
turb: to drop. most cloudy on N leg +  
turn back to west  
ice: poss. in clouds?

Inbound: wd: SW

ws: 70-100-150

clouds: OVC till ~180-195 etc

turb: poss in cloud turb + ice  
ice:

landing wx: wd: NW

~1530Z ws: 5-10 kts

clouds: SCT 030

turb: ~~✓~~

local conditions: poss BR

Sea Salt: No

Volcanic Ash: No

## **NOAA G-IV flight request for Tuesday 02/02/2010**

**Radio Call Sign: NOAA49**

Planned take off: 02/02/2010 0800Z

Planned landing time: 02/02/2010 1600Z

**Route of flight:**

RJTY 35.75 139.35

KOGAR

TLE

CVC

1 36 54N 151 10E 36.9N 151.17E

2 37 44N 160 19E 37.73 160.32

3 39 40N 167 42E 39.67 167.7

4 45 51N 167 42E 45.85 167.7

5 47 46N 162 45E 47.77 162.75

6 46 35N 158 12E 46.58 158.2

*Stop* → 7 43 20N 150 28E 43.33 150.47

NIKON

JD

HATAR

8 RJTY 35.75 139.35

Planned Altitudes: FL390-450

> opnkx flight plan for crnt sq 1d config qm 02010 from rufy to rufy

X



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