

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

144 ft.

31
11
42

FLT ID: 20140221N1	From: PHNL	To: PANC
FLT #:	Blk In: 0535 Z	Lnd Time: 0531 Z
ETD: 2200z	Blk Out: 2140 Z	T/O Time: 2149 Z
ETE: 0545z 7+45	Total Blk: 7.9	Total Flt: 7.7
Sponsoring Org: ESRL	Program: PAR	Purpose: IVT enroute repo ANC

845p
LOCAL

AOC Flight Crew

Aircraft Commander: MOYERS	SSA: DEFEO
Co-Pilot: MANSOUR / MacINTYRE	AVAPS: RICHARDS SMITH
Navigator: /	Scientists:
Flight Eng: /	Scientists:
Flt Director: HENNING	Scientists:
SEB: GOLDSTEIN	Scientists:
Crew Chief: ROTTEVEE	Visitors: STA 1013.8

AUGUST
MOBILE
26-35

	A/C - Takeoff	Wx Station - Takeoff	A/C - Land	Wx Station - Land
Pressure	1012.5	2153 29.94 2158 30.82	1020.8	2158 30.82

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	17	Good: 17	Bad: 0	Sent: 17 (14 of 14 project)
AXBT		Good:	Bad:	Sent: + 3 AOC test

Remarks (Storm VDM Identifier, Mission ID, Fix Times)	Fix #	VDM Ob Num	Fix Time / SLP
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Storm Number Identifier (VDM): (ie: AL072012)			
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TCPOD/WSPOD Mission ID: WXXC ATMOSRIVERJ (ie: NOAA2 2418A SANDY)			
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Remarks:

1 28 159
2 30 147
3 50 160
4 53 152

845 show
FBO

HD

Sondes



N49RF ERROR SUMMARY

Atmos Rivers #10

PHNL > PANC 21 Feb 2014



Flight ID: 20140221N1

<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/2014/20140221N1

Notes:

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 0.6 to 0.8 degrees C and a period of about 120 seconds. TTM.4 was selected for Total Temperature in post processing. TTM.4 displays a much smaller oscillation (less than 0.1 deg C) with a much smaller period (about 10 – 20 seconds). TTM.1 is about a degree colder than the other total temps at cruise altitude.

	Takeoff (2149Z)	Landing (0531Z)
Aircraft Static Pressure	1012.5 mb	1020.8 mb
Corrected Tower Pressure	1013.8 mb	1021.1 mb

17 Dropsondes deployed (14 project inventory + 3 AOC IR test sonde). All were good and transmitted.

Flight ID: 20146221N1

HENNING

Flight Director:

Storm/Track:

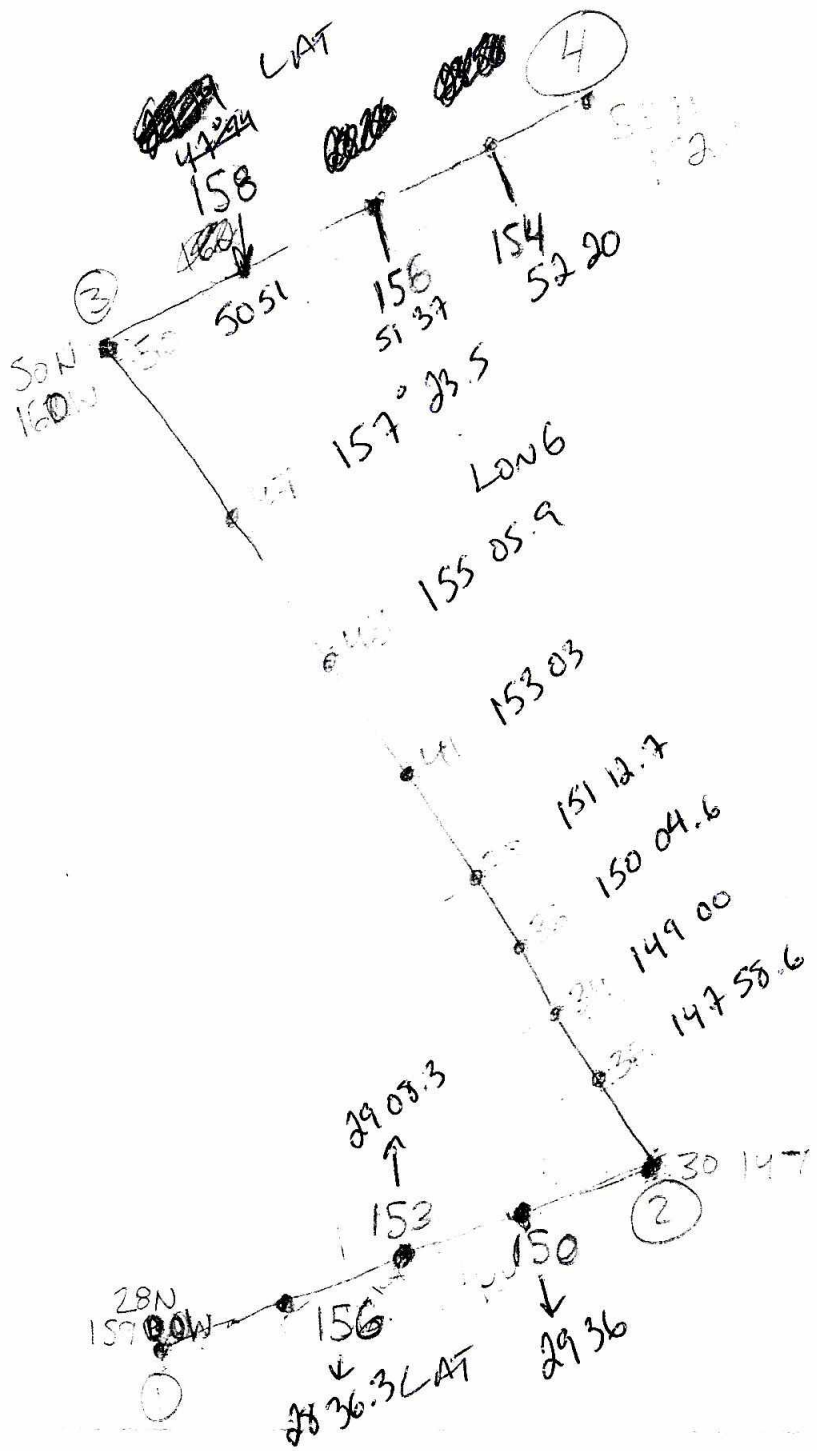
Mission ID: WXWC ATMOSPHER 5

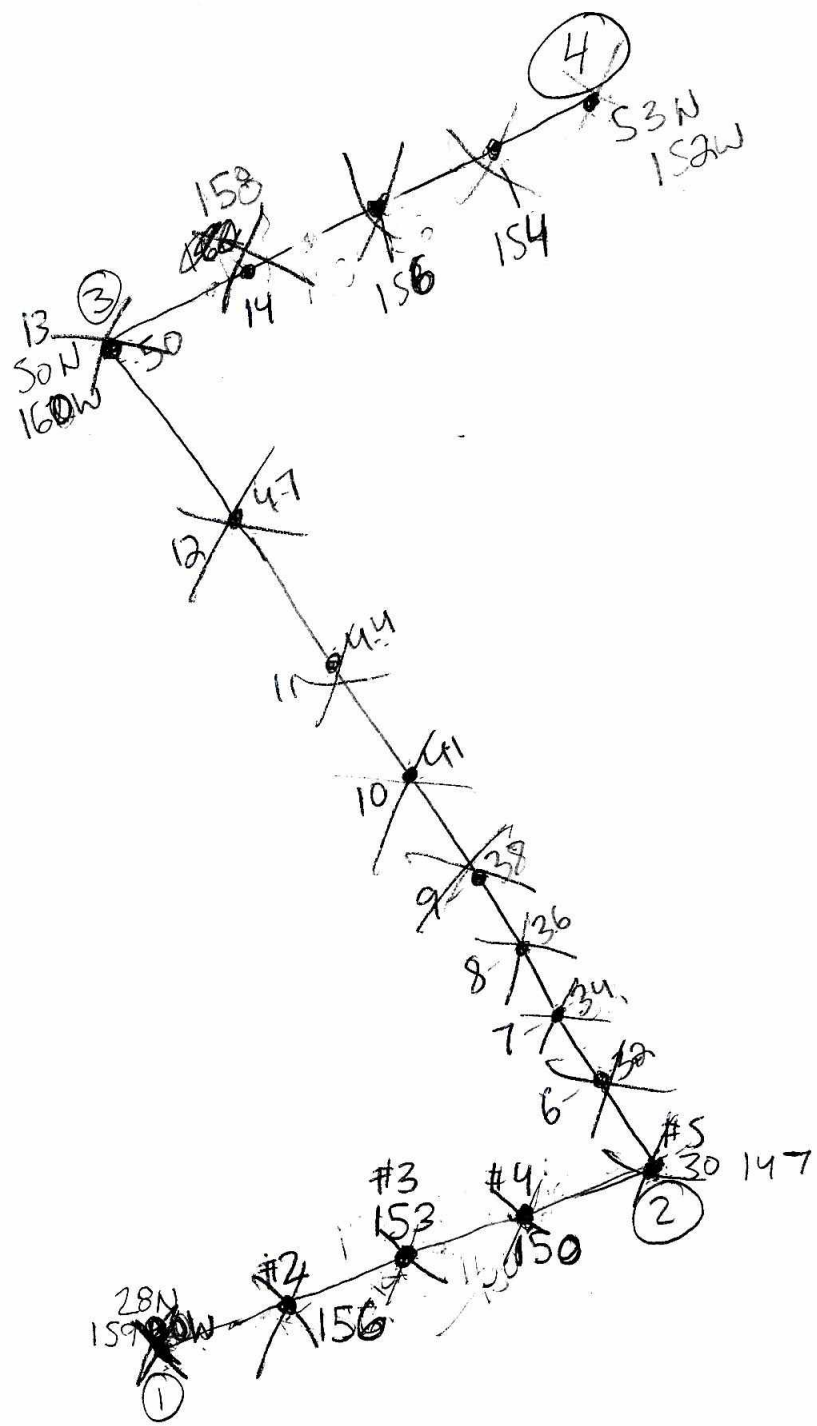
Pg. of

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	5131	2305+					1				✓
2	2	5069	2326+					2				✓
3	3	5132	2346					3				✓
4	4	5129	0006+					4				✓
5	5	5021	0026					5				✓
6	6	5007	0046	35	15 19.5°	974 mb		6				✓
7	7	5075	0104					7				✓
8	8	5133	0122					8				✓
9	9	5076	0140					9				✓
10	10	5136	0207+					10				✓
11	11	5039	0234					11				✓
12	12	5185	0300					12		170/18		✓
13	13	5140	0327					13		250/15		✓
14	14	5004	0340					14				✓
15	15	5038	0351	51.8	15.6			15		160/57 at	944 mb	✓
16	16	5125	0402	52.5	15.4			16		160/52	943 mb	✓
17	17	5128	0413	52.0	15.2.9			17				✓

NW
LAST
IR
IR
IR

390X
40.3F
46066

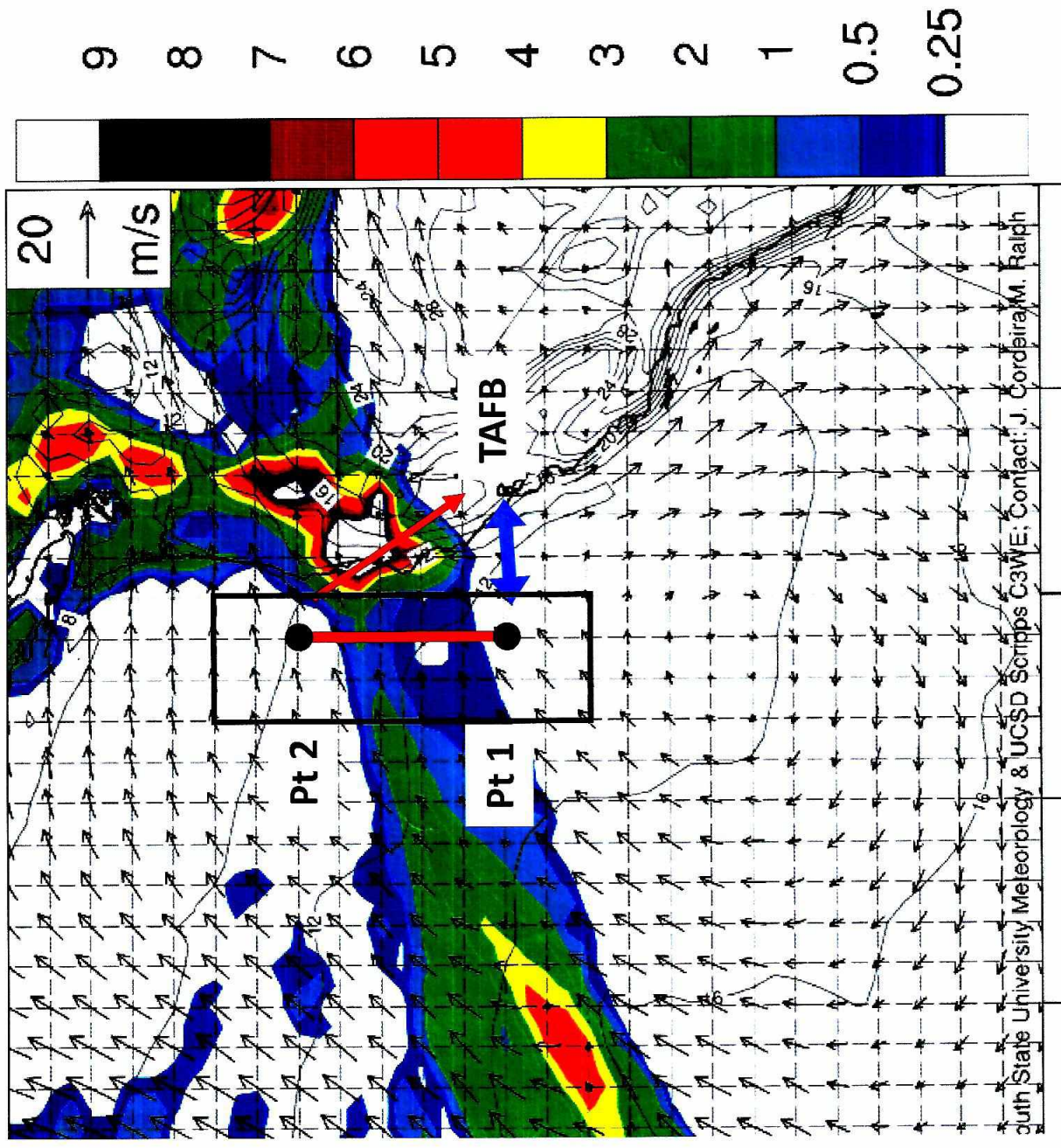




P GFS Precip Rate (mm/3h), 10-m Wind, and .995 Sigma Theta (C)

zed 12Z Thu 02/13/14; Valid 21Z Fri 02/14/14

F+33h



NOAA • AOC • SED

N49RF AVAPS DROP LOG

Lead Tech: Gabe Defeo

Project: Atmospheric Rivers 2014Mission: AR-10Flight ID: 21140221N7Take Off: 2149Z

Landing: _____

Flt Dir: Hemming

Launcher S/N: _____

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Operator	Charge \$\$ To	Comments	Good ?
1	112825131	1	A	2305	TMR	PAR		✓
2	112615069	2	Ø	2326				✓
3	112825132	3	Ø	2346				✓
4	112825129	4	A	ØØØ6				✓
5	114325021	1	-0.4	ØØ26				✓
6	114425007	2	Ø	ØØ46				✓
7	132025075	3	Ø	Ø104				✓
8	112815133	4	Ø	Ø122				✓
9	112615076	1	Ø	Ø140				✓
10	112825136	2	Ø	Ø208				✓
11	114335039	3	Ø	Ø234				✓
12	123125185	4	.5	Ø300				✓
13	112815140	1	Ø	Ø527			AirTemp Drop out	✓
14	123315004	2	Ø	Ø340				✓
15	123315028	3	Ø	Ø351		AOC	IR Sensor (Big) - D	✓
16	123325125	4	Ø	Ø402		AOC	IR-Sensor (Big) B	✓
17	123315128	1	Ø	Ø413		AOC	IR-Sensor (Short) G	
18								
19								
20	51.83N 156.07W							
21	52.50N 154.04W							
22	53.14N 152.03W							
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								

6.32 278.56
6.41
5.87 279.04
5.89
6.14 277.30
4.15

IR-Sondes Kept Dropping GPS Data
resulting in weak winds during
parts of the Drop.

02/21/2014, 21:19:11-29:35:25

ATMOSPHERIC RIVERS MISSION #10
TRANSIT HAWAII TO ALASKA

