

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

FLT ID: 20131029H1	From: PAEI	To: PAEI
FLT #:	Blk In: 0140 Z	Lnd Time: 0134 Z
ETD: 1730 Z	Blk Out: 1718 Z	T/O Time: 1727 Z
ETE: 8+00	Total Blk: 8.4	Total Flt: 8.1
Sponsoring Org: PMEL	Program: PAX (Arctic Flux)	Purpose: Ice Transition Zone

AOC Flight Crew

Aircraft Commander: NELSON	SSA: HILL
Co-Pilot: DIDIER / Jeff MILLER (USN)	AVAPS: RICHARD S SETH DANIELSON (Alaska)
Navigator: GALLAGHER	Scientists: James OVERLAND (PMEL)
Flight Eng: DABBY / CHRIS RYAN (USN)	Scientists: Nick BOND (Univ of Wash)
Flt Director: HENNING	Scientists: Kevin WOOD (Univ of Wash)
SEB: OLNEY	Scientists: Jonathan WHITEFIELD (Univ of Alaska)
Crew Chief:	Visitors: Lindsay Tardif-Huber / Scotty Berg / SSgt LaSharon Hodge (USAF)

	A/C - Takeoff	Wx Station - Takeoff	A/C - Land	Wx Station - Land
Pressure	#2 976.6	STA (977.1)	#2 978.2	STA (980.0)

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

Dropsondes	5	Good: 5	Bad: 0	Sent: 5
AXBT	3	Good: 3	Bad: 0	Sent: 3

List other data sources in Remarks section

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)

TCPOD/WSPOD Mission ID: WXWXC ARCTICFLX13D
(ie: NOAA2 2418A SANDY)

Remarks:

RTDP pcab t/o 975.8 t/o PABR
 1558z 29.40
 1658z 29.42 1758 29.43
 land
 2358z 29.51
 0058z 29.51 0158 29.51

um

PLAN
TAF
SIGWX
GOES
Skew T
Sounding
Ready BL
ICE PDF
ICE SAT
SALT
ASH



N43RF ERROR SUMMARY ARCTIC FLUX #4 PAEI - PAEI



Flight ID: 20131029H1

Sensor or system	Number or Name
INE (for wind derivation)	INE1
Accelerometer	AccZfilterI-GPS.1
Temperature Probe	TTM.1
Dew Point Probe	TDM.2X (Edgetech)
Altitude (for vertical wind)	AltGPS.3 (NOVATEL)
Static Pressure	PSM.2
Dynamic Pressure	PQM.2
Project Directory	/acdata/2013/MET/20131029H1

Notes:

After takeoff, during climb out from Eielson AFB through initial level off at 22K, there were numerous long gaps in the NOVATEL (AltGPS.3) altitude data but none occurred once the aircraft had leveled off at 17:53z enroute to the overwater portion of the mission.

Dewpoint sensor #2 (TDM.2 Edgetech) performed very well during the low altitude portion of the mission. During the high altitude transit portions to and from Eielson AFB, along with a portion of the science mission at 22K dropping sondes over the Chukchi Sea, TDM.2 was too warm so values for TDM.1 (the Buck) were substituted from 17:27z to 20:01z and then from 00:02z to 01:24z in post processing. The TDL (TDM.3) dewpoint sensor trended with the others but was too cold beginning at around 17:40z for the remainder of the mission.

All other instruments worked optimally during the flight.

Novatel (AltGPS.3) altimeter output was selected for post-flight processing.

Takeoff (1727Z) Landing (0134Z)

Aircraft Static Pressure	976.6 mb	978.2 mb
Corrected Tower Pressure	977.1 mb	980.0 mb

5 dropsondes and 3AXBT were deployed. All were good and transmitted.

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

NOAA • AOC • SED N42RF AVAPS DROP LOG

Lead Tech: Joe Bosco

Project: Hurricane 2013 Mission: ARCTIC FLUX

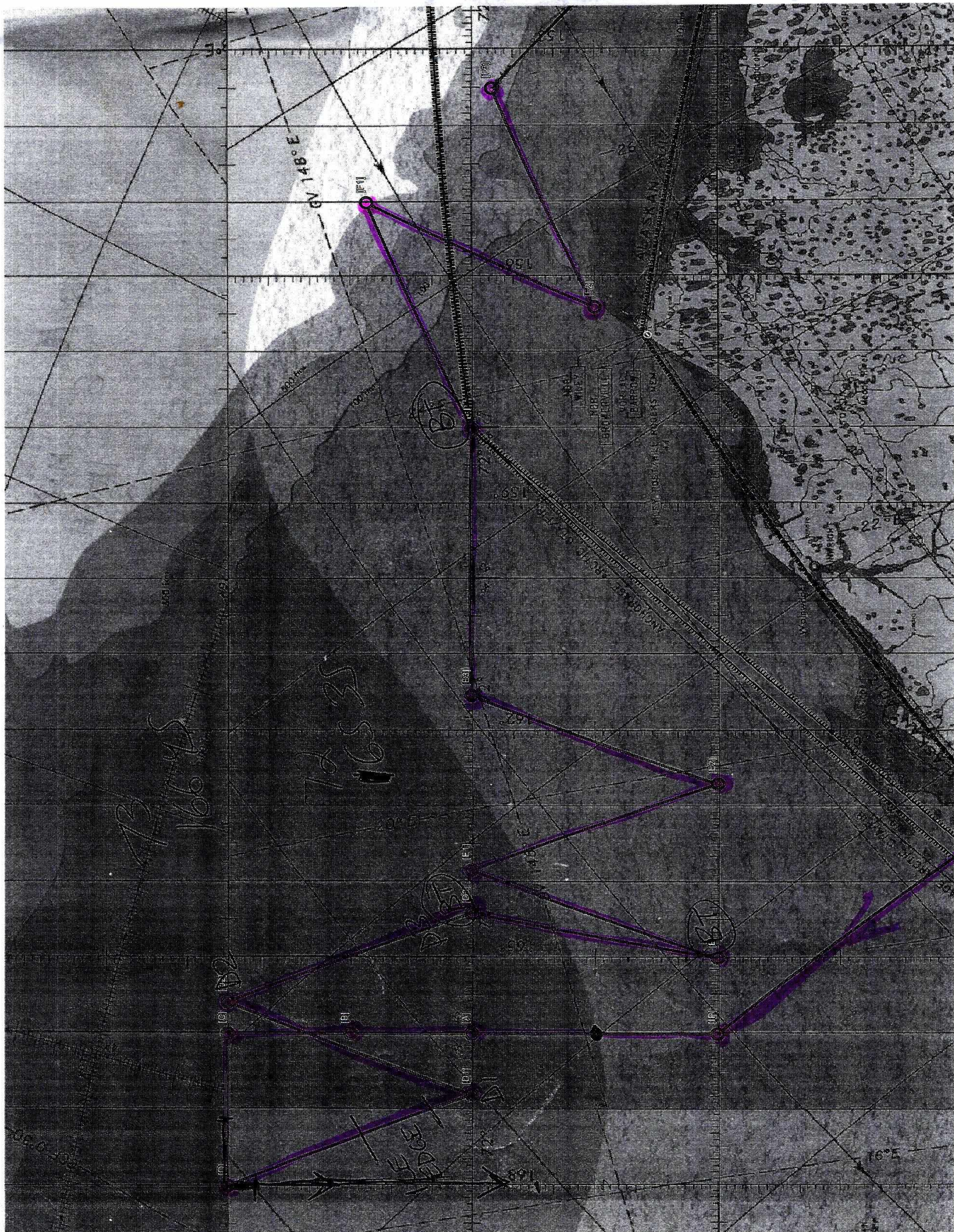
Flight ID: 20131029A1

Take Off: _____

Landing: _____

Flt Dir: HENRIE

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Operator	Charge \$\$ To	Comments	Good ?
1	103125404	1	0	1928	OWNEY	PAX		✓
2	103125191	2	0	1934				✓
3	103125186	3	0	1939			LANDED ON ICE	✓
4	103125186	4	0	1945				✓
5	103125189	5	0	1950				✓
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Arctic Flux Flight 4 Profile

Summary

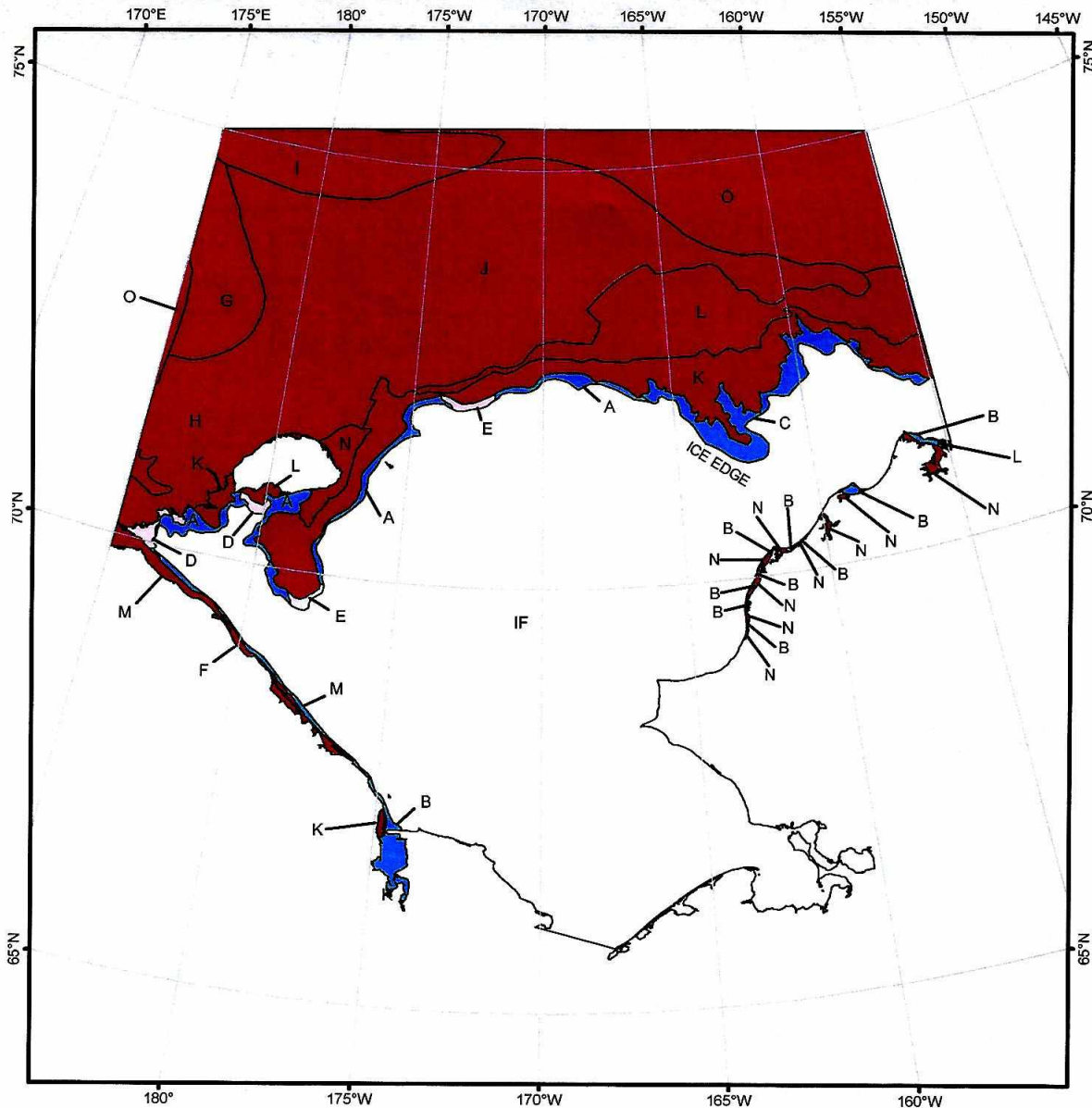
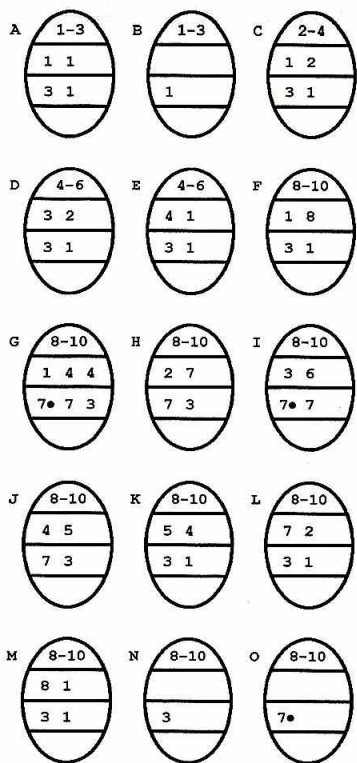
This flight will be a BL-Marginal Ice Zone (MIZ) survey, primarily focused on timed transects from 168 W to ~160 W. There are three groups of 3 crossings.

Waypoints and deployments

IP	71 00 N – 166 00 W	Dropsonde 20,000 feet
A	72 00 N – 166 00 W	Dropsonde
B	72 30 N – 166 00 W	Dropsonde
C	73 00 N – 166 00 W	Dropsonde
		Ferry to Delta 300-1000 (below cloud)
D	73 00 N – 168 00 W	Descend 200, start <u>Survey 1</u> on course 160T 200 6 min / climb 500 fpm / 3500 6 min CC 020T Descend 500 fpm / 200 6 min / climb 500 fpm CC 160T 3500 6 min / descend / 200 6 min AXBT Ferry to Echo at 300
E	71 00 N – 165 00 W	Start <u>Survey 2</u> on 020T AXBT 200 6 min / climb 500 fpm / 3500 6 min CC 160T Descend 500 fpm / 200 6 min [AXBT] / climb 500 CC 020T 3500 6 min / descend 500 fpm / 200 6 min Ferry to Foxtrot at 300
F	72 00 N – 158 00 W	Start <u>Survey 3</u> on 065T AXBT 200 6 min / climb 500 fpm / 3500 6 min CC 205T Descend 500 fpm / 200 6 min / climb 500 fpm CC 065T 3500 6 min / descend 500 fpm / 200 6 min
END		

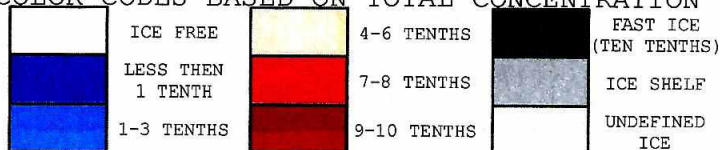
Note: each leg is ~60 miles at 200 kts and takes about one hour

2249
 2255
 F1 72 26 18500
 F2 71 30 15624
 F3 71 55 15330



IF = ICE FREE

COLOR CODES BASED ON TOTAL CONCENTRATION



ICE ANALYSIS Chukchi Sea NATIONAL/NAVAL ICE CENTER Analysis Week 24 Oct 2013

Data Sources Date
 RADARSAT.....22 - 24 Oct
 MODIS.....22 - 23 Oct
 Analyst: Jason Holmes (U/I)
 Analyst: William Walter

UNCLASSIFIED

1

FIX TYPES
(G) - GPS (I) - INS (R) - RADIO (V) - VISUAL (C) - CELESTIAL (D) - DR

FIX TYPES
(G) - GPS (I) - INS (R) - RADIO (V) - VISUAL (C) - CELESTIAL (D) - DR

[illegible]