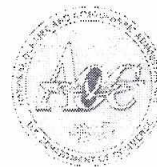




NOAA P-3 N42RF

SALEX Helene



Flight ID: 060918H

Sensor or system

INE
Accelerometer
Temperature Probe
Dew Point Probe
Altitude (for vertical wind)
Static Pressure
Dynamic Pressure
Time Source
Constants File

Number or Name

1
1
1
1 (General Eastern)
Radar Altimeter 159
Rosemount Fuselage
Rosemount Fuselage 1281
Micro 99
CO2062.com

Notes:

There were several time/data gaps during this flight which occurred from 145639Z-145650Z, 145716Z-145730Z, 151504Z-151520Z, 152741Z-152750Z, 165046Z-165100Z, 165424Z-165430Z, many gaps between 165430Z and 172911Z, 172911Z-172921Z, 172849Z-172930Z, 173001Z-173010Z, 173023Z-173050Z, 173111Z-173130Z, 180811Z-180830Z, and 184811Z-184830Z.

The King liquid water sensor was inoperative throughout the flight.

Altitude from inertial one and two were both inoperative throughout the entire flight.

Temperature and dewpoint values from sensor number 3 are also erroneous.

From takeoff through 132120Z and from 221300Z-221500Z, data from radar altimeter 232 was substituted into radar altimeter 159.

Data from dewpoint sensor number 2 was substituted into sensor number 1 from 132944Z-145040Z and from 212958Z-221500Z.

Dynamic pressure from the radome is unrepresentative from 164301Z-172530Z.

There were numerous times during the flight where the dewpoint temperature exceeded ambient temperature resulting in RH>100%. This was likely due to rain, 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 made to the data at 164340Z, 195705Z, 195134Z, and from 182415-182800Z. These corrections were made to bring the relative humidity values down below 120%.

Otherwise, all sensors worked optimally during this flight.

SPECIAL NOTE!!! Locations 80, 81 and 82 of record five on the standard tape contain vertical ground, vertical air and vertical speeds, respectively, computed using Dave Jorgensen's vertical wind algorithm.
It is recommended that these values be used for vertical wind analysis.

	Takeoff	Landing
Aircraft Static Pressure	1009.6 mb	1007.7 mb
Corrected Tower Pressure	1008.7 mb	1006.7 mb
Flight Director:	Martin Mayeaux (813) 828-3310 ext. 3086	

U.S. Dept. of Commerce / NMAO / NOAA / Aircraft Operations Center

Fit ID: 060918H	From: TBPB	To: TBPB
Fit No: 06-064	Blk In: 2216 z	Time On: 2212 z
ETD: 1330 z	Blk Out: 1310 z	Time Off: 1319 z
ETE: 9 + 30	Blk Time: 9 + 06 (9.1) Hrs	Fit Time: 8 + 53 (8.9) Hrs
Sponsoring Org: HRD	Program: Salex	Purpose: Helene

Aircraft Command

Aircraft Commander:	Strong	Data System:	McMillan
Co-Pilot:	Giramonte	AVAPS:	Rasco
Navigator:	Gallagher / Bishop	System Eng:	
Flight Eng:	Bast / Kippel	A A:	
Flight Director:	Mayeaux	A A:	
Avionics:	Olney	Crew Chief:	

Participating Scientists / Visitors	
1	
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100	

Name (Last, First)	Activity on Aircraft	Affiliation
Dunion, J	PI	HRD
Rogers, R	Sci	HRD
Leighton, P	Sci	HRD
Chang, P	Sci	Nesdis
Esteban, D	Sci	SPI
Jelenak, Z	Sci	Nesdis
Chu, T	Sci	UMASS

Remarks (Storm Name, Mission ID, Recco Times, Fix Times)

Recco Times

Form Name: Helene

14572 -
GPS acting
up

Session ID: Noaaz Helene⁰²

penetration number and time

1 fix first out

Fix #	Fix Time
1	10
2	15
3	20
4	25
5	30
6	35
7	40
8	45
9	50
10	55
11	60
12	65
13	70
14	75
15	80
16	85
17	90
18	95
19	100
20	105
21	110
22	115
23	120
24	125
25	130
26	135
27	140
28	145
29	150
30	155
31	160
32	165
33	170
34	175
35	180
36	185
37	190
38	195
39	200
40	205
41	210
42	215
43	220
44	225
45	230
46	235
47	240
48	245
49	250
50	255
51	260
52	265
53	270
54	275
55	280
56	285
57	290
58	295
59	300
60	305
61	310
62	315
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67	340
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71	360
72	365
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74	375
75	380
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77	390
78	395
79	400
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81	410
82	415
83	420
84	425
85	430
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90	455
91	460
92	465
93	470
94	475
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103	520
104	525
105	530
106	535
107	540
108	545
109	550
110	555
111	560
112	565
113	570
114	575
115	580
116	585
117	590
118	595
119	600
120	605
121	610
122	615
123	620
124	625
125	630
126	635
127	640
128	645
129	650
130	655
131	660
132	665
133	670
134	675
135	680
136	685
137	690
138	695
139	700
140	705
141	710
142	715
143	720
144	725
145	730
146	735
147	740
148	745
149	750
150	755
151	760
152	765
153	770
154	775
155	780
156	785
157	790
158	795
159	800
160	805
161	810
162	815
163	820
164	825
165	830
166	835
167	840
168	

5 16197 2329
5016

23° 38' 50" 31
18008

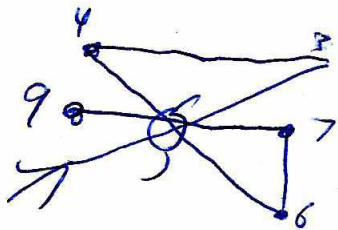
23 45" 50' 43"
1914 Z

U.S. Dept. of Commerce / NMAO / NOAA / Aircraft Operations Center

Flight ID: 060918H		Time Off: 1319 Z		Time On: 2212 Z	
A/C: Takeoff		Wx Station: Takeoff		A/C: Land	
Pressure: 1009.6 mb		1815 mb		1007.7 mb	
A/C: Land		Wx Station: Land		1013 29.92 mb	
ATIS		Time			
Takeoff		1210 Z			
Land		2100 Z			
		Observation			
		NAKT FEW020 BKN030 29/24 Q1015			
		17007KT SCT014 34/24 Q1013			
		Number			
		Data Disposition / Date / Quality			
Flight Level Tapes					
Radar Tapes					
Cloud Physics Tapes / CDs					
Video Tapes					
Dropsondes		30			
		Good: 24 Bad: 6 6 BTS 1 bad			
AXBT		6			
AXCP		1 bad			
AXCTD					

Remarks:

IP 20.5 53.2 All 20000 feet 1304-5929



**Shut down Asdl due to errors
LF Radar had major problems**

1819Z-1940Z

VFR Arrived

**To Barb.
no IFR**

NOAA · AOC · SED
N42RF AVAPS DROP LOG

Project: SALEX

Mission: HELENE

Flight ID: 0609184

Take Off:

Landing:

Flt Dir:

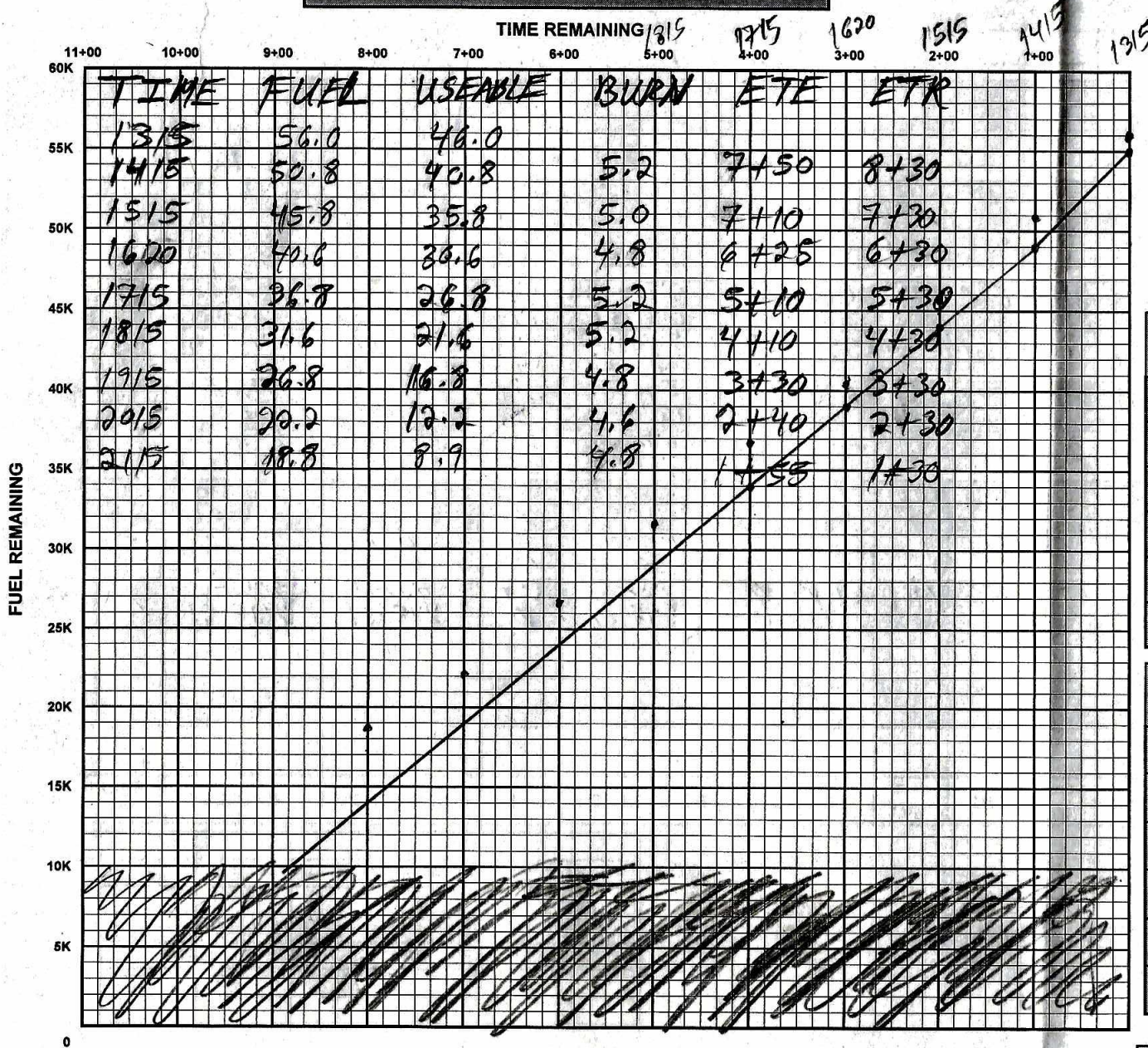
Launcher S/N:

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Wind s Time	\$\$	DropT ech	Comments	Good ✓	
1	053416275	1	Q	1423	5		CR	NOLAUNCH DET		HRD
2	053726008	2	Q	1436	5				✓	HRD
3	053416373	1	Q	1451	5				✓	HRD
4	053636018	1	Q	1509	5				✓	HRD
5	054046075	1	Q	1527	6				✓	HRD
6	053716286	2	Q	1536	5				✓	HRD
7	053626069	1	Q	1553	5				✓	HRD
8	054046081	2	Q	1602	5				✓	HRD
9	054046066	1	Q	1620	0			CENTER (w/BT)	✓	HRD
10	053716020	2	0.5	1625	15		✓	EYEWALL	✓	HRD
11	054046076	1	0	1648	10		B.O.	BT	✓	HRD
12	054046084	4	0	1707	—			BT FAST FALL		HRD
13	053716018	1	0	1710	10			WEAK TELRM	✓	HRD
14	053626171	1	Q	1724				FAST FALL SCREEN		HRD
15	053716014	3	0	1728	10			WEAK		HRD
16	054046079	1	0	1733				WEAK BT		HRD
17	054046083	4	0	1740	15				✓	HRD
18	053716017	1	0	1811				FAST FALL SCREEN		HRD
19	053716021	2	0	1816	5				✓	HRD
20	053716016	4	+4	1830	25				✓	HRD
21	053716012	1	0	1841	5				✓	HRD
22	053716019	4	0	1848	5			BT	✓	HRD
23	054046067	1	0	1901	5		✓		✓	HRD
24	054046080	4	0	1914	5				✓	HRD
25	054046072	1	0	1930	5				✓	HRD
26	053626028	4	+3	1944			✓		✓	HRD
27	053716022	1	0	1958					✓	HRD
28	054135135	4	0	2008	5				✓	HRD
29	053626029	1	0	2017	5				✓	HRD
30	053626070	1	0	2041	5		✓		✓	HRD

057716286 NOT IN DROP SONDE INV. LOG - CHANGED ... 287 to ... 286

[illegible]

RANGE CONTROL GRAPH



DISTANCE REMAINING

$$ETP = .5(TOTAL DISTANCE \times OUTBOUND WIND FACTOR)$$

WIND FACTOR		
WINDSPEED	HEADWIND	TAILWIND
10	1.03	.97
20	1.06	.94
30	1.10	.92
40	1.14	.89
50	1.18	.87
60	1.22	.85

ENROUTE FUEL	
ENROUTE TIME	9+30
ENROUTE FUEL (5K 5K 4.5K RULE)	44.8
RESERVE AT DESTINATION	10.0
REQUIRED RAMP	54.8
ACTUAL RAMP FUEL	56.0 1315

TACTICAL (OFFSTA TO DESTINATION)		
	4 ENG	3 ENG
DISTANCE (OFFSTA TO DEST)		
ENROUTE TIME (OFFSTA TO DEST)		
BURN RATE (LBS/HR)	4500	5500
ENROUTE FUEL REQUIRED		
RESERVE AT DESTINATION		
FUEL AT OFFSTA		

POINT OF SAFE RETURN		
	4 ENG	3 ENG
ETP DISTANCE (TO DEPARTURE)		
ENROUTE TIME (TO DEPARTURE)		
BURN RATE (LBS/HR)	4500	5500
FUEL REQUIRED		
RESERVE AT DEPARTURE		
PSR FUEL		

PRESS ALT	200	250	300	350
10,000	1.0	1.0	.99	.99
20,000	.99	.98	.97	.97
30,000	.97	.96	.95	.94
40,000	.96	.94	.92	.90

TRUE AIRSPEED CROSS-CHECK							
TIME	IAS	PRESS ALT	"F" FACTOR	EAS	OAT	TAS	ITAS
1346	310	15.0	X	X	+10	277	247 (272)

11 → 2
31.5 → 7

CEX - TRUE BEARING METHOD			
COMPASS TYPE	INS1	INS2	WET
MCH (READING)			
MTH (SEXTANT)			
CE			
VAR			
DEV			

CEX - ERB METHOD			
COMPASS TYPE	INS1	INS2	WET
MERB (DIAL 000)			
+ ZN			
= MTH			
MCH (READING)			
CE			
VAR			
DEV			

CEX SIGHT	
GMT	
GHA	
CORR	
GHA	
LONG W E	
EXACT LHA	
LAT	
BODY	
DEC	
HC/D	
CORR	
HC	
Z	
ZN	

