



NOAA P-3 N42RF

SALEX Helene



Flight ID: 060920H

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

2

2

1

1 (General Eastern)

Radar Altimeter 159

Rosemount Fuselage

Rosemount Fuselage 1281

Micro 99

CO2062.con

Notes:

There were no time/data gaps during this flight.

The King liquid water sensor was inoperative throughout the flight.

The Johnson Williams Liquid Water Sensor was inoperative from takeoff through 154030Z.

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

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

Radome pressure ports froze up from 205401Z-212200Z.

Data from dewpoint sensor number 2 was substituted into sensor number 1 from 142641Z-143121Z, 141701Z-142103Z, and from 210401Z-215800Z.

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. No corrections were made to the data 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	1009.1 mb	1004.0 mb
Corrected Tower Pressure	1009.0 mb	1006.3 mb
Flight Director:	Martin Mayeaux (813) 828-3310 ext. 3086	

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

Flt ID: 060920H	From: TBPB	To: TBPB
Flt. No: 06-066	Blk In: 2324 Z	Time On: 2321 Z
ETD: 1400 Z	Blk Out: 1359 Z	Time Off: 1406 Z
ETE: 9+30	Blk Time: 9+25 (9.4) Hrs	Flt Time: 9+15 (9.3) Hrs
Sponsoring Org: HRD	Program: SALEX	Purpose: Helene

AOC Flight Crew

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

Participating Scientists / Visitors

Name (Last, First)	Activity on Aircraft	Affiliation
McFadden	PM	AOC
Dorian Rogers Black	PI	HRD
Rogers	Sci	HRD
Chang	Sci	Nesdis
Esteban	Sci	JPL
Telenak	Sci	Nesdis
Chen	Sci	UMass
Leighton	Sci	HRD

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

Recco Times

Storm Name: Helene

Lat Lon SLP E and POP ABC max flight, Papa

Mission ID: WXXXX Helene04

Penetration number and time

Fix # Fix Time

61717Z
2550'
5842'
62004Z
2612N
5653W

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Flight ID: 060920H

Time Off: 1406 Z

Time On: 2321 Z

A/C: Takeoff

Wx Station: Takeoff

A/C: Land

Wx Station: Land

Pressure

1009.1 mb

2998 mb

1004.0 mb

1012.92990 mb

ATIS

Time

Observation

Takeoff

2300Z

18004KT P65m 30/24 Q1015

Land

2100Z

VRB02KT SCT014 SCT032 29/24 Q1012

Number

Data Disposition / Date / Quality

Flight Level Tapes

Radar Tapes

Cloud Physics Tapes / CDs

Video Tapes

Dropsondes

27

Good: 26 Bad: 1

2 NHC 4 BT / bad

AXBT

AXCP

AXCTD

Remarks:

1300Z 18004KT P65m 30/24 Q1015

2216Z VRB P65m SCT014 SCT032 28/24 Q1012

NOAA · AOC · SED
N42RF AVAPS DROP LOG

Project : SALEX

Mission : HELENE

Flight ID : 060920H

Take Off :

Landing :

Flt Dir :

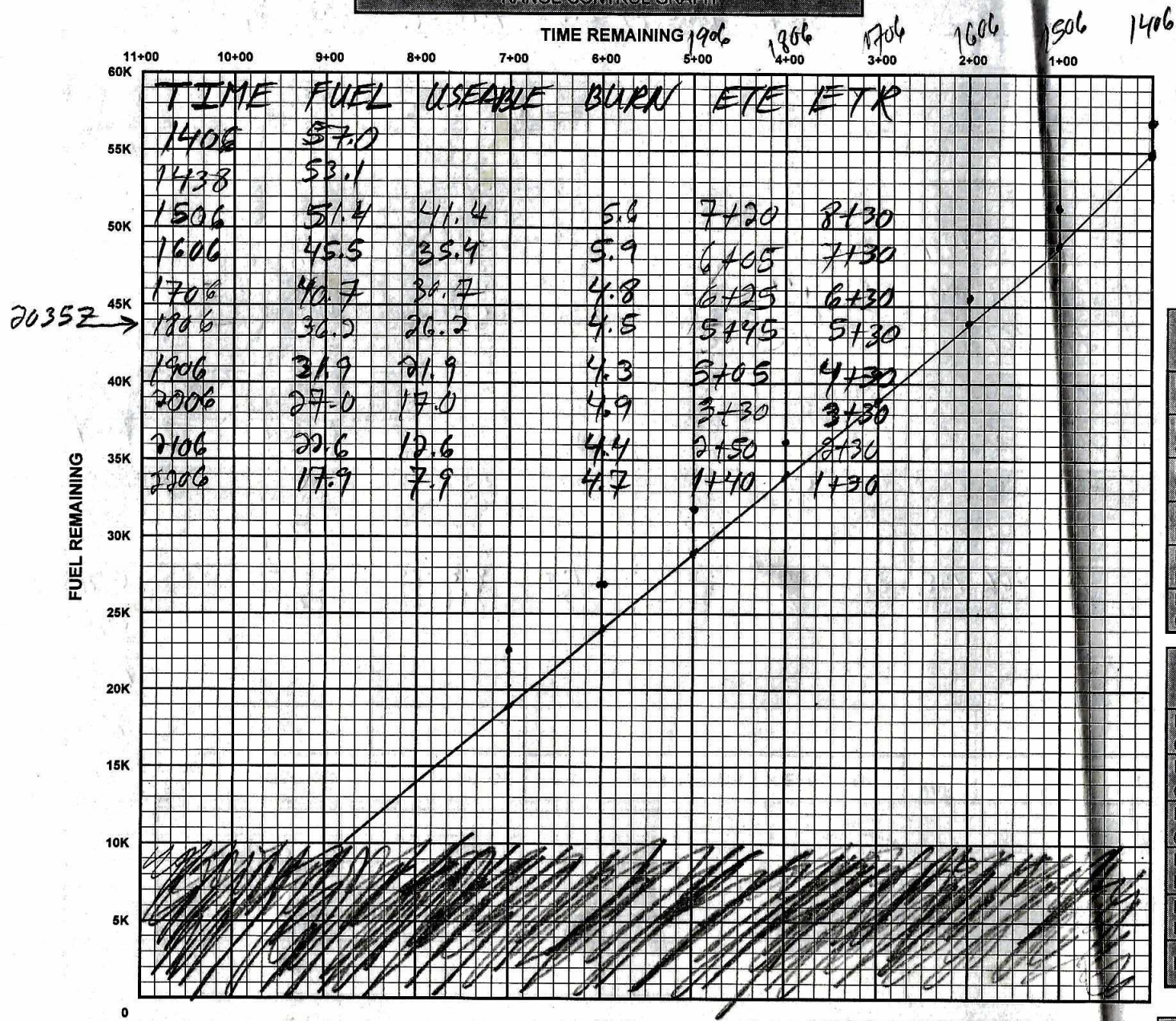
Launcher S/N:

Drop #	Sonde Serial #	Rcvr #	Press Offset	Launch Time	Wind s Time	\$\$	DropT ech	Comments	Good ✓
hcd 1	053716277	1	Q	1611	15		CR	LATE LAUNCH DET	✓
hcd 2	053626073	1	Q	1625	5				✓
hcd 3	053716282	1	Q	1640	5				✓
hcd 4	053716279	2	Q	1650	5				✓
hcd 5	053716278	1	Q	1658	5				✓
hcd 6	053716586	1	-3	1711	6			STATION	✓
hcd 7	053716485	2	Q	1717	6			CENTER (w/BT)	✓
hcd 8	053716283	1	Q	1733	10			STATION	✓
hcd 9	053626183	1	Q	1745	25			LATE LAUNCH DET/GPS FAIL	✓
hcd 10	053716284	1	Q	1803	5				✓
hcd 11	054556023	1	Q	1814	5				✓
hcd 12	053716497	2	Q	1817	5				✓
hcd 13	054556585	6	Q	1824	5				✓
hcd 14	054556578	2	Q	1833	5			w/BT	✓
hcd 15	054626152	3	Q	1843	5				✓
hcd 16	054556232	2	Q	1902	5			w/BT	✓
hcd 17	054626173	2	Q	1917	5				✓
hcd 18	054556429	2	Q	1935	10			w/BT	✓
hcd 19	054556588	1	Q	1950	5				✓
hcd 20	054556611	1	Q	2004	7			CENTER	✓
hcd 21	054556631	1	Q	2017	5				✓
hcd 22	054556635	2	Q	2026	5				✓
hcd 23	054626155	1	Q	2033	5				✓
hcd 24	054626174	2	Q	2038	5				✓
hcd 25	054626153	3	0	2042	5				✓
hcd 26	054556636	1	Q	2059	5				✓
hcd 27	054626314	1	Q	2112	5				✓
28									
29									

FLUDED CHUTE
ADJUSTED LAUNCH DET PIN

[illegible]

RANGE CONTROL GRAPH



DISTANCE REMAINING

ETP = .5(TOTAL DISTANCE x 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 (6K 5K 4.5K RULE)	44.8
RESERVE AT DESTINATION	10.0
REQUIRED RAMP	54.8
ACTUAL RAMP FUEL	57.0

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
1441	214	15.0	X	X	410	250	280 (274)
2249	225	10.0	X	X	420	272	245 (271)

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	
HO / D	
CORR	
HO	
Z	
ZN	

