

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

FLT ID: 050610 I	From: Kmcf	To: KTPA
Flt No: 05 -023	In: 0502Z	On: 0457 Z
ETD: 2130 Z	Out: 2204Z	Off: 2215Z
ETE: 8 +00	Blk Time: 6 + 58 (7.0) Hrs	Flt Time: 6 + 42 (6.7) Hrs
Sponsoring Org: NHC	Program: Hurricane Recco	Purpose: Arlene

AOC Flight Crew

Aircraft Commander: Teboest, R	Data System: Lynch
Co-Pilot: Nelson, m /	AVAPS: Fox, D
Navigator: Gallagher, T /	System Engineer:
Flight Eng: Bast, G /	AA:
Flight Director: Mayeaux / Parish	AA:
Avionics: San Souci	Crew Chief:

Participating Scientists / Visitors

Name (Last, First)	Activity on Aircraft	Affiliation
Habler, G	obs	AC
Oe Gouw	obs	AC

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

Storm Name: Arlene

Mission ID: 0701A

2356Z - Switched to RAB159 from 232
Pass buoy at

U.S. DEP'T OF COMMERCE / NMAO / NOAA / AIRCRAFT OPERATIONS CENTER

FLT ID: TIME OFF: Z TIME ON: 0457 Z

A/C - Takeoff

WX Station - Takeoff

A/C - Land

WX Station - Land

Pressure

1008.1

2981

ATIS - Takeoff

ATIS - Land

03053Z 11/12 G-18KT 105m few025 BKN100 25/23 A2980

Data Source

Number

Data Disposition / Date / Quality

Flight Level Tapes

Radar Tapes

Cloud Physics Tapes /
Cds

Video Tapes

Dropsondes

Good:

Bad:

Total:

AXBT

AXCP

AXCTD

SONOBUOY

REMARKS:

2150Z

24/23

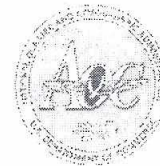
29.82 (1009.2)

106

060/14 G 20



NOAA P-3 N42RF T.S. Arlene SFMR Flight



Flight ID: I050610

<u>Sensor or system</u>	<u>Number or Name</u>
INE	2
Accelerometer	2
Temperature Probe	1
Dew Point Probe	1
Altitude (for vertical wind)	Radar Altitude 232
Static Pressure	Rosemount Fuselage
Dynamic Pressure	Rosemount Fuselage
Time Source	Micro 99
Constants File	CO3051.CON

Notes:

There were no data/time gaps during this flight

Neither the King nor the Johnson Williams Liquid Water probe were working during the flight.

Radar Altimeter 159 and 232 exhibited a spike at 0344Z due to a maneuver in pitch and roll. No edits were made to correct the data.

There were a few instances when the dewpoint temperature exceeded the ambient temperature resulting in a RH% above 100%. These times were during heavy rain events and were likely due to 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.

All other instruments worked optimally during the flight.

The aircraft INE positions were renavigated with respect to GPS.

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	NA	1008.1 mb
Corrected Tower Pressure	NA	1009.5 mb

Flight Director: Marty Mayeaux
Phone #: (813) 828-3310 ext. 3086

Flight ID: 050610I Arlene

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Form 413-50

[illegible]

Mission ARLENE PRICOFlt ID 050610 I-2SED Crew Lynch, Sam Souci, FOXPre-Flight 19:00Take-Off 22:15Landing 04:57

System				Pre-Flight	In-Flight	Post-Flight			
NAV	GPS	FM:		TL		LAT	Lon	GS	RE
	INE #1	Time On: <u>20:50</u>	Aligned to: <u>0</u>	TL		+9.1	-2.2	1	9
	INE #2	Time On: <u>20:50</u>	Aligned to: <u>0</u>	TL <u>1</u>		+1.9	-4.3	4	4
	Diff GPS			TL					
RADAR	MARS Data	Start	Stop	Ready?	HRD?	# DATs ? <u>2</u> Given To: <u>✓</u>			
	MARS	<u>22:31</u>		TL	Y <u>14</u>				
	MARS Data / Tape Status				LFRec	TARec	EOF's		
	MARS LU8	<u>Clear</u>		TL					
	MARS LU9	<u>Clear</u>		TL					
	RADAR R/T SN	Tail <u>N/L</u>	LF <u>10Z</u>	<u>TL</u>	Mod Switches <u>ON</u>	Mod Switches <u>OFF</u>			
PMS	Nose			<u>TL</u>		Power <u>OFF</u>			
	ETL DMT DAS			<u>NI</u>					
	NCAR FSSP	Ref VDC:	Covers	<u>NI</u>		Covers <u>ON</u>			
	NCAR PIP		Covers	<u>↓</u>		Covers <u>ON</u>			
TEMP	Cal High			Cal Low		Cal High		Cal Low	
	Temp #1	<u>30.6</u>	<u>-30.4</u>	TL		<u>+30.6</u>		<u>-30.2</u>	
	Temp #2			TL		Power <u>OFF</u>			
	Dewpoint	<u>#1</u>	<u>#2 (Vio)</u>	<u>#3 (TDL)</u>	TL		Power <u>OFF</u>		
PRES	Attack / Slip Angle <u>AP</u> <u>DP</u> <u>BP</u> <u>OP</u>			TL		Power <u>OFF</u>			
	Differential <u>P01</u> <u>P02</u> <u>P03</u> <u>P04</u>			TL		Power <u>OFF</u>			
	Absolute <u>P01</u> <u>P02</u> <u>P03</u>			TL		Power <u>OFF</u>			
FILT	Apr-159 SN: <u>106-024</u>			TL <u>4</u>		Power <u>OFF</u>			
	Apr-232 SN: <u>1761</u>			TL		Power <u>OFF</u>			
	Liquid Water <u>W</u> <u>K</u>			NI	28V WOW: <u>ON</u>	Power <u>OFF</u>			
	Radiometer <u>002</u> SST			TL	28V WOW: <u>ON</u>	Power <u>OFF</u>			
RAMS	RAMS Data			Start	Stop	Ready?	Errors 8:	Errors 9:	# DATs ? <u>2</u> Given To:
	CPU: <u>A</u> B	<u>22:01</u>	<u>05:03</u>	TL	<u>1</u>	<u>0</u>	Power <u>OFF</u>		
	RAMS Data / Tape Status				Slow Rec	Fast Rec	Disk Records: <u>2536</u>		
	RAMS LU8	<u>Clear</u>		TL	<u>2530</u>	<u>25355</u>			
	RAMS LU9	<u>Clear</u>		TL					
	Flight Director Laptop			TL			Power <u>OFF</u>		
	Network: Server1 <u>Set</u> 2 Switches								
	ASDL Mission #: <u>0701A</u> Name: <u>ARLENE</u>			TL	Freq: <u>30</u>	Block: <u>10</u>	Power <u>OFF</u>		
MISC	C.I. Printer			Start	Stop	Ready?	Paper Bin Stores	Given To: <u>MM</u>	
	PRATE: <u>30/10</u>	<u>22:00</u>		TL	0%	<u>25%</u>	50%	75%	100%
	Exterior Walk Around			Plugs	Covers	TL	Plugs		Covers
	SATCOM: W/S Inmarsat GlobalStar						Power <u>OFF</u>		
USER	AXBT Internal # Loaded: <u>20</u>			TL <u>(3)</u>		# Launched: <u>20</u>			
	AXBT External # Loaded: <u>0</u>			<u>-</u>	28V WOW	# Launched: <u>-</u>			
	AVAPS # On Board: <u>29</u>			<u>OFF</u>		# Dropped: <u>2</u>			
	Video Cameras			Start	Stop	Ready?	Cameras	Mode	# Tapes ? <u>0</u> Given To:
	VHS SVHS				N L R D	2 / 12	Lens Cap ? :		
	FCU			<u>A-B-12</u>	TL		UPS <u>OFF</u>		
USER	SFMR: <u>H</u> AOC			TL		Accelerometers			
	HRD Work Station			<u>NI</u>		#1 (2 G): <u>6205</u>			
	NASA SRA			<u>NI</u>		#2 (2.5 G): <u>6667</u>			
	ARL BAT Probe & SST			<u>NI</u>		#3 (3 G): <u>5967</u>			
	RSMAS Licor			<u>NI</u>		#4 (3.5 G): <u>2892</u>			
	AOML Teco Ozone			<u>NI</u>					
Chang Server			<u>NI</u>						

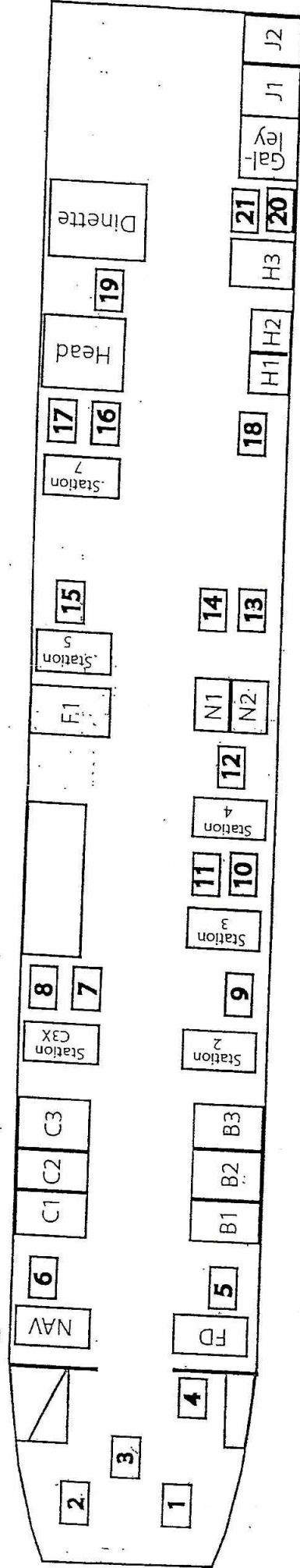
kept
to
check
later

Please Note any Discrepancies

[illegible]

NOAA AIRCRAFT OPERATIONS CENTER

Flight ID 050607



1. Tebeest, R

PILOT

2. Nelson, M

COPILOT

3. Bast, G

FLIGHT ENGINEER

4. Parrish, J

STATION 1

5. Mayeaux

FLIGHT DIRECTOR

6. Callagher

NAVIGATOR

7. Hubler, G

STATION C3X

8. Ozyoun, J

STATION C3X

9. _____

STATION 2

10. _____

STATION 3

11. _____

STATION 3

12. Lynch, T

STATION 4

13. _____

PROJECT SEAT

14. Fox

PROJECT SEAT

15. San Souci

STATION 5

16. _____

STATION 7

17. _____

STATION 7

18. _____

STATION 8

19. _____

DINETTE

20. _____

GALLEY

21. _____

GALLEY

DATE 06/11	SCHEDULED RX TIME 0400	AIRCRAFT NUMBER 43	FLIGHT DIRECTOR Mayeaux
WX MISSION IDENTIFIER NOAA3 0701A Arlene			OB NUMBER 11
VORTEX DATA MESSAGE			
A	11 10349 Z	DATE and TIME of FIX	
B	27 DEG 12 MIN N S	LATITUDE of FIX	
	86 DEG 25 MIN W E	LONGITUDE of FIX	
C	850 MB 1338 M	MINIMUM HEIGHT of STANDARD LEVEL	
D	49 KT	ESTIMATE of MAXIMUM SURFACE WIND OBSERVED	
E	300 DEG 30 NM	BEARING and RANGE FROM CENTER of MAXIMUM SURFACE WIND	
F	4 DEG 56 KT	MAXIMUM FLIGHT LEVEL WIND NEAR CENTER	
G	271 DEG 21 NM	BEARING and RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND	
H	989 MB	MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM FLIGHT LEVEL. IF EXTRAPOLATED, CLARIFY IN REMARKS.	
I	22 C / 1412 M	MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE OUTSIDE EYE	
J	23 C / 1404 M	MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE INSIDE EYE	
K	18 C / NA C	DEWPOINT TEMP / SEA SURFACE TEMP INSIDE EYE	
L	Poorly Def. red	EYE CHARACTER: Closed wall, poorly defined, open SW, etc.	
M	NA	EYE SHAPE/ORIENTATION/DIAMETER: Code eye shape as: C - Circular; CO - Concentric; E - Elliptical. Transmit orientation of the major axis in tens of degrees, i.e., 01-010 to 190; 17 - 170 to 350. Transmit diameter in nautical miles. Examples: C8= Circular eye 8 miles in diameter. E09/15/5=Elliptical eye, major axis 090-270, length of major axis 15 NM, length of minor axis 5 NM. CO8-14=Concentric eye, diameter inner eye 8 NM, outer eye 14 NM.	
N	1345/8	FIX DETERMINED BY / FIX LEVEL. FIX DETERMINED BY: 1-Penetration; 2-Radar; 3-Wind; 4-Pressure; 5-Temperature. FIX LEVEL (Indicate surface center if visible; indicate both surface and flight level centers ONLY when same): 0-Surface; 1-1500 ft; 9-925mb; 8-850mb; 7-700mb; 5-500mb; 4-400mb; 3-300mb; 2-200mb; NA-Other	
O	1 / 4 NM	NAVIGATION FIX ACCURACY / METEOROLOGICAL ACCURACY	
P	REMARKS MAX FL WIND 74 KT NE QUAD 0214 Z Surface Pressure extrapol 850 mb Stc wind max ne quad 120 miles 57 KTS 023100Z		

INSTRUCTIONS: items A thru G (and H when extrapolated) are transmitted from the aircraft immediately following the fix. The remainder of the message is transmitted as soon as available for scheduled fixes and at the Flight Director's discretion for unscheduled (intermediate) fixes.

2734 8655

2832 8414

2625 8632

DATE 6/11/05	SCHEDULED RX TIME	AIRCRAFT NUMBER 43	FLIGHT DIRECTOR Mayeaux
WX MISSION IDENTIFIER Noaa3 07014 Arlene			OB NUMBER 9
VORTEX DATA MESSAGE			
A	11 10147 Z	DATE and TIME of FIX	
B	26 DEG 54 MIN N S	LATITUDE of FIX	
	86 DEG 07 MIN W E	LONGITUDE of FIX	
C	850MB 1349 M	MINIMUM HEIGHT of STANDARD LEVEL	
D	36 KT	ESTIMATE of MAXIMUM SURFACE WIND OBSERVED	
E	220 DEG 36 NM	BEARING and RANGE FROM CENTER of MAXIMUM SURFACE WIND	
F	27 DEG 26 KT	MAXIMUM FLIGHT LEVEL WIND NEAR CENTER	
G	220 DEG 58 NM	BEARING and RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND	
H	989 MB	MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM FLIGHT LEVEL. IF EXTRAPOLATED, CLARIFY IN REMARKS.	
I	21 C 11395 M	MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE OUTSIDE EYE	
J	24 C 11393 M	MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE INSIDE EYE	
K	18 C 1 NAC	DEWPOINT TEMP / SEA SURFACE TEMP INSIDE EYE	
L	Poorly Defined	EYE CHARACTER: Closed wall, poorly defined, open SW, etc.	
M	N/A	EYE SHAPE/ORIENTATION/DIAMETER: Code eye shape as: C - Circular; CO - Concentric; E - Elliptical. Transmit orientation of the major axis in tens of degrees, i.e., 01-010 to 190; 17 - 170 to 350. Transmit diameter in nautical miles. Examples: C8= Circular eye 8 miles in diameter. E09/15/5=Elliptical eye, major axis 090-270, length of major axis 15 NM, length of minor axis 5 NM. CO8-14=Concentric eye, diameter inner eye 8 NM, outer eye 14 NM.	
N	1,3,4,5/8	FIX DETERMINED BY / FIX LEVEL. FIX DETERMINED BY: 1-Penetration; 2-Radar; 3-Wind; 4-Pressure; 5-Temperature. FIX LEVEL (Indicate surface center if visible; indicate both surface and flight level centers ONLY when same): 0-Surface; 1-1500 ft; 9-925mb; 8-850mb; 7-700mb; 5-500mb; 4-400mb; 3-300mb; 2-200mb; NA-Other	
O	1 1 2 NM	NAVIGATION FIX ACCURACY / METEOROLOGICAL ACCURACY	
P	REMARKS 29 m/s MAX FL WIND 75 KT NE QUAD 2307 Z 5 m/s 0710 = 60 KT Surface Pressure extrapol 850 mb		

INSTRUCTIONS: items A thru G (and H when extrapolated) are transmitted from the aircraft immediately following the fix. The remainder of the message is transmitted as soon as available for scheduled fixes and at the Flight Director's discretion for unscheduled (intermediate) fixes.

DATE 6/10/05		SCHEDULED RX TIME 0100		AIRCRAFT NUMBER N43 RF		FLIGHT DIRECTOR Mayeaux	
WX MISSION IDENTIFIER N0993 0701A ARLCNE						OB NUMBER 6.	
VORTEX DATA MESSAGE							
A	11	10033 Z	DATE and TIME of FIX				
B	26 DEG 45 MIN N S		LATITUDE of FIX				
	85 DEG 45 MIN W E		LONGITUDE of FIX				
C	850 MB 1350 M		MINIMUM HEIGHT of STANDARD LEVEL				
D	NA KT		ESTIMATE of MAXIMUM SURFACE WIND OBSERVED				
E	NA DEG NA NM		BEARING and RANGE FROM CENTER of MAXIMUM SURFACE WIND				
F	143 DEG 48 KT		MAXIMUM FLIGHT LEVEL WIND NEAR CENTER				
G	116 DEG 62 NM		BEARING and RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND				
H	990 MB		MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM FLIGHT LEVEL. IF EXTRAPOLATED, CLARIFY IN REMARKS.				
I	24 C / 1372 M		MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE OUTSIDE EYE				
J	26 C / 1377 M		MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE INSIDE EYE				
K	17 C / NA C		DEWPOINT TEMP / SEA SURFACE TEMP INSIDE EYE				
L	Poorly defined		EYE CHARACTER: Closed wall, poorly defined, open SW, etc.				
M	N/A		EYE SHAPE/ORIENTATION/DIAMETER: Code eye shape as: C - Circular; CO - Concentric; E - Elliptical. Transmit orientation of the major axis in tens of degrees, i.e., 01-010 to 190; 17 - 170 to 350. Transmit diameter in nautical miles. Examples: C8= Circular eye 8 miles in diameter. E09/15/5=Elliptical eye, major axis 090-270, length of major axis 15 NM, length of minor axis 5 NM. CO8-14=Concentric eye, diameter inner eye 8 NM, outer eye 14 NM.				
N	1, 3, 4, 5, 8		FIX DETERMINED BY / FIX LEVEL. FIX DETERMINED BY: 1-Penetration; 2-Radar; 3-Wind; 4-Pressure; 5-Temperature. FIX LEVEL (Indicate surface center if visible; indicate both surface and flight level centers ONLY when same): 0-Surface; 1-1500 ft; 9-925mb; 8-850mb; 7-700mb; 5-500mb; 4-400mb; 3-300mb; 2-200mb; NA-Other				
O	1 / 3 NM		NAVIGATION FIX ACCURACY / METEOROLOGICAL ACCURACY				
P	REMARKS MAX FL WIND 75 KT NE QUAD 2307 Z Surface Pressure Extrapolated from 850 mb						

INSTRUCTIONS: items A thru G (and H when extrapolated) are transmitted from the aircraft immediately following the fix. The remainder of the message is transmitted as soon as available for scheduled fixes and at the Flight Director's discretion for unscheduled (intermediate) fixes.

DATE 6/10/2005		SCHEDULED RX TIME 23Z	AIRCRAFT NUMBER N432F	FLIGHT DIRECTOR
WX MISSION IDENTIFIER NORAS 0701A ARLEDE				OB NUMBER 3
VORTEX DATA MESSAGE				
A	10 1232Z	DATE and TIME of FIX		
B	26 DEG 32 MIN ^N S	LATITUDE of FIX		
	85 DEG 33 MIN ^W E	LONGITUDE of FIX		
C	850 MB 1366 M	MINIMUM HEIGHT of STANDARD LEVEL		
D	55 KT	ESTIMATE of MAXIMUM SURFACE WIND OBSERVED		
E	030 DEG 52 NM	BEARING and RANGE FROM CENTER of MAXIMUM SURFACE WIND		
F	105 DEG 75 KT	MAXIMUM FLIGHT LEVEL WIND NEAR CENTER		
G	030 DEG 52 NM	BEARING and RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND		
H	992 MB	MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM FLIGHT LEVEL. IF EXTRAPOLATED, CLARIFY IN REMARKS.		
I	22 C 11413 M	MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE OUTSIDE EYE		
J	22 C 11409 M	MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE INSIDE EYE		
K	19 C 126 C	DEWPOINT TEMP / SEA SURFACE TEMP INSIDE EYE		
L	poorly defined	EYE CHARACTER: Closed wall, poorly defined, open SW, etc.		
M	NA	EYE SHAPE/ORIENTATION/DIAMETER: Code eye shape as: C - Circular; CO - Concentric; E - Elliptical. Transmit orientation of the major axis in tens of degrees, i.e., 01-010 to 190; 17 - 170 to 350. Transmit diameter in nautical miles. Examples: C8= Circular eye 8 miles in diameter. E09/15/5=Elliptical eye, major axis 090-270, length of major axis 15 NM, length of minor axis 5 NM. CO8-14=Concentric eye, diameter inner eye 8 NM, outer eye 14 NM.		
N	1, 3, 4, 5/8	FIX DETERMINED BY / FIX LEVEL. FIX DETERMINED BY: 1-Penetration; 2-Radar; 3-Wind; 4-Pressure; 5-Temperature. FIX LEVEL (Indicate surface center if visible; indicate both surface and flight level centers ONLY when same): 0-Surface; 1-1500 ft; 9-925mb; 8-850mb; 7-700mb; 5-500mb; 4-400mb; 3-300mb; 2-200mb; NA-Other		
O	1 1 2 NM	NAVIGATION FIX ACCURACY / METEOROLOGICAL ACCURACY		
P	REMARKS MAX FL WIND 75 KT NE QUAD 2307 Z. Sur. Press from Dropsonde Max sfc wind from SFMR			

INSTRUCTIONS: items A thru G (and H when extrapolated) are transmitted from the aircraft immediately following the fix. The remainder of the message is transmitted as soon as available for scheduled fixes and at the Flight Director's discretion for unscheduled (intermediate) fixes.

SCHEDULED / ACTUAL TAKEOFF Z	DATE OF TAKEOFF
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**U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
AIRCRAFT OPERATIONS CENTER**

