

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

Flt ID: 040915I	From: KMCF	To:
Flt. No: 04-066	Blk In: 0716z	Time On: 0707z
ETD: 2300z	Blk Out: 2243z	Time Off: 2257z
ETE: 9+00	Blk Time: 8+33 8.5 Hrs	Flt Time: 8+10 8.2 Hrs
Sponsoring Org: NOAA/NHC	Program: Hurr. 2004	Purpose: H. IVAN

AOC Flight Crew

Aircraft Commander: TEBCEST, R	Data System: LYNCH, T ✓
Co-Pilot: STRONG, T / NELSON, M	AVAPS: SMITH, J ✓
Navigator: SIEGEL, P / BRAKOB	System Eng:
Flight Eng: FLOYD, D / KLIPPEL, J	A A: TOPEY, B ✓
Flight Director: SHEPHERD, T ✓ +4	A A:
Avionics: SANS SOULI, D ✓	Crew Chief:

Participating Scientists / Visitors

Name (Last, First)	Activity on Aircraft	Affiliation
GAMACHE, J ✓	PI	NOAA/HRD
DODGE, P ✓	 	
BLACK, M ✓		
WALSH, E ✓	SRA	
STAFFORD, F. Col.	OBS	
ROBERTS, NED ✓	MEDIA	Tampa Ch 10 - CBC
HARRIGAN, Robert	 	SARASOTA - ABC

Remarks (Storm Name, Mission ID, Recco Times, Fix Times) Storm Name: IVAN Mission ID: NOQA3 4209A IVAN	Recco Times 0032 0102 0155 0305 0500 0628	Fix # Fix Time 1-0014- 2-0130 3-0238- 4-0407 5-0538-
	0527	

(See reverse for additional remarks)

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

Flight ID: 040915I Time Off: 2257 Time On: 0707

	A/C - Takeoff	Wx Station - Takeoff	A/C - Land	Wx Station - Land
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Pressure	<u>1011.1</u>	<u>29.88</u>	<u>1011.3</u>	<u>29.91</u>
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	Number	Data Disposition / Date / Quality
Flight Level Tapes	<u>2</u>	
Radar Tapes	<u>3</u>	
Cloud Physics Tapes / CDs		
Video Tapes	<u>4</u>	
Dropsondes	<u>31</u>	Good: Bad:
AXBT	<u>Ø</u>	
AXCP	<u>1</u>	
AXCTD		

Remarks:

Total Sondes 8/30/04 → 9/15/04 275 ~15% bad



**NOAA P-3 N43RF
CBLAST 2004
FLIGHT #12**

Flight ID: I040915

Sensor or system

Number or Name

INE.....	1
Accelerometer.....	1
Temperature Probe.....	1
Dew Point Probe.....	2
Altimeter (for vertical wind).....	RA-159
Static Pressure.....	Rosemount (fuselage)
Dynamic Pressure.....	Rosemount (fuselage)
Time Source.....	Micro 99
Constants File.....	CO3043.con

Local Met. Data: Not copied at takeoff

Take off: 2257Z

Land: 0707Z

The RA-232 was substituted for the RA-159 during take off and landing due to spiking (T.O. 225411-230134; Land 070532-070900).

The RA-159 had spikes that were removed and patched (042500-042505; 042803-042806).

The Johnson-Williams liquid water sensor was operative for the entire flight.

The differential attack pressure (APF) had spikes that were removed and patched (232817-233006). The differential slip pressure (BPF) had spikes that were removed and patched (2331-39-233356). The dynamic attack pressure (DAP) had spikes that were removed and patched (232820-233026). The dynamic slip pressure (DBP) had spikes that were removed and patched (233231-233351).

There were times during heavy precipitation events (e.g. eye wall penetrations) when the dew point exceeded ambient temperature yielding a RH of greater than 100%. This is probably due to a wet bulb effect on the total temperature probe and/or the dew pointer over heating while trying to remove excess moisture. In these instances, no corrections were attempted.

The aircraft INE positions were re-navigated with respect to GPS.

SPECIAL NOTE: Locations 80, 81, and 82 of record 5 in the standard data contain vertical ground speed, vertical air speed, and vertical wind speed computed using Dr. Dave Jorgensen's vertical wind algorithm. It is recommended that these values be used for vertical wind analysis.

	Take off	Land
Aircraft Static Pressure	1011.1 mb	1011.3 mb
Corrected Tower Pressure	1011.9 mb	1012.9 mb

Flight Director: Tom Shepherd
813-828-3310 x3053

29.0
88.2

Mission JUAN - SFMR + FIX Flt ID 040915I

SED Crew Lynch, Sans Souci, Smith

Pre-Flight 21:00 Take-Off 22:56 Landing 07:06

System		Pre-Flight		In-Flight			Post-Flight				
NAV	GPS	FM: 1	US				LAT	CON	CS	RE	
	INE #1	Time On: 2:10	Aligned to: 0	US			-4.1	134.4	4	5	
	INE #2	Time On: 2:10	Aligned to: 0	US			-4.7	139.2	2	11	
	Diff GPS										
RADAR	MARS Data	Start	Stop	Ready?	HRD?		# DATs ? 5 Given To: Dodge				
	MARS	23:08	00:37		Y/N						
	MARS Data / Tape Status										
	MARS	U8	clean	01:47 / 00:05							
	MARS	LU9	clean								
	RADAR R/T SN Tail		202102LF 102		Mod Switches		ON	Mod Switches OFF			
PMS	FSSP Ref VDC:	Covers	OFF	NI			Covers ON				
	Cloud Mono	Covers	OFF				Covers ON				
	CIP	Covers	OFF				Covers ON				
	SEA Data DAT	Start	Stop	Ready?	#DATS	Errors	Disk Write	Given To: -			
	DAT	Clean?					Y / N				
TEMP		Cal High	Cal Low				Cal High	Cal Low			
	Temp #1	30.5	-30.4	TL			30.6	-30.2			
	Temp #2			TL			Power	OFF			
	Temp #3			NI			Power	OFF			
PRE	Dewpoint	#1	#2	#3 (TDL)	TL		Power	OFF			
	Attack / Slip Angle	AP	AP	BP	DRP	TL	Power	OFF			
	Differential	PO1	PO2	PO3	PO4	TL	Power	OFF			
FLTLVL	Absolute	PS	RS	CBP3	TL		Power	OFF			
	Apr-159 SN:	66-024					Power	OFF			
	Apr-232 SN:	1761		TL			Power	OFF			
	Liquid Water	J&W King		JS	28V WOW: ON?		Power	OFF			
RAMS	Radiometer	PO2 EST		JS	28V WOW: ON?		Power	OFF			
	RAMS Data	Start	Stop	Ready?	Errors 8:	Errors 9:	# DATs ? 2 Given To: 34				
	CPU: A	B	22:41	7:17	TL			Power OFF			
	RAMS Data / Tape Status										
	RAMS	U8	clean		TL			Disk Records: 3102			
	RAMS	U9	clean		TL						
	Flight Director Laptop				JS			Power OFF			
MISC	Network				NI						
	ASDL Mission #:	4209A Name: JUAN			Freq: 30	Block: 10	Power OFF				
	C.I. Printer	Start	Stop	Ready?	Paper Bin Stores		Given To: Shop				
	PRATE:	10	22:39	07:17	TL	0%	25%	50%	75%	100%	Power OFF
MISC	Exterior Walk Around	Plugs	Covers	JS			Plugs Covers				
	SATCOM	WIS	kmarsat	GlobalStar	JS			Power OFF			
	AXBT Internal	# Loaded:			NI			# Launched: -			
	AXBT External	# Loaded:			NI	28V WOW		# Launched: -			
	AVAPS	# On Board:	55		JS			# Dropped: 31			
	Video Cameras	Start	Stop	Ready?	Cameras	Mode	# Tapes ? Given To:				
VHS	S4H3	22:40	07:18	TL	(N) (O) (O)	2	(R)	Lens Cap ? : ✓			
USER	FCU	B-C-12		TL			UPS OFF				
	SFMR	HRD	AOO	TL							
	HRD Work Station							Accelerometers			
	NASA SRA							#1 (2 G): 8205			
	ARL BAT Probe, SST & IRGA				NI			#2 (2.5 G): 6687			
UW PDA				NI			#3 (3 G): 5967				
Scripps MASS, Laser Alt, IR Cam & Sono				NI			#4 (3.5 G): 2892				
RSMAS Licor				TL							

DATE 9/15/04	SCHEDULED RX TIME 06Z	AIRCRAFT NUMBER N43	FLIGHT DIRECTOR SHEPHERD
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WX MISSION IDENTIFIER NOAA3 A209A IVAN	OB NUMBER 38
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VORTEX DATA MESSAGE

A	1610538 Z	DATE and TIME of FIX
B	29 DEG 55 MIN (N) S	LATITUDE of FIX
	87 DEG 53 MIN (W) E	LONGITUDE of FIX
C	700 MB 2604 M	MINIMUM HEIGHT of STANDARD LEVEL
D	NA KT	ESTIMATE of MAXIMUM SURFACE WIND OBSERVED
E	NA DEG NM	BEARING and RANGE FROM CENTER of MAXIMUM SURFACE WIND
F	220 DEG 115 KT	MAXIMUM FLIGHT LEVEL WIND NEAR CENTER
G	134 DEG 44 NM	BEARING and RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND
H	939E 943 MB	MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM FLIGHT LEVEL. IF EXTRAPOLATED, CLARIFY IN REMARKS.
I	19 C / 3060 M	MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE OUTSIDE EYE
J	19 C / 3058 M	MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE INSIDE EYE
K	14 C / NA C	DEWPOINT TEMP / SEA SURFACE TEMP INSIDE EYE
L	OPEN S	EYE CHARACTER: Closed wall, poorly defined, open SW, etc.
M	C40	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	12345/7	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 / NM	NAVIGATION FIX ACCURACY / METEOROLOGICAL ACCURACY

P	REMARKS MAX FL WIND 112 KT SE QUAD 0527 Z SLP FROM Dropsonde
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NSTRUCTIONS: 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 9/15/04	SCHEDULED RX TIME /	AIRCRAFT NUMBER N43	FLIGHT DIRECTOR SHEPHERD
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WX MISSION IDENTIFIER NOAA3 4209A IVAN	OB NUMBER 29
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VORTEX DATA MESSAGE

A	161040Z	DATE and TIME of FIX
B	29 DEG 34 MIN N S	LATITUDE of FIX
	87 DEG 58 MIN W E	LONGITUDE of FIX
C	700 MB 2583 M	MINIMUM HEIGHT of STANDARD LEVEL
D	NA KT	ESTIMATE of MAXIMUM SURFACE WIND OBSERVED
E	NA DEG NM	BEARING and RANGE FROM CENTER of MAXIMUM SURFACE WIND
F	157 DEG 116 KT	MAXIMUM FLIGHT LEVEL WIND NEAR CENTER
G	65 DEG 43 NM	BEARING and RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND
H	^{936E} 939 MB	MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM FLIGHT LEVEL. IF EXTRAPOLATED, CLARIFY IN REMARKS.
I	19 C 13057 M	MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE OUTSIDE EYE
J	20 C 13061 M	MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE INSIDE EYE
K	14 C / NA C	DEWPOINT TEMP / SEA SURFACE TEMP INSIDE EYE
L	Poorly defined	EYE CHARACTER: Closed wall, poorly defined, open SW, etc.
M	C 50'	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	12345/7	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	11 / NM	NAVIGATION FIX ACCURACY / METEOROLOGICAL ACCURACY

P REMARKS
 MAX FL WIND 122 KT SE QUAD 0010 Z
 SLP FROM Dropsonde

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.

#3

DATE 9/15/04	SCHEDULED RX TIME 03	AIRCRAFT NUMBER N43	FLIGHT DIRECTOR SHEPHERD
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WX MISSION IDENTIFIER NOAA3 4209A	OB NUMBER 21
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VORTEX DATA MESSAGE

A	16 10238 Z	DATE and TIME of FIX
B	29 DEG 15 MIN 0 S	LATITUDE of FIX
	88 DEG 05 MIN W E	LONGITUDE of FIX
C	700 MB 2548M	MINIMUM HEIGHT of STANDARD LEVEL
D	NA KT	ESTIMATE of MAXIMUM SURFACE WIND OBSERVED
E	NA DEG NM	BEARING and RANGE FROM CENTER of MAXIMUM SURFACE WIND
F	88 DEG 99 KT	MAXIMUM FLIGHT LEVEL WIND NEAR CENTER
G	003 DEG 20 NM	BEARING and RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND
H	933E 936 MB	MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM FLIGHT LEVEL. IF EXTRAPOLATED, CLARIFY IN REMARKS.
I	14 C / 3065M	MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE OUTSIDE EYE
J	21 C / 3066M	MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE INSIDE EYE
K	13 C / NAC	DEWPOINT TEMP / SEA SURFACE TEMP INSIDE EYE
L	OPEN SW	EYE CHARACTER: Closed wall, poorly defined, open SW, etc.
M	C 40	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. <i>Examples:</i> 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	12345/7	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	111 NM	NAVIGATION FIX ACCURACY / METEOROLOGICAL ACCURACY

P	REMARKS MAX FL WIND 122 KT SE QUAD 0010 Z SLP FROM DROPSONDE
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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.

#2

DATE 9/15/04	SCHEDULED RX TIME —	AIRCRAFT NUMBER N43	FLIGHT DIRECTOR SHEPHERD
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WX MISSION IDENTIFIER NOAA3 4209A IVAN	OB NUMBER 11
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VORTEX DATA MESSAGE

A	1610130 Z	DATE and TIME of FIX
B	29 DEG 03 MIN (N) S	LATITUDE of FIX
	88 DEG 06 MIN (W) E	LONGITUDE of FIX
C	700 MB 2525 M	MINIMUM HEIGHT of STANDARD LEVEL
D	NA KT	ESTIMATE of MAXIMUM SURFACE WIND OBSERVED
E	NA DEG NM	BEARING and RANGE FROM CENTER of MAXIMUM SURFACE WIND
F	294 DEG 100 KT	MAXIMUM FLIGHT LEVEL WIND NEAR CENTER
G	202 DEG 13 NM	BEARING and RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND
H	SAFE 933 MB	MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM FLIGHT LEVEL. IF EXTRAPOLATED, CLARIFY IN REMARKS.
I	22 C / 2997 M	MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE OUTSIDE EYE
J	22 C / 3014 M	MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE INSIDE EYE
K	13 C / NA C	DEWPOINT TEMP / SEA SURFACE TEMP INSIDE EYE
L	OPEN SW	EYE CHARACTER: Closed wall, poorly defined, open SW, etc.
M	C40	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	12345/7	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 / NM	NAVIGATION FIX ACCURACY / METEOROLOGICAL ACCURACY

P	REMARKS MAX FL WIND 122 KT SE QUAD 0010 Z
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NSTRUCTIONS: 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.

#1

DATE 9/15/04	SCHEDULED RX TIME 00Z	AIRCRAFT NUMBER N43	FLIGHT DIRECTOR SHEPHERD
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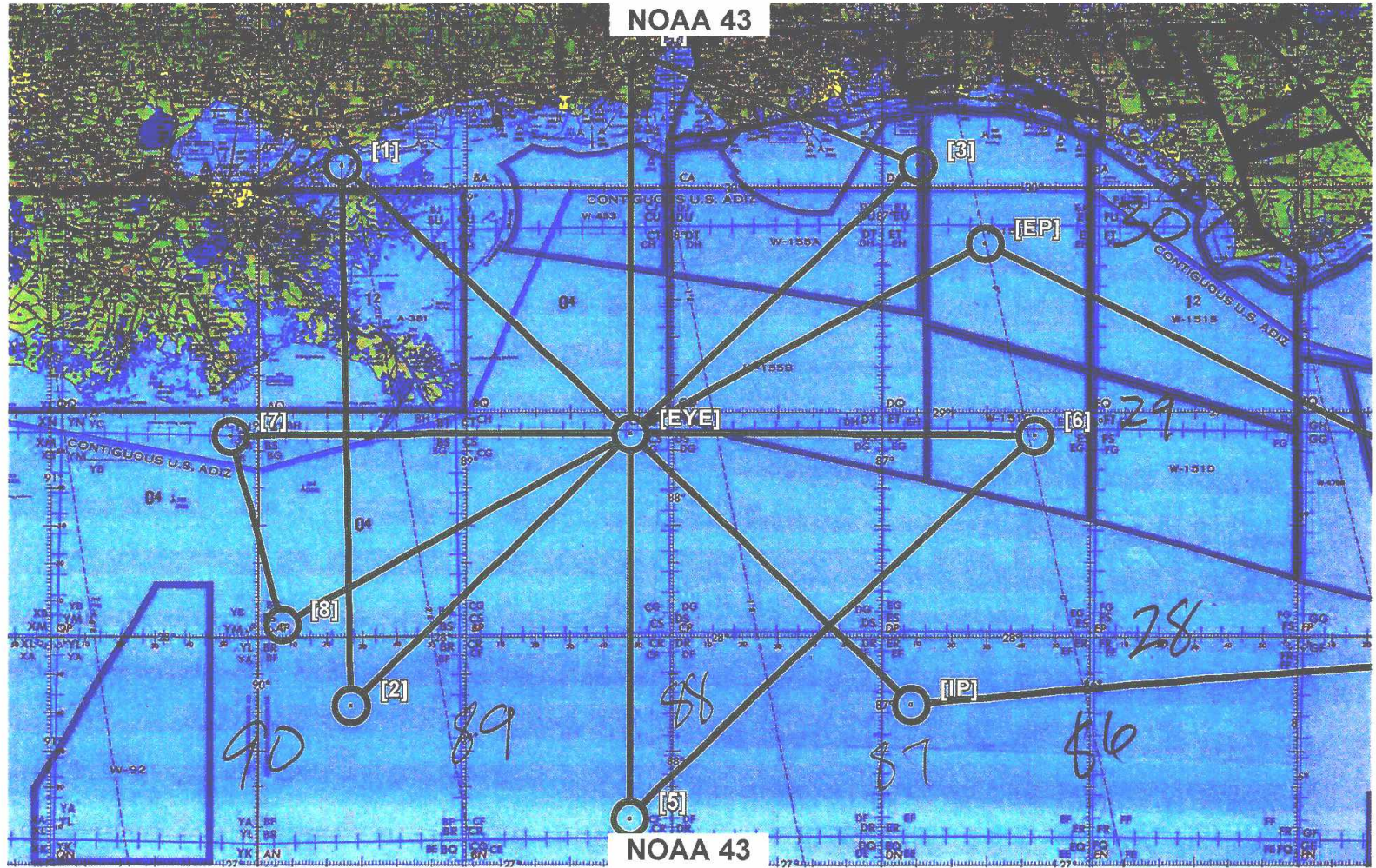
WX MISSION IDENTIFIER NOAA3 4209A IVAN	OB NUMBER 5
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VORTEX DATA MESSAGE

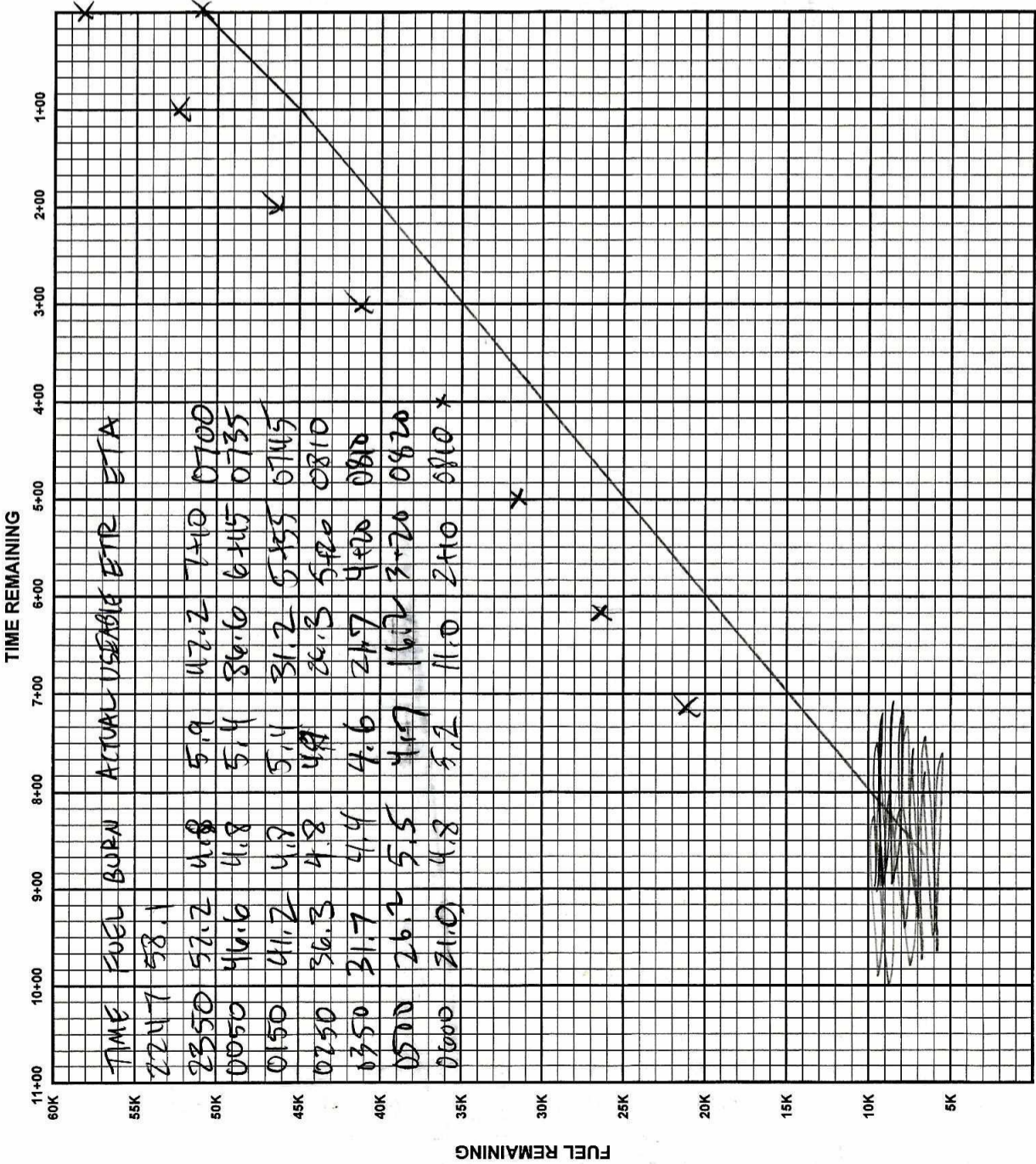
A	1810014 Z	DATE and TIME of FIX
B	28 DEG 53 MIN S	LATITUDE of FIX
	88 DEG 11 MIN E	LONGITUDE of FIX
C	700 MB 2520 M	MINIMUM HEIGHT of STANDARD LEVEL
D	NA KT	ESTIMATE of MAXIMUM SURFACE WIND OBSERVED
E	NA DEG NM	BEARING and RANGE FROM CENTER of MAXIMUM SURFACE WIND
F	192 DEG 122 KT	MAXIMUM FLIGHT LEVEL WIND NEAR CENTER
G	110 DEG 21 NM	BEARING and RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND
H	931 931 MB	MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM FLIGHT LEVEL. IF EXTRAPOLATED, CLARIFY IN REMARKS.
I	20 C / 3051 M	MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE OUTSIDE EYE
J	22 C / 3052 M	MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE INSIDE EYE
K	13 C / NA C	DEWPOINT TEMP / SEA SURFACE TEMP INSIDE EYE
L	OPEN NW-SE	EYE CHARACTER: Closed wall, poorly defined, open SW, etc.
M	C 40	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	12345/7	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	11 NM	NAVIGATION FIX ACCURACY / METEOROLOGICAL ACCURACY

P REMARKS
 MAX FL WIND 122 KT SE QUAD 0010Z
 SLP FROM DROPSONDE

NSTRUCTIONS: 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.



RANGE CONTROL GRAPH



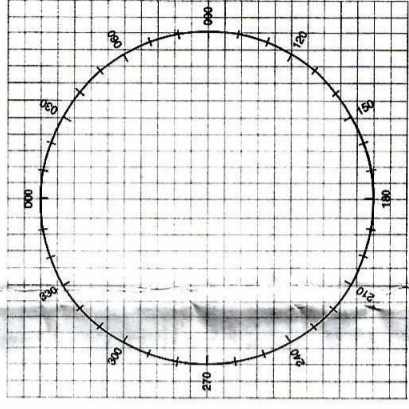
ENROUTE FUEL	
ENROUTE TIME	8:00
ENROUTE FUEL (6K 5K 4.5K RULE)	41.0
RESERVE AT DESTINATION	10.0
REQUIRED RAMP	51.0
ACTUAL RAMP FUEL	58.1

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

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

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			



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

TRUE AIRSPEED CROSS-CHECK					
PRESS ALT	200	250	300	350	TIME
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	"P" FACTOR	EAS	OAT	TAS	ITAS

DISTANCE REMAINING

ETP = .5(TOTAL DISTANCE x OUTBOUND WIND FACTOR)

MISSION PREFLIGHT LOG

SCHEDULED / ACTUAL TAKEOFF Z DATE OF TAKEOFF
2300, 2257 15SEP09

FLIGHT DIRECTOR
SHEPHERD

AIRCRAFT COMMANDER
TEBERT

NAVIGATOR
BRAICOR/SIEGEL

DESTINATION
KMGF

MISSION
JUANITO

WP	LAT / LON	RTE	MH	VAR +E=>	TH	DR +R=>	TRK	GS	WD	WS	ALT	TAS	LEG / TOT DIST	LEG / TOT TIME	PROP ETA	ETA	ATA	REMARKS
1	N 27 51.7 W 82 30.8		275	2W	273	0	273	280	L	V								
2	27 55.2 83 43.1		268	1W	266	0	266	280										
3	27 39.0 86 49.0		316	0	316	0	316	280										
8	29 45 88 05.7	8																
1	29 51.6 89 18.3			30 07.1 29 36.7														
2	27 38.5 89 31.9																	
3	30 17.1 86 41.1																	
4	30 06.4 88 04.7																	
5	27 30.1 88 04.8	20																
6	29 14.1 86 05.5	21																
7																		
8																		
EP																		
MINE	27 39.5 82 40.7																	

KMGF
RUDOF
IP
EYE
1
2
3
4
5
6
7
8
EP
MINE

INS PERFORMANCE	
INS 1	INS 2
BEGIN ALIGN TIME	217 2117
ALIGN STATUS (0-5)	0 0
END NAV TIME	0707 0707
START NAV TIME	2221 2221
DELTA T	8+46 8+46

TERMINAL ERRORS	
INS 1	INS 2
DELTA LAT	-4.1 -9.7
DELTA LON	+3.1 +5.9
RGS	4 2
RADIAL ERROR	5 1

REMARKS
BCN 243.0
29 33.5
87 27.9