

FLT ID: 861001H	FM: MMPR	TO: MMPR
FLT NO: 87-01	BLK IN: 02/0104Z	ATA: 02/0100Z
ETD: 1730Z	BLK OUT: 1730Z	ATD: 1741Z
ETE: 0+00	BLK TIME: 7+34	FLT TIME: 7+19
SPONSOR ORG: HRD	PROGRAM: Avel. "Paine"	PURPOSE: RAINBAND (EPAC)

OAO PERSONNEL

AC GENZLINGER ✓	SYS ENG JARVI ✓
CP Mendelkern	DATA SYS Leyva ✓
NAV Branhill ✓	RADAR THOMPSON ✓
FE Correll	BT/ODW
RADIO Nunn ✓	CLD PHYS
FD BOBERT ✓	DOPPLER

PARTICIPATING SCIENTIST/VISITORS/OAO

LAST, FIRST NAME	ACTIVITY ON A/C	AFFILIATION
McFadden, J. ✓	I.H. V.I.P.	OAO
BARNES, G. ✓	P.I.	ERL
BURpee, R. ✓	RADAR	HRD
Willis, P. ✓	AMS	"
Guffin, J. ✓	RADAR	"
Mendenhall, C. ✓	VIP	MEX W.B.
<del>Arce-Hegazi, M.</del>	VIP	<del>COLE MEXI MILITARY</del>
<del>Intergo, J.</del>	VIP	
LIZABLAS, M. ✓	VIP	MEX. W.B.

PROPOSED/ACTUAL MISSION/REMARKS (RECCO, FIXES, STORM, PENET, NHOP #)

(13) Sandoval Galvan eyescencio (ATC)

(1) IP 21N 107.5W

(2) D.P. BAL @ 2130Z & 0027Z

(3) 2ND TAS CAP @ 02/0029Z @ 10000 FT  
0030Z - 0032Z (2 min)

07 PENETRATIONS

ALT 29.86  
1011mb  
SP-1011.0  
PS-1011.0  
PSS-1011.0

ALT 29.81  
1009.0  
SP-1010.0  
PS-1010.0  
PSS-1010.0

FLT ID: 861001H TIME OFF: 1741Z TIME ON: 02/0100Z

	A/C T/O	WX STN	A/C LAND	WX STN
PRESSURE	1011.0	1011.0	1010.0	1009.0

NO DATA DISPOSITION/DATE/QUALITY

1/SEC FLT LVL TAPES	1	
FAST FLT LVL TAPES	0	
RADAR TAPES	14	CK COUNT w/ SED.
DOPPLER TAPES	0	
ODW CASSETTES	0	
HARD COPIES	12	
PMS	17	
AXBT	0	
AXCP	0	
ODW	0	

PHOTOGRAPHY

	FWD	LS	RS	VERT	
ON					✓
OFF					✓
RATE					✓

REMARKS

VORTEX DATA MESSAGE

MANOP HEADING (PRECEDENCE IMMEDIATE)	
MISSION IDENTIFIER AND OBSERVATION NUMBER <b>NOAA2 0223 PAINE 082</b>	
(ABBREVIATED) (DETAILED) VORTEX DATA MESSAGE	
A	<b>01/1849</b> Z DATE AND TIME OF FIX
B	<b>21</b> DEG <b>32.3</b> MIN <b>(N)</b> S LATITUDE OF VORTEX FIX
	<b>109</b> DEG <b>10.4</b> MIN <b>(W)</b> LONGITUDE OF VORTEX FIX
C	<b>N/A</b> M MINIMUM HEIGHT AT STANDARD LEVEL
D	<b>85</b> KT ESTIMATE OF MAXIMUM SURFACE WIND OBSERVED
E	<b>090</b> DEG <b>25</b> NM BEARING AND RANGE FROM CENTER OF MAXIMUM SURFACE WIND
F	<b>192</b> DEG <b>104</b> KT MAXIMUM FLIGHT LEVEL WIND NEAR CENTER
G	<b>090</b> DEG <b>25</b> NM BEARING AND RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND
H	<b>983</b> MB MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM WITHIN 1500 FT OF SEA SURFACE
I	C/ M MAX FLT LVL TEMP/PRESSURE ALT OUTSIDE EYE
J	C/ M MAX FLT LVL TEMP/PRESSURE ALT INSIDE EYE
K	C/ C DEWPOINT TEMP /SEA SURFACE TEMP INSIDE EYE
L	EYE CHARACTER: Closed wall, poorly defined, open SW, etc.
M	EYE SHAPE/ORIENTATION/DIAMETER. Code eye shape as: C - Circular; CO - Concentric; E - Elliptical. Transmit orientation of 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 5NM. CO8-14 - Concentric eye, diameter inner eye 8 NM, outer eye 14 NM.
N	DEG MIN N S
	DEG MIN E W
	Z
O	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; 8 - 850 mb; 7 - 700 mb; 5 - 500 mb; 4 - 400 mb; 3 - 300 mb; 2 - 200 mb; 9 - Other.
P	NM NAVIGATION FIX ACCURACY/METEOROLOGICAL ACCURACY
Q	REMARKS <b>SFC PRES XTRP FM 1500 FT.</b>

INSTRUCTIONS: Items A through 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 ARWO's discretion for unscheduled (intermediate) fixes.

1908 Z

KVY-74

VORTEX DATA MESSAGE

MANOP HEADING (PRECEDENCE IMMEDIATE)			
MISSION IDENTIFIER AND OBSERVATION NUMBER NOAA2 0223 PAINE OB#6			
(ABBREVIATED) (DETAILED) VORTEX DATA MESSAGE			
A	01/2009	Z	DATE AND TIME OF FIX
B	21 DEG 44 MIN N S		LATITUDE OF VORTEX FIX
	109 DEG 09 MIN E W		LONGITUDE OF VORTEX FIX
C	N/A	M	MINIMUM HEIGHT AT STANDARD LEVEL
D	70	KT	ESTIMATE OF MAXIMUM SURFACE WIND OBSERVED
E	230 DEG 20	NM	BEARING AND RANGE FROM CENTER OF MAXIMUM SURFACE WIND
F	750 DEG 80	KT	MAXIMUM FLIGHT LEVEL WIND NEAR CENTER
G	230 DEG 20	NM	BEARING AND RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND
H	982	MB	MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM WITHIN 1500 FT OF SEA SURFACE
I	C/	M	MAX FLT LVL TEMP/PRESSURE ALT OUTSIDE EYE
J	C/	M	MAX FLT LVL TEMP/PRESSURE ALT INSIDE EYE
K	C/	C	DEWPOINT TEMP/SEA SURFACE TEMP INSIDE EYE
L	EYE CHARACTER: Closed wall, poorly defined, open SW, etc.		
M	EYE SHAPE/ORIENTATION/DIAMETER. Code eye shape as: C - Circular; CO - Concentric; E - Elliptical. Transmit orientation of 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 15NM, length of minor axis 5NM. CO8-14 - Concentric eye, diameter inner eye 8 NM, outer eye 14 NM.		
N	DEG	MIN N S	CONFIRMATION OF FIX: Coordinates and Time
	DEG	MIN E W	
		Z	
O	/		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; 8 - 850 mb; 7 - 700 mb; 5 - 500 mb; 4 - 400 mb; 3 - 300 mb; 2 - 200 mb; 9 - Other.
P	/	NM	NAVIGATION FIX ACCURACY/METEOROLOGICAL ACCURACY
Q	REMARKS Stc Pres XTRP FM 1500 FT.		

INSTRUCTIONS: Items A through 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 ARWO's discretion for unscheduled (intermediate) fixes.

2037z

KJY-74

VORTEX DATA MESSAGE

MANOP HEADING (PRECEDENCE IMMEDIATE)			
MISSION IDENTIFIER AND OBSERVATION NUMBER <b>NORR2 0223 RAINE OB #14</b>			
(ABBREVIATED) (DETAILED) VORTEX DATA MESSAGE			
A	<b>01/2343</b>	Z	DATE AND TIME OF FIX
B	<b>22 DEG 27 MIN (N)</b>		LATITUDE OF VORTEX FIX
	<b>109 DEG 07 MIN (W)</b>		LONGITUDE OF VORTEX FIX
C	<b>N/A</b>	M	MINIMUM HEIGHT AT STANDARD LEVEL
D	<b>85</b>	KT	ESTIMATE OF MAXIMUM SURFACE WIND OBSERVED
E	<b>110 DEG 50</b>	NM	BEARING AND RANGE FROM CENTER OF MAXIMUM SURFACE WIND
F	<b>190 DEG 105</b>	KT	MAXIMUM FLIGHT LEVEL WIND NEAR CENTER
G	<b>110 DEG 50</b>	NM	BEARING AND RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND
H	<b>981</b>	MB	MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM WITHIN 1500 FT OF SEA SURFACE
I	C/	M	MAX FLT LVL TEMP/PRESSURE ALT OUTSIDE EYE
J	C/	M	MAX FLT LVL TEMP/PRESSURE ALT INSIDE EYE
K	C/	C	DEWPOINT TEMP/SEA SURFACE TEMP INSIDE EYE
L			EYE CHARACTER: Closed wall, poorly defined, open SW, etc.
M			EYE SHAPE/ORIENTATION/DIAMETER. Code eye shape as: C - Circular; CO - Concentric; E - Elliptical. Transmit orientation of 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	DEG MIN N S		CONFIRMATION OF FIX: Coordinates and Time
	DEG MIN E W		
	Z		
O	/		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; 8 - 850 mb; 7 - 700 mb; 5 - 500 mb; 4 - 400 mb; 3 - 300 mb; 2 - 200 mb; 9 - Other.
P	/	NM	NAVIGATION FIX ACCURACY/METEOROLOGICAL ACCURACY
Q			REMARKS
<p><b>Stc Pres XTRP XTRP FM 1500 FT.</b>  <b>LAST RPT ETA M MPR 02/0045 Z</b>  <b>OBS 01-14 KMIA.</b></p>			
<p>INSTRUCTIONS: Items A through 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 ARWO's discretion for unscheduled (intermediate) fixes.</p>			

SFO/KNY-74 5-18

↓  
S  
109° 54.9 min W  
Aug 21. 55 min  
02  
22 deg

IN 1500'  
Decend 500'  
OUT 500'  
~~IN 1500'~~  
IN 1500'  
OUT 1500'

~~43132 91240~~

LAT 21° 40 min N  
109° 17 min W

TRK 068° 42

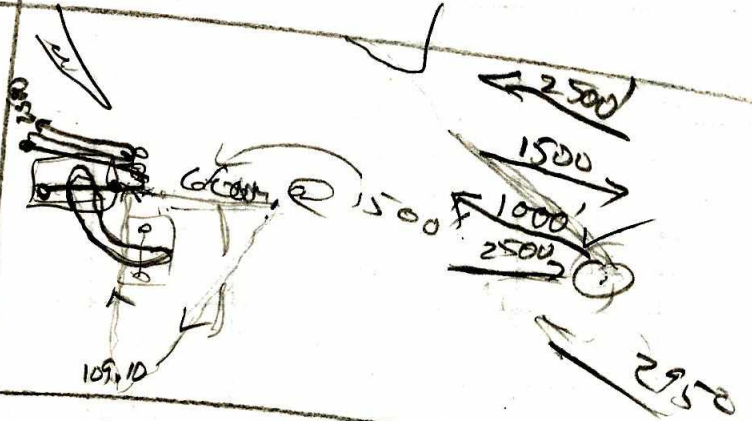
Access 2500'  
IN 11  
OUT 11

~~42727 91245~~  
42933  
92265

OUT 1000'

~~IN 1000'~~

21542  
980 mb  
22 deg 10' N  
109 deg 10' W



OUT 2500'

→ IN 2500'

~~43137 91245~~  
~~43140 91240~~

861001H

Time	Lat	Lon	TRK	WD	WS	GA	PA	SP	TA	TD	RD	PS	PSG		
1752-1757	20.78	106.06	263	186	19.5	1632	1562	1012	17.6	12.2	26.1	839	834	IC, 05K	
1802-1808	20.72	106.69	268	166	21.0	448	453	1010	24.6	21.6	27.5	960	956	TERMINATE.	
1823-1828	21.01	107.62	271	176	29.0	406	416	1007	22.4	21.4	26.4	961	955	TAS CAL	
1828-1849	IP													TERMINATED	
FIX 1849	CNTR		21 deg		32.3 min	N		109 deg	10.4 min	W		983 mb		eye # 1	
1918-1930	21.53	110.78	131	307	19.3	447	503	1005	21.3	20.5	26.3	954	949	PT # 2	
1947	20.07	109.95	122	281	28.7	432	510	1002	20.8	20.8	22	954	948	SE - 9	
FIX 2009	20.33	109.00	318	237	26.3	456	503	1005	20.6	20.5	23.7	954	949	PT # 3	
2056	CNTR		21 deg		43.5 min	N		109.08-8 min	W.			982 mb		eye # 2	
2139	21.74	109.01			500'							982 mb		eye # 3	
2154	21.91	110.06	322	318	23.0	309	430	997	22.7	22.7	997	963	957	TW D EXE	
2240	CNTR		22 deg		10.1 min	N.		109 deg	10.4 min	W.		980 mb		eye # 4	
2307	CNTR		22 deg		17 min	N.		109 deg	12 min	W.		980 mb		eye # 5	
2343	CNTR		22 deg		19.3 min	N.		109 deg	08 min	W.		980 mb		eye # 6	
02/0007	CNTR		22 deg		26.8 min	N.		109 deg	06.8 min	W.		981 mb		eye # 7	
0029	CLIMB		E		ENR			MMPR							
0034	TAS CAL													TAS CAL	
	TERMINATED		TAS		- ENR			MMPR							

Time 1832  
LOT 21.01  
LON 108.19  
WD/WS 190/70K  
TA/TA/RD 21/21/23  
PA 513  
HT 19  
SP 1002  
PS 953

192/80K  
90

21.50 108.40  
194/82K  
21/21/23  
534  
45-17  
SP 998 PS 948

10382  
21.18 108.57  
MAT 90/100K 990mb  
21/21/21  
PA 558

18492  
983 CALM  
21 deg 32.3 min N  
109 10.4 min W

43  
21 32 N 983  
109 07 min W 8220

WEST OF CENTER  
320-360 35-50 KTS  
OUT TO 70 NM  
21/20/26 1005mb

221N 109.8W  
270/60 KTS F/L  
1002mb  
21/21/24

19342  
40NM WEST

~~42940 91220~~  
45  
21/20 112 CUR  
71  
SW of eye  
246/80 KTS  
20 NM  
21/21/23

20092  
981  
982mb  
21 deg 43.5 min N  
109 08.8 min W



A/C COMMANDER	NAVIGATOR	A/C NO.	MISSION NO.	TIME AIRBORNE	LOCATION	DATE	PROJ. NAME		
mandelkeev	Barnhill	N42RF		174056	PVR N20-41.0 W105-14.5	10/11/86	HRD PAINE		
TIME OF ENTRY	POSITION	TYPE INE USED	INE #1 POSITION	LAT LON COR'S	INE #2 POSITION	LAT LON COR'S	ALT GS	TH TK	REMARKS
172924	N20-41.0 W105-14.5	4 1	N20-41.0 W105-14.5	+0 -0	N20-41.0 W105-14.5	+0 -0			PVR RAMP coord. TAXI GS OK HdqV
173520	N20-41.5 W105-14.3	4 1	N20-41.5 W105-14.3	+ -0	N20-41.5 W105-14.3	+ -0			Rwy V 22/229T HdqV #1 +1 #2 +1
182138	N21-00.7 W107-30.7	10 1	N21-00.7 W107-30.7	+ -0	N21-00.5 W107-30.4	+2 +3	1500		ID 1500' PVR (N/A) TAS ✓ done
184838	N21-32.3 W109-10.4	10 1	N21-32.3 W109-10.4	I 0	N21-32.2 W109-10.3	+1 +1	1500 225	275 268	CP 1500' PVR (N/A)
191510	N21-32.6 W110-50.1	10 1	N21-32.6 W110-50.1	+ -0	N21-32.5 W110-49.9	+1 +1	1500	249 270	TR1 1500' PVR (N/A)
194531	N20-22.2 W109-09.3	10 1	N20-22.2 W109-09.3	I 0	N20-21.9 W108-59.8	+3 +5	1500	124	TR2 1500' PVR (N/A)
200819	N21-43.5 W109-08.8	10 1	N21-43.5 W109-08.8	+ 0	N21-42.9 W109-08.3	+6 +5	1500		CP-2 STD (N/A)
210415	N W	10 1	N21-41.0 W109-04.1		N21-40.9 W109-03.5				circled before Entry @ 500'
2135	N W	10 1	N22-00.1 W110-21.1		N22-00.0 W110-19.7				
215334		10 1	N22-10.1 W109-10.4		N22-09.6 W109-09.6				CP-3
215950	N22-03.0 W109-11.0	2 1	N22-08.3 W109-11.5	-5.3 5.5	N22-07.9 W109-12.8	-4.9 -4.8			Pos ✓ STD 340/104.9 Bad fix
223950	N W	10 1	N22-17.0 W109-11.8		N22-16.4 W109-11.0				CP-4
ATC CLEARANCE:									
ENROUTE CLEARANCES:									
TYPE OF FIX: (1) DR (2) RADIO (3) CELESTIAL (4) VISUAL (5) LORAN (6) RADAR (7) DOPPLER - INERTIAL (8) OMEGA (9) INERTIAL (10) OMEGA - INERTIAL									



CNTR AT 22deg 17min N. 109deg  
12min W. AT 01/2240Z. MIN  
SLP 980 mb XTRP FM 1500 FT.

(2319)

CNTR AT 22deg 19.3min N. 109deg  
08min W. AT 01/2307Z. MIN  
SLP 980 mb XTRP FM 1500 FT.

CNTR AT 22deg 10.1min N 109deg  
10.4min W AT 01/2154Z. MIN SLP  
980 mb XTRP FM 1500 FT.

(22032)