

U.S. DEPT. COMM./NOAA/OAO - DATA SECTION WORK FORM NO.1 OAOWF1 FILE

FLT ID: 960808I	FM: MCF	TO: MCF
FLT NO: 96-045	BLK IN: 1725:25	ATA: 1719:30
ETD: 1800	BLK OUT: 1525	ATD: 1535
ETE: 1700	BLK TIME: 2:00 (2.0)	FLT TIME: 1:44:30
SPONSOR ORG: AOC	PROGRAM:	PURPOSE: TEST FLIGHT

OAO PERSONNEL

AC G. McKim	SYS ENG T. LYNCH
CP P. KENUL	DATA SYS J. ROLES
NAV D. RATHBUN	RADAR
FE B. MOORE	DT/ODW
RADIO D. SANS SOUZI	CLD PHYS
FD S. CZYZYK, J. PARRISH	DOPPLER

PARTICIPATING SCIENTIST/VISITORS/OAO

LAST, FIRST NAME	ACTIVITY ON A/C	AFFILIATION
J. GONZALES		AOC/SED
D. OFFITT		AOC/SED
J. McFADDEN		AOC/SPD
J. SMITH		AOC/SED

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

NOAA • AOC • SED Flight Performance Log

Aircraft : N43RF

Project: Hurricane '96

Mission : VAPS Drop TestSED Crew: Lynch, Rols, Offett, Smith, GonzalesFlight ID: 96088IPre-Flight: 12:15Take-Off: 15:36:25Landing: 17:25

System		Pre-Flight	In-Flight	Post-Flight		
N A V	INE #1 Aligned to : 0	✓ TL		-1.1	+1.0	3
	INE #2 Aligned to : 0	✓ TL		11.6	-4	2
	GPS	✓ TL		Lat	Long	GS
R A D A R	Nose	✓ TL				
	L/F R/T SN : 103	✓ TL				
	Tail R&T SN : 202/204	✓ TL				Mod Switch Off ? <u>OK</u>
	ASAU's & RCU	✓ TL				Mod Switch Off ? <u>OK</u>
	MARS Data System	✓ TL				# DATs : 1
P M S	2DG-C Ch 1/64: <u>1</u>	✓ TL				
	2DG-P Ch 1/64: <u>1</u>	✓ TL				
	FSSP Ref VDC: 8.4	✓ TL				
	SEA Data System	✓ TL ①				# DATs : 0
T E M P	Cal High	Cal Low		Cal High	Cal Low	
	Temp #1 30.6	-30.2	28.3 ✓ TL		30.7	-30.2
	Temp #2		28.0 ✓ TL			
	Temp #3 (Starboard)		NI			
	Dewpoint #1		22.2 ✓ TL			
	Dewpoint #2 (AOC)		17.5 ✓ TL			
P R E S S	Attack Angle (AP/DAP)	✓ TL				
	Slip Angle (BP/DBP)	✓ TL				
	Differential (PQ1/PQ2/PQ3)	✓ TL				
	Absolute (PS1/PS2)	✓ TL				
	Radome Transducers	Plugs ? (P) ✓ TL				
F L T L V L	Cabin Transducer (Station 5)	✓ TL				
	Apn-159 SN: 5071-01	✓ TL				Off ? : <u>OK</u>
	Apn-232 SN: 1761	✓ TL				Off ? : <u>OK</u>
	King Liquid Water	✓ TL				
	J&W Liquid Water	✓ TL				
	Down PRT-5 (SST)	✓ TL				
	Side PRT-5 (CO ²)	✓ TL				
M I S C	RAMS Data System	✓ TL	③ ④			# DATs : 1
	ASDL	✓ TL				Off ? : <u>OK</u>
	Epply Radiometers (PSP / PIR)	NI				
	Exterior Walk Around	✓ TL				
	Video	① ② ③ ④				
	AXBT Receivers	NI				
	AXBT Sonobouys	#On Board : 0	# Dropped :		# Good : 0	
	ODW System	✓ TL			# Tapes : 0	
	ODW Dropsondes	#On Board : 0	# Dropped :		# Good : 0	
	FCU	A B C ② ✓ TL			UPS Off ? : <u>OK</u>	
U S E R	Charge Probe	NI				Accelerometers
	HRD Workstation	NI				#1 (2 G) : 8153
	Field Mills	① ② ③ ④ ✓ TL				#2 (2.5 G) : 6684
	Lawrence Water Collector	NI				#3 (3 G) : 5967
	Formvar	NI				#4 (3.5 G) : 2872

Please Note any Discrepancies

[illegible]

NOAA • AOC • SED
N43RF DATA STATION LOG

Project : Hurricanes '96

Mission : Dropsonde Chase

Flight ID : 960808I

Operators : Lynch, Roles, Offutt, Gonzalez, Smith

Take Off : 15:36:25

Landing : 17:25

RAMS DAT 1 On [8 9]: <u>152245</u>	RAMS DAT 1 Off: <u>18:23 Z</u>	CPU Selected: <u>(A)</u> B
RAMS DAT 2 On [8 9]:	RAMS DAT 2 Off:	VCR's Used: <u>(N) (L) (R) (D)</u>
RAMS DAT 3 On [8 9]:	RAMS DAT 3 Off:	
Printer On: <u>152251</u>	Printer Off: <u>17:25</u>	
VCR's On: <u>16:01:10</u>	VCR's Off: <u>17:25</u>	VCR Count:
MARS DAT On:	MARS DAT Off:	
PMS DAT On:	PMS DAT Off:	

ASDL Messages							
Message	Time	Message	Time	Message	Time	Message	Time
<u>(R) V S B</u>	<u>16:06</u>	R V S B		R V S B		R V S B	
<u>(R) V S B</u>	<u>16:34</u>	R V S B		R V S B		R V S B	
<u>(R) V S B</u>	<u>17:08</u>	R V S B		R V S B		R V S B	
<u>(R) V S B</u>	<u>17:10</u>	R V S B		R V S B		R V S B	
R V S B		R V S B		R V S B		R V S B	
R V S B		R V S B		R V S B		R V S B	
R V S B		R V S B		R V S B		R V S B	
R V S B		R V S B		R V S B		R V S B	
R V S B		R V S B		R V S B		R V S B	
R V S B		R V S B		R V S B		R V S B	
R V S B		R V S B		R V S B		R V S B	
R V S B		R V S B		R V S B		R V S B	
R V S B		R V S B		R V S B		R V S B	
R V S B		R V S B		R V S B		R V S B	

R = Recco V = Vortex S = Sonde B = AXBT

Data Station Operator Notes

16:08 Nose VCR "WRNG 1" indicator lit; Recording Stopped

Time	Message	Time	Message
10:00	10:00	10:00	10:00
10:05	10:05	10:05	10:05
10:10	10:10	10:10	10:10
10:15	10:15	10:15	10:15
10:20	10:20	10:20	10:20
10:25	10:25	10:25	10:25
10:30	10:30	10:30	10:30
10:35	10:35	10:35	10:35
10:40	10:40	10:40	10:40
10:45	10:45	10:45	10:45
10:50	10:50	10:50	10:50
10:55	10:55	10:55	10:55
11:00	11:00	11:00	11:00
11:05	11:05	11:05	11:05
11:10	11:10	11:10	11:10
11:15	11:15	11:15	11:15
11:20	11:20	11:20	11:20
11:25	11:25	11:25	11:25
11:30	11:30	11:30	11:30
11:35	11:35	11:35	11:35
11:40	11:40	11:40	11:40
11:45	11:45	11:45	11:45
11:50	11:50	11:50	11:50
11:55	11:55	11:55	11:55
12:00	12:00	12:00	12:00

TIME	TEMP	QFN	STAT	WDR	WSP	AOA	ALT	LEG
1536	TAKEOFF							
1607	-1	-3.3	586	357		43		
1608	008	7.2				42		
1608						43		
1611	DROP 4							
1612	DROP 5							
1622 (7)	PWRN	RTTCK	ON	42		AOA 15°	220 KTS	
1627:25 (7)							240 KTS	
1628:54 (8)							240 KTS	
1639:40	287	4.3						
1641:00	TEMP	QFN	WDR	WSP				
	-1.4	-12.3	311	44	42	LEG 1		
	6	-9.9	329	5.7	43			
164300	-1.1	-3.7	341	8.6	43			
164632	-6	-5.4	310	8.3	42	LEG 2		
164655	-7	-6.5	354	8.6	43			
164832	-4	-11.7	340	9.2	43			
1706	TOWER 43							
1713	30.10	1019.2	10K feet					
1719:30	30.10	1017.2	2700 FT					
1719:30	TOUCHDOWN							

INSTRUMENT CHECK FLIGHT

FLIGHT #1 960808I

TYPE OF DATA

SENSOR OR OPTION

INE	1
Accelerometer	2
Temperature probe	1
Altitude change option (for vertical winds)	RA-232
Static pressure	Rosemount fuselage
Dynamic pressure	Rosemount fuselage
Time source	Micro 99
Constants file	CO3964.CON

Notes:

Radar Altimeter, RA-232, was patched on several occasions due to spikes (1545:00-1546:00, 1606:00-1608:00, 1609:00-1612:00, 1614:00-1615:00, 1617:00-1618:30, 1620:00-1621:00, 1622:00-1624:30, 1627:00-1629:00, 1637:00-1638:00).

The large spike in several instruments between 1622:20-1623:00 is due to 15 degree turn.

	Takeoff	Landing
	-----	-----
Aircraft static pressure:	1022.1 mb	1022.4 mb

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.

Flight Meteorologist: Stan Czyzyk: (813) 828-3310 ext. 3086

DATE : 8/8/96
TO : Chief, AOC Flight Operations
FROM : Pilot/Flight Director, Aircraft 1525 ON 1725 BLOCKTIME
SUBJECT: Hazardous Duty OFF 2.0 N42RF

PURPOSE OF FLIGHT: TEST FLIGHT

Hazardous Duty Pay is required for flight made on 8/8/96
(DATE)

Request based on CLOSE FORMATION FLIGHT

Personnel on board authorized Hazard Pay:

CZYZYK, S

Smith, J

OFFITT, D

GONZALES, J

Lynch, T

Roles, J

Mione, B

Parish, J.

McFadden, J

Sans Sanci, D

PILOT/FLIGHT DIRECTOR: S. Czyzyk

APPROVED: _____ DISAPPROVED: _____

CHIEF, AOC FLIGHT OPERATIONS: _____

DATE 8/8/96		SCHEDULED FIX TIME		AIRCRAFT NUMBER		ARWO	
MANOP READING (PRECEDENCE IMMEDIATE)							
MISSION IDENTIFIER AND OBSERVATION NUMBER							
(ABBREVIATED) (DETAILED) VORTEX DATA MESSAGE							
A	27/1908		Z	DATE AND TIME OF FIX			
B	12 DEG 00 MIN N S			LATITUDE OF VORTEX FIX *			
	81 DEG 23 MIN E W			LONGITUDE OF VORTEX FIX *			
C	850 MB	1377	M	MINIMUM HEIGHT AT STANDARD LEVEL			
D	40		KT	ESTIMATE OF MAXIMUM SURFACE WIND OBSERVED			
E	140 DEG	105	NM	BEARING AND RANGE FROM CENTER OF MAXIMUM SURFACE WIND			
F	204 DEG	43	KT	MAXIMUM FLIGHT LEVEL WIND NEAR CENTER			
G	134 DEG	70	NM	BEARING AND RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND			
H	EXTRAP 994		MB	MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM WITHIN 1500 FT OF SEA SURFACE			
I	17 C/	1556	M	MAXIMUM FLIGHT LEVEL TEMP/PRESSURE ALTITUDE OUTSIDE EYE			
J	19 C/	1555	M	MAXIMUM FLIGHT LEVEL TEMP/PRESSURE ALTITUDE INSIDE EYE			
K	18 C/	NA	C	DEWPOINT TEMP/SEA SURFACE TEMP INSIDE EYE			
L	NA			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 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	12 DEG 00 MIN N S			CONFIRMATION OF FIX: Coordinates and Time *			
	81 DEG 23 MIN E W						
	27/1908		Z				
O	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; 8 - 850 mb; 7 - 700 mb; 5 - 500 mb; 4 - 400 mb; 3 - 300 mb; 2 - 200 mb; 9 - Other.			
P	1 / 3		NM	NAVIGATION FIX ACCURACY/METEOROLOGICAL ACCURACY			
Q				REMARKS			
MAX FL WIND 67 KT NE QVAD 1703Z. EXTRAP FROM 850MB							
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. * CHECK SUM REQUIRED IN WESTPAC.							

POSITION REPORT

The image contains two identical circular protractors, one above the other. Each protractor is a circle with a grid of small squares. The outer edge of each circle has degree markings. The top protractor has markings from 0 to 360 in increments of 30 degrees, with 0 at the top. The bottom protractor has markings from 0 to 360 in increments of 30 degrees, with 0 at the bottom. Both protractors have tick marks every 10 degrees.

POSITION REPORT

- 1. POSITION**
- 2. TIME**
- 3. ALTITUDE**
- 4. NEXT POSITION**
- 5. ETA**
- 6. NEXT POSITION**

[illegible]

2630
8230

INS PERFORMANCE		INS 1	INS 2
BEGIN/ALIGN TIME		1300Z	1700Z
ALIGN STATUS (0-5)		0	0
END NAV TIME		1520	1520
START NAV TIME		1720	1720
DELTA T		2400	2700

TERMINAL ERRORS		INS 1	INS 2
DELTA LAT		-1.1	+1.6
DELTA LON		+1.0	-4.1
RCS		3	2
RADIAL ERROR		1	2

[illegible]