

FLT ID: I980826	FM: KMCF	TO: KMCF
FLT NO:	BLK IN: 0039Z	ATA: 0028Z
ETD: 1500Z 1500Z	BLK OUT: 1452Z	ATD: 1503Z
ETE:	BLK TIME: 9:47	FLT TIME: 9:25
SPONSOR ORG: HRD	PROGRAM: LAND FALL	PURPOSE: H. BONNIE

DAO PERSONNEL

AC McKIM ✓	SYS ENG Mc NAMARA
CP TENNESEN, KENUL	DATA SYS LYNCH ✓
NAV KOZAK ✓	RADAR
FE WADE	BT/ODW CARPENTER
RADIO SANS SOUET	CLD PHYS
FD DAMIANO	DOPPLER

PARTICIPATING SCIENTIST/VISITORS/DAO

LAST, FIRST NAME	ACTIVITY ON A/C	AFFILIATION
BLACK, P. ✓	PI	HRD HRD
BLACK, M. ✓	ASST. PI	HRD
DODGE, P. ✓	RADAR	HRD
SCHUR ✓	OBS	NSSL
WALSH ✓	SRA	ETL
WRIGHT ✓	SRA	ETL
PERKINS, LARRY PERKINS, LARRY	MEDIA	CH. 8 TAMPA/CH-10
MCNERNEY/BROWN	OBS	AOE

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

DWI replace with 92768 (new) ~~40~~ ⁴⁰ ~~sondes~~ ^{MARSA} GPS ANTENNA PROBLEMS. 1214Z

1820Z TEAL 23 17. 10K 32.7 2011Z

NO 143. WX 02A BONNIE EVERY 30 minutes 4 VORTEX 77.8

RAWS NOT WORKING UNTIL 1510Z

1528Z Lost #4 CEM

2028Z

9 1659Z 33° 33' 962MB 78° 01' 963MB

9 1835 33° 33' 962MB 78° 01' 963MB

9 2234Z 33° 56' 77° 52' 963MB SONDE

JW Acting funny mid-way through flt

1222

U.S. DEPT. COMM./NOAA/ORD - DATA SECTION WORK FORM NO.2 DROWF2 FILE

FLT ID: I960826 TIME OFF: 1503Z TIME ON: 0028Z

	A/C T/O	WX STN	A/C LAND	WX STN
PRESSURE	<u>1010.9</u>	<u>29.87</u>	<u>1010.5</u>	<u>29.86</u>

NO DATA DISPOSITION/DATE/QUALITY

1/SEC FLT LVL TAPES		
FAST FLT LVL TAPES		
RADAR TAPES	<u>2</u>	
DOPPLER TAPES		
ODW CASSETTES		
HARD COPIES		
<u>PMS</u>	<u>2</u>	
AXBT		
AXCP		
<u>GPS</u>	<u>41</u>	<u>37 messages</u>

PHOTOGRAPHY

	FWD	LS	RS	VERT
ON				
OFF				
RATE				

REMARKS

I 980826
962 962

1 30

5

TIME	LAT	LOU	TRK	HD	WD	WS	TA	TD	PA	GA	SP	PS	CLR	PG
151100	2749	8247	339	340	183	6	14.6	6.0	2195	2316	1012.5	774	CLR	76.0
152600	2849	8232	11	12	21	6	5.4	-31.5	4293	4504	1002.5	593.2	CLD ABV	64.9
154600	3007	8154	32	31	351	14	1.7	-8.2	4605	4842	1005.2	569.2	HAZE	67.2
160600	3120	8111	42	38	351	30	2.8	-25.9	4657	4900	1003.5	565.2	HAZE	75.1
162849	3230	7958	70	61	340	43	13.4	11.5	2379	2424	1003.0	758.2	DROP	71.9
163412	3237	7935	64	52	345	57	14.8	10.4	2379	2397	998.5	758.2	DROP	74.5
164408	3254	7851	67	50	336	74	13.8	13.2	2491	2426	987.4	747.8	DROP	
164835	3300	7835	67	45									DROP	73.6
164945													DROP	
165630	3316	7804											DROP	
165913	3321	7752											DROP	
170319	3328	7735											DROP	
170733	3341	7719											DROP	
170819													DROP	
170849	3346	7715											DROP	
171303	3359	7659											DROP	
171955	3417	7633											DROP	
172745	3419	7606											DROP	
173246	3439	7552											DROP	
174223	3510	7517											DROP	
180007	3447	7610											DROP	
180410	3437	7617											DROP	
181752	3429	7722											DROP	
182148	3419	7733											DROP	
182247	3416	7735											DROP	
182433	3411	7739											DROP	
183510	3333	7801											DROP	
184823	3315	7840											DROP	
184939	3314	7845											DROP	
185753	3303	7918											DROP	
190328	3249	7938											DROP	
191500	3222	7954	119	114	332	44	17.0	9.3	2089	2128	1003.0	786.4	CLD ABV	71.3
193208	3145	7831	120	127	261	42	15.2	11.8	2089	2132	1004.9	786.5	CLD ABV	73.3
193953	3134	7738			252	51							DROP	70.3
194700	3204	7759	0	349	241	57	15.0	12.7	2089	2109	1002.0	786.3	RW -	73.8
195136	3224	7758											DROP	
195634	3244	7757			256	71							DROP	
195959	3258	7757			269	79							DROP	
200319	3310	7756											NO W	DROP
200736	3328	7755			274	35							NO W	DROP
201100	3343	7752											NO W	DROP
202700														(31)
204100	3339	7655	99	122	190	96	15.5	14.1	2231	2157	989.6	772.4	RW +	76.0
205400	3332	7554	98	116	195	72	15.0	12.1	2129	2156	1002.9	782.9	CLD	72.3
210800	3415	7531	359	1	174	64	15.3	15.2	2124	2173	1005.3	782.5	CLD	73.3
212200	3524	7530	9	16	163	52	15.8	12.1	2066	2137	1007.1	788.2	COAST	73.0
214500	3253	7538	179	176	152	40	14.8	12.2	2069	2144	1008.8	788.1	COAST	68.4
220248	3500	7607			168	60							DROP	
220736	3450	7621			162	71							DROP	
222107	3428	7709			146	90							DROP	
222528	3418	7726			137	73							DROP	
223402	3356	7752											DROP	
223950	3343	7808											DROP	
224805	3343	7823											DROP	
224742	3342	7841											DROP	
250223	3341	7852											DROP	

OVER

H. BONNIE

Flight #04 1980826 (Landfall at Wilmington, NC)

<u>DATA TYPE</u>	<u>SENSOR or OPTION</u>
INE	1
Accelerometer	1
Temperature Probe	1
Altitude (for vertical wind)	RA159
Static Pressure	Fuselage
Dynamic Pressure	Fuselage
Dewpoint Probe	1

Notes:

There were two data gaps: 171731Z - 171750Z
222001Z - 222020Z

All sensors functioned optimally.

Dewpoint temperature exceeded ambient temperature several times during the mission when heavy precip was encountered.

Downward spikes in radar altimeter data are a result of overflying land.

Aircraft inertial positions were re-navigated 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 wind speeds, respectively, derived from Dave Jorgensen's vertical wind algorithm. It is recommended that these values be used for vertical wind analysis.

	<u>Takeoff</u>	<u>Landing</u>
Aircraft static pressure	1010.9mb	1010.5mb
Corrected tower pressure	1010.5mb	1010.5mb

Flight Meteorologist: A. Barry Damiano, (813) 828-3310 ext. 3073

DATE 8/26/98		SCHEDULED FIX TIME		AIRCRAFT NUMBER 43RF		ARWO DAMIANO	
MANOP HEADING (PRECEDENCE IMMEDIATE)							
MISSION IDENTIFIER AND OBSERVATION NUMBER NOAA3 WX02A BONNIE							
(ABBREVIATED) (DETAILED) VORTEX DATA MESSAGE							
A	26/1659		Z	DATE AND TIME OF FIX			
B	33 DEG 21 MIN N S			LATITUDE OF VORTEX FIX *			
B	77 DEG 52 MIN E W			LONGITUDE OF VORTEX FIX *			
C	NA MB NA	M	MINIMUM HEIGHT AT 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	325 DEG 96	KT	MAXIMUM FLIGHT LEVEL WIND NEAR CENTER				
G	235 DEG 44	NM	BEARING AND RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND				
H	962	MB	MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM WITHIN 1500 FT OF SEA SURFACE				
I	C/	M	MAXIMUM FLIGHT LEVEL TEMP/PRESSURE ALTITUDE OUTSIDE EYE				
J	C/	M	MAXIMUM FLIGHT LEVEL TEMP/PRESSURE ALTITUDE 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 *			
N	DEG MIN E W						
N	26/1659	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 NOAA3 WX02A BONNIE OB KWBC MAX FLT LEVEL WIND: 116 KNOTS NE QUAD 1708Z SEA LEVEL PRESSURE FROM DROPSONDE AT 8000 FEET						

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.

ABBREVIATED/DETAILED VORTEX DATA MESSAGE

TY 80826

26744

RENAV DNE 1

8601 8603

DATA-GAPS

171731-171734 } 171731-171750

171738-171751

222001-222020

153200, -.3, .1
163200, -.6, .1
173200, -1.2, .1
183200, -1.9, .6
193200, -2, +1
203200, -1.9, 1.4
213200, -1.9, 2.1
223200, -2, 2
233200, -1.8, 1.7
003200, .2, 1.9 → 000200, -.8, 2.2

BPF check

FD 170300, 172000,
173000, 180100, 182500,
184700, 211630, 213500

RA1=RA232

150001-150500

RA1=RA3

150501-1530

look at

look at heading

RA1=RA232

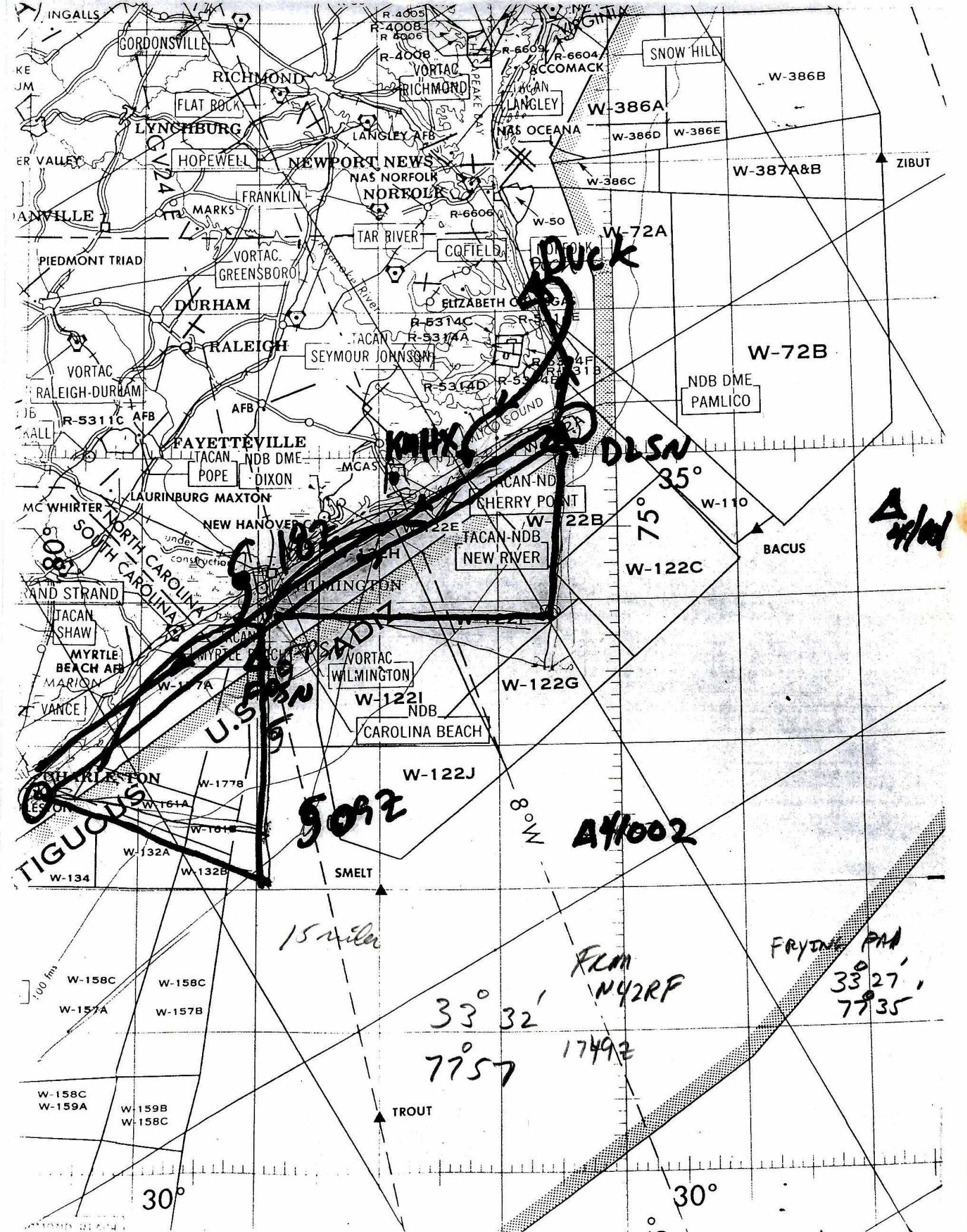
002700-003200

~~003200-003700~~

check PSF m ACT

SN 52723/92616

psf
pdr



843 3338

POSITION REPORT

1. POSITION 60

2. TIME 1400

3. ALTITUDE

4. NEXT POSITION

5. ETA

6. NEXT POSITION

S	ALT	TAS	NEXT PT	DIST	TIME	ETA	REMARKS
0							chocks / kts
							TAXI
0	14K	272					Level off
12	>	227			APPROX 6000 BACKUS FIVE		FIVE
	8K						f BOUND
	7K						f BOUND
9	7K	239					f r 1
	7K						f BOUND
	7K						f BOUND
	7K						f BOUND
							chocks

K EOF F

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NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
AIRCRAFT OPERATIONS CENTER**