

FLT ID: <u>I950503</u>	FM: <u>OKC</u>	TO: <u>OKC</u>
FLT NO: <u>95-35</u>	BLK IN: <u>0147Z</u>	ATA: <u>0141Z</u>
ETD: <u>1930Z</u>	BLK OUT: <u>1921Z</u>	ATD: <u>1930Z</u>
ETE:	BLK TIME: <u>6:26</u>	FLT TIME: <u>6:11</u>
SPONSOR ORG: <u>NSSL</u>	PROGRAM: <u>VORTEX95</u>	PURPOSE: <u>PRE-CONVECTIVE</u>

DAO PERSONNEL

AC <u>KENNEDY</u>	SYS ENG <u>LYNCH</u>
CP <u>TENNESEN</u>	DATA SYS <u>PRADAS-BERGNES</u>
NAV <u>STRONG</u>	RADAR
FE <u>WADE</u>	BT/ODW <u>McNAMARA</u>
RADIO <u>SANS SOUCI</u>	CLD PHYS
FD <u>DAMIANO</u>	DOPPLER

PARTICIPATING SCIENTIST/VISITORS/DAO

LAST, FIRST NAME	ACTIVITY ON A/C	AFFILIATION
<u>WATSON</u>	<u>PT</u>	<u>NSSL</u>
<u>ZIEGLER</u>	<u>ASST. PT</u>	
<u>SHEPHERD</u>	<u>RADAR</u>	
<u>LEWIS</u>	<u>RADAR</u>	
<u>DOSWELL</u>	<u>OBV</u>	
<u>WESTWATER</u>	<u>RADIOMETER</u>	<u>NOAA ETL</u>
<u>TROKHIMOVSKI</u>	<u>RADIOMETER</u>	<u>NOAA ETL</u>

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

Gerber LWC has .023 offset at T/O.

KING LWC not operational

32°34'
98°58'

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

FLT ID: 1950503 TIME OFF: 1930Z TIME ON: 0141Z

	A/C T/O	WX STN	A/C LAND	WX STN
PRESSURE	961.8		964.5	

NO DATA DISPOSITION/DATE/QUALITY

1/SEC FLT LVL TAPES

1

FAST FLT LVL TAPES

1

RADAR TAPES

1

DOPPLER TAPES

ODW CASSETTES

HARD COPIES

PMS

1

AXBT

AXCP

ODW

PHOTOGRAPHY

	FWD	LS	RS	VERT	
ON					
OFF					
RATE					

REMARKS

NOAA • AOC • SED Flight Performance Log

22 March 95

Aircraft : N43RF

Project: VORTEX • ARM '95

Mission : VortexSED Crew: Lynch, JCPB, McNamaraFlight ID : 950503IPre-Flight: 16:15ZTake-Off: 19:30Landing: 01:41

System			Pre-Flight	In-Flight	Post-Flight		
NAV	INE #1	Aligned to : <u>5</u>	✓ TL		<u>0</u>	<u>+9</u>	<u>6</u>
	INE #2	Aligned to : <u>1</u>	✓ TL		<u>-3.8</u>	<u>+2.0</u>	<u>4</u>
	GPS		✓ TL		Lat	Long	GS
RADAR	Nose		✓ TL				
	L/F	R/T SN : <u>102</u>	✓ TL		Mod Switch Off ? ✓		
	Tail	R&T SN : <u>202/201</u>	✓		Mod Switch Off ? ✓		
	ASAU's & RCU		✓				
	MARS Data System		① ✓ ↓		# DATs : <u>1</u>		
PMS	2DG-C	Ch 1/64: <u>1</u>	✓ JCPB	④			
	2DG-P	Ch 1/64: <u>1</u>	✓				
	FSSP	Ref VDC:	✓				
	SEA Data System		✓ ↓		# DATs : <u>1</u>		
TEMP		Cal High	Cal Low			Cal High	Cal Low
	Temp #1	<u>30.6</u>	<u>-30.2</u>	✓ TL		<u>30.4</u>	<u>-30.2</u>
	Temp #2	<u>30.5</u>	<u>-30.3</u>	✓		<u>30.4</u>	<u>-30.2</u>
	Temp #3	(Starboard)		✓			
	Dewpoint #1			✓			
	Dewpoint #2			✓ ↓			
PRESS	Attack Angle (AP/DAP)		✓ TL				
	Slip Angle (BP/DBP)		✓ TL				
	Differential (PQ1/PQ2/PQ3)		✓ TL				
	Absolute (PS1/PS2)		✓ TL				
	Radome Transducers		Plugs Out ?	③			
FLTLVL	Apn-159	SN: <u>5071.01</u>	✓ TL	②			
	Apn-232	SN: <u>11699</u>	✓ TL				
	King Liquid Water		NU				
	J&W Liquid Water		RJM				
	Down PRT-5 (SST)		✓ TL				
	Side PRT-5 (CO ²)		✓ TL				
	Up PRT-5		Open ? ✓ TL		Closed ? ✓ TL		
	RAMS Data System		✓ TL		# DATs : <u>2</u>		
USE	Exterior Walk Around		RJM				
	Video	① ② ③ D	✓ TL				
	FCU	-A-B-C	✓ TL				
USE	Charge Probe		NU		Accelerometers		
	Gerber Liquid Water	<u>1.6/1.8</u>	✓ TL		#1 (2 G) : <u>8148</u>		
	Field Mills	① ② ③ ④	✓ TL		#2 (2.5 G) : <u>6604</u>		
	ETL Dual-Channel uWave Radiometer				#3 (3 G) : <u>5967</u>		
	Epply Radiometers (PSP / PIR)		✓ TL		#4 (3.5 G) : <u>2892</u>		
	2 Meter Repeater / Duplexer		✓ TL				
	Cappiccuno Machine		✓				

Please Note any Discrepancies

[illegible]



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Rockville, MD 20852-3019

OFFICE OF NOAA CORPS OPERATIONS

Aircraft Operations Center
P.O. Box 6829
Tampa, Florida 33608-0829

MEMORANDUM FOR: DR. ROBERT ~~MAMADDOX~~, DIRECTOR NSSC

FROM: CAPT George C. Player III, NOAA
Acting Director, Aircraft Operations Center

SUBJECT: Hazard Duty Flight

The mission flown on AOC aircraft # N43RF on 5/3/95
has been declared hazardous. The following personnel from your
laboratory participated in this mission.

WATSON LEWIS
SHEPHERD DOSWELL
ZIEGLER

For purposes of computing allowable hazard duty time, the hazard
period during this mission was from 2:30pm local time on
5/3/95 until 9pm on 5/3/95.



VORTEX95/ARM95

FLIGHT #13 I950503 (VORTEX, Storms near Fredrick, OK)

TYPE OF DATA	SENSOR OR OPTION
INE	2
Accelerometer	2
Temperature probe	1
Altitude change option (for vertical winds)	PA
Static pressure	Rosemount fuselage
Dynamic pressure	Rosemount fuselage
Time source	Micro 99
Constants file	CO3956.CON

Notes:

There were no time/data gaps.

The King Liquid water probe was not operational.

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	961.8mb	964.5mb
Corrected tower pressure	N/A	N/A

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

I950503

INE 2 RENAV

NO GAPS

DAP pub.

(2010)

214500, -0.7, +0.4

224500, -2.7, +1.0

234500, -3.3, +1.4

004500, -2.6, +1.0

014500, -3.9, +2.1

PC+RL 2207 INE1

Fly RA159 at T/O

013430 - 01452 (RA159=RA232)

I 950503

TIME	LAT	LONG	TRK	HD	WD	WS	PA	GA	TA	TD	SP	PS		PO
193300	3516	9740	196	198	222	21	1675	1268	8.3	9.3	—	818.1	ABV CLD	65.4
					251	31			6.1	-10.9		700		
194200	3451	9801	223	227	249	32	3109	2751	5.1	-10.9	—	691.2	ABV CLD	73.2
195600	3427	9848	255	254	244	32	3123	2815	4.6	-15.1	—	690.3	ABV CLD	65.7
200100	3415	9859	179	186	248	28	3142	2831	4.6	-18.1	—	688.4	ABV CLD	64.1
201100	3342	9905	242	239	139	17	595	141	25.1	16.2	—	942.7	CLR	64.8
	3338	9913			212	13			28.4	7.7				
201600	3332	9923	244	244	222	12	155	29.6	4.4	—	—	938.7	CLR	62.0
202100	3326	9941	243	245	247	20	158	29.6	1.0	—	—	933.1	CLR	67.2
202330	end 500 FT RUN				3722	9950								
202600	start 3000 FT RUN E													
	3822	9941	62	62	244	30	1389	909	22.4	0	—	857.2	CLR	64.9
203200	3334	9919	60	60	234	20	1272	965	22.0	.4	—	859.0	CLR	71.2
	9911				205	18			20.8	9.4				
203730	3342	9857	160	165	207	23	1332	925	19.6	11.3	—	863.4	CLR	65.6
204300	3324	9852	168	174	220	23	1332	925	19.6	12.3	—	863.2	CLR	63.6
204920	3305	9844	244	239	130	22	556	155	22.5	18.0	—	846.4	CLR	63.3
205430	3256	9903	237	238	229	13		149	30.2	5.8	—	944.6	CLR	63.2
205740	end 500 ft run W													
210000	start 3000 ft run E													
	3250	9913	54	61	227	22	1311	911	22.6	3.5	—	864.5	CLR	73.1
	9856				191	23			21.1	11.3		865.5	DRY LNE	
210500	3300	9854			192	25			20.0	14.4		865.7	DRY LNE	
210800	end 3000 ft run													
211020	start 5000 ft run W													
	3307	9839	243	244	240	27	1845	1451	15.7	8.2	—	810.8	CLR	69.4
211430	3300	9853	242	242	227	20	1895	1531	16.3	3.7	—	805.5	BLW CLD	60.0
211700	3257	9901	238	240	250	18	1888	1548	16.5	1.2	—	805.1	BLW CLD	62.7
212020	end 5000 ft run													
212620	3237	9916	177	183	252	15	659	147	30.3	5.0	—	937.2	CU ABV	65.3
212830	start 500 ft run E													
	2232	9911	59	59	234	8	640	170	29.5	9.5	—	939.2	CU ABV	71.2
213200	3239	9859	56	56	251	10	606	169	29.4	10.4	—	942.4	CU ABV	71.0
213400	3243	9852	58	62	169	14	606	129	27.2	17.4	—	941.6	DRY LNE	70.4
213630	end 500 ft leg				133	16			23.5	19.0				
213900	start 3000 ft leg W													
	3250	9841	240	238	205	23	1294	917	19.3	15.7	—	867.3	CLR	73.5
214100	3247	9847	239	237	200	18	1294	900	20.1	15.2	—	867.1	CU ABV	68.5
214400	3242	9858	236	237	216	13	1303	906	22.7	6.2	—	868.0	DRY LNE	67.6
214800	3234	9911	235	236	250	16	1289	837	23.5	4.2	—	867.4	CU ABV	60.4
214830	end 3000 ft leg													
215100	start 5000 ft leg E													
	3234	9913	60	59	264	23	1901	1485	17.3	2.1	—	804.5	CU ABV	66.9
215400	3240	9901	62	62	250	18	1910	—	16.4	8.1	—	804.1	CU ABV	69.5
215630	3245	9849	61	62	236	26	1907	1524	15.7	9.0	—	804.3	CU ABV	64.5
215830	end 5000 ft leg													

I950503

TIME	LAT	CON	TRK	HD	WD	WS	PA	GA	TA	TD	SP	PS		PC
220130	start	500 ft	run	W										
220130	3249	9842	244	239	137	24	599	168	23.4	19.0	-	943.2	CU ABV	72.2
220500	3244	9855	241	241	223	19	610	166	29.9	8.5	-	942.6	CU ABV	71.4
220800	3238	9905	237	236	210	11	639	149	30.2	6.1	-	939.5	CU ABV	65.2
220915	end	500 ft	leg											
221130	start	3000 ft	leg	E										
221130	3233	9909	55	55	644	18	1324	888	23.2	4.9	-	863.5	CU ABV	70.1
221530	3242	9855	53	54	212	18	1324	920	22.7	7.2	-	864.9	CU ABV	80.4
221530	3245	9849			212	23			21.0	13.6	-		DRY LNE	
221830	end	3000 ft	leg											
222040	start	5000 ft	leg	W										
222040	3451	9841	239	239	281	32	1841	1495	16.7	6.9	-	810.7	CU ABV	73.8
222500	3242	9854	233	235	234	26	1841	1456	17.8	3.3	-	810.7	CU ABV	63.7
222800	end	5000 ft	leg											
223100	3235	9903	59	60	226	16	664	189	30.3	6.5	-	939.0	CU ABV	55.4
223340	start	500 ft	leg	E										
223340	3240	9855			175	13			28.3	16.6	-		DRY LNE	
223600	3245	9845	53	59	147	21	631	184	24.7	18.9	-	939.5	CU ABV	73.6
223650	end	500 ft	leg											
223840	3249	9846	228	226	203	23	1284	898	22.0	12.0	-	867.8	3000 FT	67.2
224100	3244	9854	230	231	229	18	1281	890	23.4	5.4	-	868.0	DRY LNE	68.2
224500	3235	9906	240	243	245	16	1290	875	24.1	4.1	-	867.9	CU ABV	70.8
224600	end	3000 ft	leg											
224830	start	5000 ft	leg	E										
224830	3232	9911	56	55	239	15	1915	1523	17.2	5.4	-	802.0	CU ABV	63.5
225200	3239	9858	60	60	260	20	1911	1545	17.5	2.2	-	803.4	CU ABV	63.2
225540	end	5000 ft	leg											
225540					246	31			17.0	3.5	-	803.1		
230400	3234	9851	221	220	237	18	1917	1520	17.0	5.6	-	803.3	CU ABV	68.5
230800	3224	9858	182	186	235	17	1917	1439						
231900	3240	9832	221	216	135	24	631	156	23.2	19.3	-	939.5	CU ABV	63.4
232420					172	22			26.6	17.3	-	932.5		
232900	3228	9848	52	55	220	18	1409	929	21.1	12.9	-	855.12		64.5
233500	3248	9842	356	346	257	44	3279	2989	4.0	-5.2	-	676.5		64.9
234400	3322	9850	347	340	260	41	4520	4302	-8.6	-12.2	-	580.0		67.0
234900	3343	9856	334	325	257	50	5128	4903	-10.1	-25.1	-	531.0		68.4
235800					259	46			-10.4	-26.9	-			
000230	3426	9912	93	93	277	44	5127	4876	-10.7	-29.4	-	531.3	- CLD LNE	67.5
000530	3426	9853	92	93	267	52	5126		-11.3	-28.4	-	531.1	CLD LNE	71.9
001640	3430	9858	89	93	258	40	3268	3266	3.2	-8.1	-	677.5	CLD LNE	73.5
002120	3427	9842	280	275	244	45	3264	2949	3.3	-7.2	-	677.8	CLD LNE	69.6
002640	3427	9847	90	93	257	42	3265	2972	3.3	-7.9	-	677.7	CLD LNE	64.4
003100	3429	9833	247	246	231	32	3267	2979	2.1	-4.4	-	676.7	CLD LNE	68.6
003910	3422	9847	70	70	301	8	1259	887	18.7	13.2	-	871.0	CLD LNE	67.7
004200	3428	9819	248	251	339	7	1429	1095	16.3	10.4	-	853.1	CLD LNE	66.2
005220	3424	9834	73	71	309	14	1482	1074	16.3	11.4	-	852.7	CLD LNE	66.9
005400	3426	9826	75	73	308	16	1432	1101	14.6	12.6	-	853.0	CLD LNE	70.7

U.S. GOVERNMENT PRINTING OFFICE: 1980-765-012 1119

DATE : 5/3/95

TO : Chief, AOC Flight Operations

FROM : Pilot/Flight Director, Aircraft N43RF ON 0147Z BLOCKTIME
OFF 1921Z 6:26

SUBJECT: Hazardous Duty

PURPOSE OF FLIGHT: VORTEX 95 PROJECT

Hazardous Duty Pay is required for flight made on 5/3/95
(DATE)

Request based on FLYING AROUND THUNDERSTORMS

Personnel on board authorized Hazard Pay:

WADE

DAMIANO

LYNCH

PRADAS-BERGUES

MCMANARA

SANS SOUCI

PILOT/FLIGHT DIRECTOR:

A. Barry Damiano

APPROVED: _____

DISAPPROVED: _____

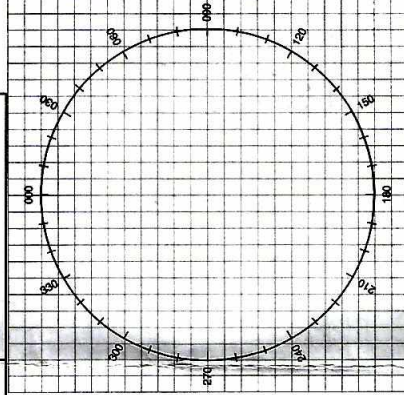
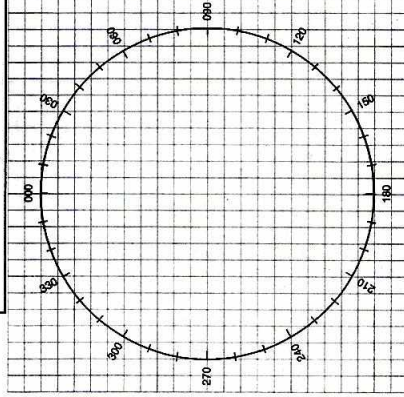
CHIEF, AOC FLIGHT OPERATIONS: _____

CLEARANCES

[illegible]

MISSION LOG

PAGE OF



POSITION REPORT

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

EMERGENCY MESSAGE

TRANSMIT THE FOLLOWING MESSAGE TO ANY AGENCY ON THE AIR-GROUND FREQUENCY IN USE. IF UNABLE TO ESTABLISH COMMS, ATTEMPT CONTACT ON ANY OF THE FOLLOWING EMERGENCY FREQUENCIES:

UHF/VOICE	VHF/VOICE	MF/VOICE	HF/CW	MF/CW
243.0	121.5	2182 KHZ	8364 KHZ	500 KHZ

MAYDAY, MAYDAY, MAYDAY
THIS IS NOAA _____, NOAA _____, NOAA _____

- POSITION _____ N/S _____
E/W AT _____ Z _____

- HEADING _____ TRUE/MAG _____

-AT_____KTS TRUE/INDICATED

- FLIGHT LEVEL OR ALTITUDE

- WE ARE A P-3 AIRCRAFT WITH _____ SOULS ON BOARD _____

- NATURE OF EMERGENCY

- ASSISTANCE DESI

- PILOT INTENTIONS
- WE HAVE

ENDURANCE REMAINING

[illegible]