

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

FLT ID: 96031814	FM: MCF	TO: MFC
FLT NO: 96-004	BLK IN: 2216	ATA: 2208 +5
ETD: 18Z	BLK OUT: 1830	RTD: 1840
ETE: 3+30	BLK TIME: 3:46 (3.8)	FLT TIME: 3828 (3.5)
SPONSOR ORG: ERL	PROGRAM: OZONE	PURPOSE: TEST FLIGHT

OAO PERSONNEL

AC PHILIPSBORN	SYS ENG DOLES ✓
CP MCKIM	DATA SYS DEGGAN ✓
NAV RATHBUN ✓	RADAR BARR ✓
FE WADE ✓	BT/ODW
RADIO	CLD PHYS
FD PARRISH ✓	DOPPLER

PARTICIPATING SCIENTIST/VISITORS/OAO

LAST, FIRST NAME	ACTIVITY ON A/C	AFFILIATION
HUBLER, G. ✓	P.I.	ERL AERONAUT
SHERIDAN, P. ✓		
RYEASON, T. ✓		
KUSTER, W. ✓		
WILLIAMS, J. ✓		
FRIED, A. ✓		
HOLLOWAY, J. ✓		
TOBSON, T. ✓		

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

CB 1200 AT T.O. 2.5-3K BL
 Big split between VOR 1 & VOR 2 (Nav). VOR 2 bad.
 191830 - Bal TD.

U.S. DEPT. COMM./NOAA/OAD - DATA SECTION WORK FORM NO.2 OADWF2 FILE

FLT ID: TIME OFF: TIME ON:

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

NO DATA DISPOSITION/DATE/QUALITY

1/SEC FLT LVL TAPES		
FAST FLT LVL TAPES		
RADAR TAPES		
DOPPLER TAPES		
ODW CASSETTES		
HARD COPIES		
AXBT		
AXCP		
ODW		

PHOTOGRAPHY

	FWD	LS	RS	VERT	
ON					
OFF					
RATE					

REMARKS

96031814 OZONE TEST FLIGHT

Time	Lat	Long	TK	WD	WS	RA	GA	TA	TD	SP	PS				
1830	2750.9	8229.6				65		23.6	19.3		1005.3	BLK			
184045	2750.3	8232.1	210	205	41.5	305	247	20.8	18.8	1005.5	960.2				
184545	2737	8229	82	220	39.0	1427	1500	14.7	6.7	1005.8	886.1				
190145	27078	8226.9	129	252	37.9	3108	3161	8.0	-2.7	1001.1	691.4				
1907	2049	8121	2	244	38	3109	3186	10.0	-11.6	1001.7	691.2	LABELE			
191745	2113.7	8138.4	330	243	38.5	3110	3156	8.8	-12.1	999.7	691.4				
192730	27280	8149.5	147	248	40.2	3110	3154	8.4	-10.5	999.7	761.5				
1933	↓	to 1.5K													
21441	-	1.5K													
194555	27227	82028	204	210	32	535	453	22.5	15.9	1000.8	950.7				
195130	15	STACKS, BLOT LITTLE				2100K									
195845	2751	8222	83	212	34	441	363	22.7	19.9	1002.1	962.1				
200340	21524	8227	236	205	39	441	380	21.9	17.9	1004.2	961.3				
201115	27326	82385	223	213	46	438	382	21.8	18.6	1004.6	961.7	→ PT F			
202915	2651														
2030	↑	41K	↓	to 1K											
2035	27189	8256.9	2	218	41	↑		24.1	18.7	1004.7	942.5	↑ 11K/min ACETACK			
204325	2721	8244	130	236	34	2525	2552	10.0	3.7	1005.2	759.9				
205343	27136	82423	AT	15K	now →	6 ↑	2K/min to 20K					↑ to 20K			
210000	2658.5	8255.2	188	249	45.6	3592	3690	5.0	-21.3	1003.7	687.0	↑ to 20K			
210830	2627	8258	180	246	71	6109	6346	-11.3	-31.8	1002.3	464.9	-20K			
211715	2553.0	82595	211	256	68	6106	6353	-11.5	-30.4	1004.3	465.0				
212115	2607	8301	↑	to 23K											
212710	2636.7	82526	5	254	80.9	7333	7621	-21.6	-27.8	1007.4	391.7	-24K			
213530	2655	8258	162	252	80.4	7382	7613	-21.6	-25.3	1006.3	391.8	END OF 24K, RES LOOK			
214030	↓	to 1K													
2145	2705.1	8251.6	5	248	46	4247	4338	0.4	-16.2	1003.3	606.4	↓ to land			
215615	27404	8233.5	48	237	40.2	840	800	19.5	15.8	1004.7	922.4				
220415	2755.9	8224.6	238	229	40.9	568	500	21.2	19.2	1002.9	946.3				
2216	2751.0	8229.6				78		23.2	19.4		1003.9	1 in Bikes			

Test Flight out of Tampa:

After takeoff head direction of Pt. B and climb to 10 kft for calibration.

Try to identify plume direction of Crystal River power plant during overflight.

} 30 min

At or near Pt. B reverse direction and head direction of Crystal River Power Plant.
After calibration descent into PBL, 1500 ft AGL.

Try to intercept Crystal River Power Plant plume either according to earlier identification of plume direction or by flying box C1 through C4 around plant. After crossing of plume, reverse direction for another two intercepts of plume.

Zero test of NOy instrumentation, 10 min: Head west for 5 min and return.

} 30 min

Head direction of Pt. D within the PBL.

{If the urban Tampa/ St. Petersburg and power plant plumes are intercepted during the transit to Pt. D, reverse direction for another two intercepts (optional). This will be followed by another NOy instrument zero test, 10 min.} {optional}

} 30 - 40 min

Contrast of PBL and free troposphere between Pt. D and Pt. E. and Pt. D

Contrast moist PBL and dry free troposphere: 5 min within PBL, rapid climb to

free troposphere, 5 min free troposphere, rapid descent into PBL etc (repeat exercise three times.

30 min

Head direction of Pt. F (over the Gulf of Mexico) at 1500 kft MSL.

During transit use time for calibration of NOy instruments at low altitude.
Pitch, Roll, and Yaw maneuvers?

20 min

At Pt. F fly 3 racetrack profiles from 500 ft MSL to 10000 ft MSL at 3 climb rates ~~500 ft/min~~ (optional), 1000 ft/min, 2000 ft/min. Shift location of racetrack profiles progressively upwind in order to avoid P3 exhaust.

30-70 min

Head direction of Pt. G and Climb to 20000 ft MSL, for final calibration. After calibration climb to max altitude and remain there for at least 1 PAN sample and maybe 1 HC sample.
Pitch, Roll, and Yaw maneuvers?

10-15 min

5 min
PAN Sample

30 min

Return to Pt. A

15 min

Pt. A McDill

Pt. B 29 40 -82 40

Box around Crystal River Stack (28 58, -82 42)

Pt. C1 29 04 -82 48

Pt. C2 29 04 -82 36

Pt. C3 28 52 -82 36

Pt. C4 28 52 -82 48

Pt. D 27 15 -82 00

Pt. E 26 50 -81 00

Pt. F Point over Gulf of Mexico for racetrack profiles

(Example Pt. F 27 15 -83 00

Pt. G 29 00 -83 00)

215 min - 265

3:35 hrs 4 hr 25 min

DATE : 19 March 96

TO : Chief, AOC Flight Operations

FROM : Pilot/Flight Director, Aircraft 0422F ON 2216Z BLOCKTIME
OFF 1830Z 3.7

SUBJECT: Hazardous Duty

PURPOSE OF FLIGHT: OZONE TEST FLIGHT

Hazardous Duty Pay is required for flight made on 18 March 96
(DATE)

Request based on Flight with hazardous gases in
the aircraft cabin.

Personnel on board authorized Hazard Pay:

Wade, S.

Parrish, J.

Coles, J.

Delgado, J.

Barr, J.

PILOT/FLIGHT DIRECTOR: [Signature]

APPROVED: X

DISAPPROVED: [Signature]

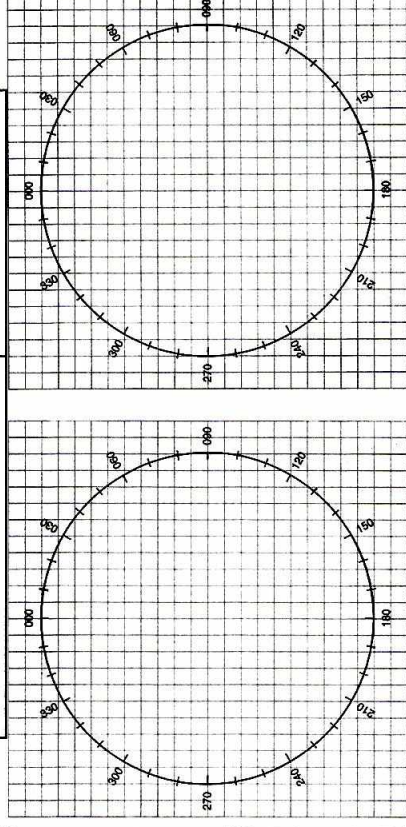
CHIEF, AOC FLIGHT OPERATIONS: [Signature]

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

- 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 DESIRED

- PILOT INTENTIONS

-WE HAVE _____ENDURANCE REMAINING _____

[illegible]