FLT ID: 950706I	FM: KBNA	TO: KBNA
FLT NO: 95-023	BLK IN: 0036Z	ATA: 0030Z
ETD: 2100Z	BLK OUT: 2050Z	ATD: 2058Z
ETE: 3+30	BLK TIME: 4+46 (4.8)	FLT TIME: 4+32 (4.5)
SPONSOR ORG: NOAA	PROGRAM: OZONE 95	PURPOSE: FLT #10 INTERCOMPARISON w/G1

OAO PERSONNEL

AC	PHILLIPSBORN ✓	SYS ENG	BARR ✓
CP	O'MARA ✓	DATA SYS	
NAV	RATHBUN ✓	RADAR	
FE	TORREY ✓	BT/ODW	
RADIO	ARNASON ✓	CLD PHYS	
FD	BOGERT ✓	DOPPLER	McFadden ✓

PARTICIPATING SCIENTIST/VISITORS/OAO

LAST, FIRST NAME	ACTIVITY ON A/C	AFFILIATION
Hübler	P.I.	ea/CIRES/NOAA
Sheridan - Zhao		"
Ryerson - Kuster		"
Farmer - Williams		
Parrish - Jobson		
Ehrenfeld - Verhulst		
E. Cowling		
L. Newman		

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

21 S.O.B.

QNH – 3012/1019.3 mb 3009/1018.4 mb
PS – 997.6 993.8 mb
SP – 997.1 1003.3 mb

U.S. DEPT. COMM./NOAA/OAO - DATA SECTION WORK FORM NO.2 OAOWF2 FILE

FLT ID: 950706H TIME OFF: 2058Z TIME ON:

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

	NO	DATA DISPOSITION/DATE/QUALITY
1/SEC FLT LVL TAPES	1	
FAST FLT LVL TAPES	Ø	
RADAR TAPES		
DOPPLER TAPES		
ODW CASSETTES	Ø	
HARD COPIES	Ø	
PMS DAT		
AXBT	Ø	
AXCP	Ø	
ODW	Ø	

PHOTOGRAPHY

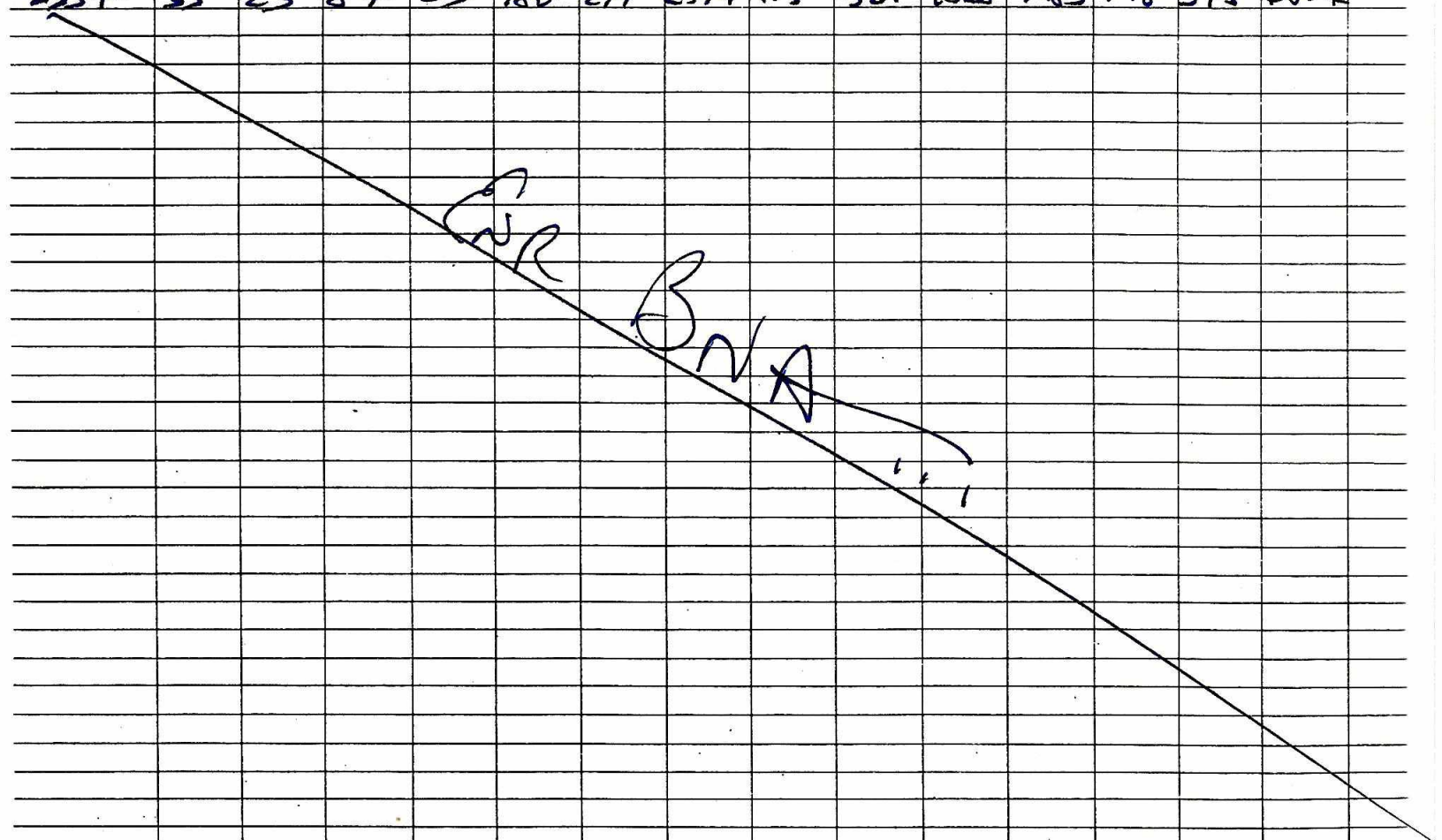
	FWD	LS	RS	VERT	
ON					
OFF					
RATE					

REMARKS

NOAA FORM 59-4
(2-72)

950706I

Time	LAT	LONG	TRK	WD	WS	TA	TD	PA	GA	SP	PS	PQ
2107	12K MSL											
2118	35 01	87 25	354	282	24.7	2.8	-16.8	3595	3556	991.3	649.5	65.9
213730Z	@ 9K MSL											
~~2302Z~~	@ 8K MSL					@ PT NS -						
2212	35 17	87 21	013	289	26.6	10.1	1.2	2384	2240	985.9	758	70.
2235Z	@ 2.5K MSL											
	@ 2.0K MSL											
2305Z	@ .5 AGL		- 10K MSC @ 2311 SOZ									
2327Z	@ 15TC MSL		END @ 800Z ... ENR BNA									
2357	35 23	87 23	180	289	25.4	1.5	-32.1	4528	4483	978	575	68.7



OZONE-95

FLIGHT #11 950706H I.C. w/ G1 acft.

TYPE OF DATA	SENSOR OR OPTION
INE	1
Accelerometer	1
Temperature probe	1
Altitude change option (for vertical winds)	PA
Static pressure	Rosemount fuselage
Dynamic pressure	Rosemount fuselage
Time source	Micro 29
Constants file	CO2951.CON

Notes:

There were no time/data gaps on this flight.

The aircraft INE#1 positions were renavigated utilizing 05 GPS positions.

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.

	Take off	Landing
Aircraft static pressure	997.6mb	993.8mb
Corrected tower pressure	1019.3mb	1018.4mb

Flight Meteorologist: Philip D. Bogert, (813) 828-3310 X3072

LINE #1

050706 H

①	212700Z	3540.2	−0.3
		8721.8	± ∅
②	222000Z	3546.0	−0.2
		8712.8	−0.1
③	230800Z	3502.1	−0.5
		8716.6	± 0
④	233900Z	3555.9	+0.1
		8722.6	−0.1
⑤	003000Z	3607.3	+0.2
		8640.8	+0.2

G1 = 701 BN

Intercomparison with G1 7/06/95

Point A : Nashville, Metropolitan Airport (36 08 N, 86 41W)
Close Doors : 14:40 CDT
Takeoff: 15:00 CDT

Calibration at 12 kft for 25 min, observer calls
Head direction of **Pt. WS (35 00N, 87 30W)**

At Pt. WS head direction of **Pt. WN (36 15N, 87 30W)** stay at constant altitude for calibration and return to Pt. WS

At 15:35 descend to **9 kft MSL**
continue flight between Pt. WS and Pt. WN. Return to Pt. WS at 16:00

Intercomparison with the G1
between WS(35 00N, 87 30W) and WN (36 15N, 87 30W)
at 2 heights, 6 kft MSL, 2.5 kft MSL

Rendevous with G1 at 16:00 at WS at **6 kft MSL**

At 16:05 head direction of Pt. WN at **6 kft MSL**
HC sample : 16:10-16:15
HC sample : 16:25-16:30

At Pt. WN descend to 2.5 kft MSL, realign with G1
At 16:35 head direction of Pt. WS at **2.5 kft MSL**
HC sample : 16:40-16:45
HC sample : 16:55-17:00

Up and down profile to 10 kft MSL

At 17:05 racetrack profile or spiral to 10 kft MSL **at 1500 ft/min**
and return down to 500 ft AGL
(17:05-17:20) HC sample : 17:10-17:15

End of Intercomparison

Racetrack profile or spiral to 15 kft MSL **at 1500 ft/min**
17:20-17:30 HC sample : 17:25-17:30

Calibration (~ 30 min) between Pt. WS and Pt. WN **at** **15 kft MSL**
17:30-18:00 HC sample : 17:40-17:45
HC sample : 17:55-18:00
Stay at 15 kft MSL until 18:03

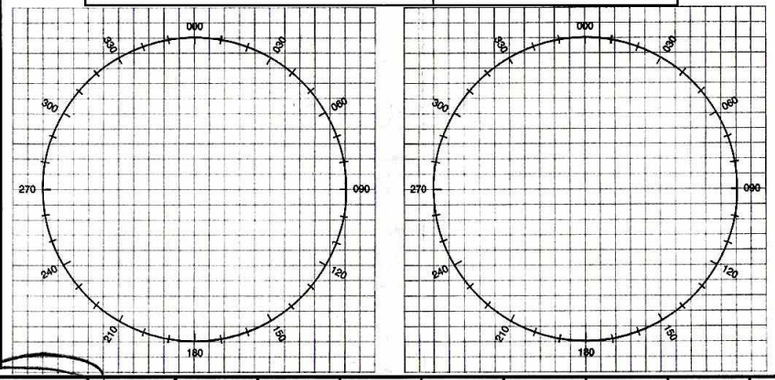
Return to Nashville: ~ 18:20

Investigator Crew for Flight #12 (July 6, 1995)

Aerosols	Pat Sheridan	
NO/NOx/NOy/NOy*	Tom Ryerson	
HC/GC	Bill Kuster	NOAA staff
Radon	Mike Farmer	NOAA staff
PAN	Jonathan Williams ~~Jim Roberts~~	NOAA staff
Carbonyls	~~[redacted]~~ Xianliang Zhou	
SO2, CO, O3	David Parrish	NOAA staff
H2O2	Tom Jobson	
Datasystems		
Ops	Gerd Hübler FRED FEHSENFELD BART VERHULST ELLIS COWLING LENNY NEWMAN	
Total	13 ~~8~~ **seats**	

CLEARANCES			
FREQ	ALT	HDG	OTHER

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 DESIRED
- PILOT INTENTIONS
- WE HAVE _____ ENDURANCE REMAINING

TIME	FIX TYPE	POSITION	INS 1 POSITION	K ERR	INS 2 POSITION	K ERR	MH	VAR +E==>	TH	DR +R==>	TRK	GS	WD	WS	ALT	TAS	NEXT PT	DIST	TIME	ETA	REMARKS
2015 / 2049																					ENGINE START TAXI
2057																					TAKEOFF
2127	FM1 GPS	3539.9 / 8721.8	3540.2 / 8721.8	-.3 / 0	3539.5 / 8721.5	+.4 / +.3			355	SR	000	243	289	25	12K	249					
2220		3545.8 / 8712.7	3546.0 / 8712.8	-.2 / -.1	3544.7 / 8712.4	+.8 / +.3			013	SR	018	235	285	19	8K	236					
2308		3501.6 / 8716.6	3502.1 / 8716.6	-.5 / 0	3459.5 / 8716.4	+2.1 / +.2			CIRCLING			UP									
2339		3556.0 / 8722.5	3555.9 / 8722.6	+.1 / -.1	3553.2 / 8721.9	+2.8 / +.6			355	SR	000	246	304	26	15K	262					CALIBRATION
0030		3607.5 / 8641.0	3607.3 / 8640.8	+.2 / +.2	3603.7 / 8641.2	+3.8 / -.2															LAND