



U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration

p. 1/3

19790902HI-CLDAHV

To : 790902H

M. Powell
Cloud Physics Log

takeoff 200112 Z from NIA

From: 201029 streaks on sea sp. 18.5 ms^{-1} winds
25.71N 79.64W

2013 trouble with tape drive will try to get McCoy to fix

2014 Stratos deck below with some openings Sp = 21.9 ms^{-1}

2019 1580M

@ 103° ESE

2023 lines observed $\perp$ to wind in sea probably sand took picture

2027 trouble with INS wind speed discrepancy + told make

will put foil on for 1st penetration will try

2036 to record tape but it may not work

foil 2037

tape 2038

2040 NAV said 75 kts at 90 INS says 75 at 25 ms^{-1}

2043 malfunction light went on closed shutter, tears off
eye ~ 300 ft. mile diam wind speed on INS is all off
very weak eye wall

2046 eye 14.35 77.96 wall observed on N+W side
977 ft. press.

tape or record but very slow 20 rate set to 70
complete stratus in lower levels

2054 still wind discrep will try loading other computer

2057 NAV-MAX wind 76 kts before penetration

2111 see Cuba

2118 will change tape soon

2125 tape 2 on very weak organization major eye + wall on east side

2135 but new cell developing on west side

2140 will change tape at 2149 for 2nd penetration

2149 stop tape 2

2152 tape 3 on for last passage

eye ~ 2203

2212 eye center 977 mb pressure on screen
may be hoky

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1451580-285-0-8181-092-00511341

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2218 passage of west eyewall

2222 sea spr. 140° 173° 1600m wind dir. 33° inflow 24.3 77.132225 $35^\circ + 103 \rightarrow 138 - 121 = 33^\circ$ 24.3 77.02229 $45^\circ + 103 \rightarrow 148 - 173 = 25^\circ$ 24.3 76.76 28ms⁻¹2234 tape 3 out 40° 2236 ^{hd} 168 ^{hd} 100 24.3 76.3

2239 tape 4 on 2239

2242 $00 + 307 \text{ hd} - 158 = 11^\circ$ @ 24.65 76.6 looked like $\rightarrow$
 $\frac{-180}{147}$

~ 2250 spoke to Dave J. will make a series of 1500 ft. legs

~ 2256 tape 4 ran out without rewinding auto

2304 tape 5 on but trouble with tape drive started forward on load
before record button started McRory will look at after pass2312 -95° $\frac{163}{-95^\circ} \frac{84}{-68} \frac{16^\circ}{16^\circ}$ 25.44, 78.212325 mt. front eyewall 44.6 ms⁻¹ 087 only one good jolt2344 tape 5 started in ^{~90 kts} eye by McRory 2344

2351 rewound tape 2 - it started recording fast with no data

2352 tape 5 restarted after reformatting system

0014 12 min to turn pt.

0019 beginning descent to 1500 ft.

0024 1500'

0025 stop tape 5 + rewind

0029 tape 6 started

0045 tape 6 done no auto rewind

0047 in eye

0057 tape 7 started

0104 storm moving 300° @ 10 kts.

0108 ice particle counter going

0117 turn to HPG 128°

0119 winds look strange in west side periphery

0144 turn

0216 turn

0219 stop tape 7 + rewind before end

0223 start tape 8

0241 talked to P. Jorgensen - cent press. of 966 looks low but radar shows brightening
we will try him down to max winds for MIA eye is so big press. shows slow
radial change in eye

0246 100 kts.

0248 tape 8 done + rewinding following rainband in

0252 tape 9 started

0310 eye diam down to ~15 n. mi.

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- 0316 tape 9 done
0320 - tape 10 started - Hdg. 312° for Eglin AFB
~0335 tape 10 done + rewound (tape drive problem again)
0342 tape 11 on
041930 - tape drive read to far without data this possibly happened
on tape 10 also, tape 11 rewound + secured tape 11 is most likely
bad. trying to rewind tape still @ 0437
0451 - all systems (cl. phys.) power down
0454 - banded at Eglin 30.48° 86.51°

790903I

Form I-2 Cloud Physics Project Scientist Operational CHECKLIST

M. Powell

DATE 9-3-79

AIRCRAFT 43RF

FLIGHT 790903I

A. INSTRUMENT STATUS AND PERFORMANCE

	PreFlight	InFlight	PostFlight	Remarks	Data Units Collected
Johnson Williams	✓	✓	✓		
Nimbiometer	NO	NO	—		
Lyman Alpha	NO	NO	—		
U. V.	NO	NO	—		
dewpoint	NO	NO	—		
Foil Impactor	✓	✓	✓		
Formvar	NO	NO	—		
Knollenberg	✓	✓	✓		
Raindrop	✓	✓	✓		
Cloud Droplet	✓	✓	✓		
FSSP	✓	NO	—		
Data System	✓	✓	✓		
& Displays	✓	✓	✓		
Ice Particle Counter					
Mee	NO	NO	—		
ERT	NO	NO	—		
CO ₂ Radiometer	NO	NO	—		
Microwave Radiometer	NO	NO	—		
Aerosol	NO	NO	—		
Filters	"	"	—		
Bulk Water	"	"	—		
INC	"	"	—		
CCN	"	"	—		

B. REMARKS

Form I-2 Cloud Physics Project Scientist Operational CHECKLIST

M. Powell NHEML

DATE 9-2-79

AIRCRAFT 42 RF

FLIGHT DAVID 790902H

A. INSTRUMENT STATUS AND PERFORMANCE

	PreFlight	InFlight	PostFlight	Remarks	Data Units Collected
Johnson Williams	✓		✓		
Nimbrometer					
Lyman Alpha					
U. V.					
dewpoint					
Foil Impactor	OK ^{not} marked	Failed after 1st pass	✓		✓
Formvar	NO		✓ NO		
Knollenberg	✓	✓	✓		✓
Raindrop	✓	✓	✓		
Cloud Droplet	✓	✓	✓		
FSSP	✓	✓	✓		
Data System	✓	✓	✓		
& Displays	✓	Periodic tape drive trouble	✓		
Ice Particle Counter					
Mee	✓		✓		
ERT					
CO ₂ Radiometer	✓		✓		
Microwave radiometer	✓		✓		
Aerosol					
Filters					
Bulk Water					
INC					
CCN					

B. REMARKS

* MARK Foil AFTER Flight

195016 tape 1 on but trouble with tape running with no particles showing on screen before takeoff

foil malfunction at ~2100"

2106 McFerry checked tape & said it was working O.K. ~~was~~ should go faster in particles and is going faster

2120 tape 1 started rewinding not sure if it should have

2125 tape 2

2149 tape 2 off

2151 tape 3 on

9-3-79 - McFerry took foil off - He had only put in a partial roll

FLIGHT - MARK POWELL
790902H 5 DAVID

Cloud Physics
Station

