19900828I/-CLDPHY

E.3 Cloud Physics Scientist (On-Board)

The on-board cloud physics scientist (CPS) is responsible for cloud physics data collection on his/her assigned aircraft. Detailed operational procedures are contained in the cloud physics kit supplied for each aircraft. General procedures follow. (Check off and initial).

E.3.1 Preflight

✓ 1. Determine status of cloud physics instrumentation systems and report to the on-board lead project scientist (LPS).

✓ 2. Confirm mission and pattern selection from the on-board LPS.

✓ 3. Select mode of instrument operation.

✓ 4. Complete appropriate instrumentation preflight check lists as supplied in the cloud physics operator's kit.

E.3.2 In-Flight

✓ 1. Operate instruments as specified in the cloud physics operator's kit and as directed by the on-board LPS.

E.3.3 Postflight

✓ 1. Complete summary check list forms and all other appropriate forms.

✓ 2. Brief the on-board LPS on equipment status and turn in completed check sheets to the LPS.

✓ 3. Take cloud physics data tapes and other data forms and turn these data sets in as follows:

   a. Outside of Miami - to the HRD operations center (FGOC).
   b. In Miami - to AOML/HRD. [Note: all data removed from the aircraft by HRD personnel should be cleared with the AOC flight director.]

_____ 4. Debrief as necessary at the appropriate operations center (i.e., FGOC or MGOC).

_____ 5. Determine the status of future missions and notify the appropriate operations center (FGOC or MGOC) as to where you can be contacted.

Form E-3
Page 1 of 3

Cloud Physics Project Scientist Operational Check List

Date 28 Aug 90 Aircraft 43RF Flight ID 900828I1

A. Instrument Status and Performance:

System	Pre-Flight	In-Flight	Downtime	# of Tapes
Johnson-Williams	✓	TAS dial 170 comp ?		
PMS probes:	✓			
2D-P	✓	Fair		
2D-C	CAPUT	X		
FSSP	?	✓		
Data System	✓	✓		
Recorder	✓	✓		
Formvar	—	—		
DRI Charge Probe	—	—		
DRI Field Mills	—	—		
King Probe	X	X		

B. Remarks:

Form E-3
Page 3 of 3

START
0 8008 2816 212
1 7023 0000
2 0738 1041 0475
3 0468 1420 0868
4 1008 1487 1486
5 0802 1187
6 3340 4977
7 3338 4960
8 0988 1502
9 0023 2867

Formvar Log

Date 8/28/90 Flight _____ Operator _____

Roll #	Time On	Time Off	Frame Count at Start	Comments
1631/30	SWITCHED	FSIP TO	~~CAMERA~~	RANGE 1
				21/58 58/05 AF FIX
~~1812/19~~	STARTED	TAPE	#1	SLOW RATE
1817/09	BACK TO 0.1			
1826/12	ON SLOW	AGAIN		
1827/30	TURNED	CLOCK	PROBE OFF	TAS 240 63.92% , RUN ON MACH
1831/18	21/14.5	57 55.1	FIX	
142/50?	MOVED	84%	on oscillator	

K 1½ S ahead of data system

T/O 1629/02 FSSP on range 4 on T/O, lots of counts

Form E-3
Page 2 of 3

2-D Knollenberg Data Tape Log

Date 28 Aug 90 Flight 900828 I Operator Willis

Tape #	EOF #	Time On	Time Off	Comments
1		1812/10	1822/30	
2		182230	1835/	DIDN'T SWITCH
3		1835/56	1844/14	
4		1844/59	1858/20	WON'T SWITCH, WON'T START
5		1858/25	1904/35	~~ON AUTO f again~~ 1902 probe failure bad
6		1904/40	≈1930/xx	on slow now 1906/00 back on
7		1930/00	1954	TAS 240 1933/25 SWITCHED f back to AUTO max
8		1954/31	2035	didn't start
9		2035/55	2050/30	
10		2050/30	2100/10	
11		2100/10	2117/20	2104/31 slow 2112/20 fast
12		2117/20	2202/30	
13		2202/30	2228/30	
14		2228/30	2317/47	
15		2317/47	2450/00	
16				