

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 as determined by the HRD/CPS.
- ☒ 4. Complete appropriate instrumentation preflight checklists 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 Operate instruments as specified in the cloud physics operator's kit and as directed by the HRD/CPS unless superseded by directions from the on-board LPS.

E.3.3 Postflight

- ☐ 1. Complete summary checklist 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 to the OAO flight director, who will arrange delivery as follows:
 - a. Outside of Miami - to the HRD operations center (FGOC).
 - b. In Miami - to OAO/Science and Program Division. [Note: all data removed from the aircraft by HRD personnel should be cleared with the OAO 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.

Cloud Physics Project Scientist Operational Checklist

Date 9/22/07

Aircraft 42

Flight ID 870922H

A. INSTRUMENT STATUS AND PERFORMANCE

System	Preflight	Inflight	Downtime	# of Tapes
Johnson-Williams	✓			
PMS probes				
2D-P	✓			
2D-C	✓			
FSSP	✓			
Data Sys	✓			
Displays	✓			
Formvar	✓			
Nimbiometer	✓			
CO ₂ Radiometer	✓			

B. REMARKS:

DATE 9/22/87

FLIGHT 870922H

OPERATOR RAB

2-D Knollenberg Data Tape Log

Tape #	EOF #	Time On	Time Off	Comments
1		152719		~ 80 mi. out.
2		154039	154551	
3		154551	155119	
4		155119	155750	
5		155750	160313	
6		160313	161027	
7		161027	161545	
8		161545	162108	
9		162108	162819	
10		162819	163349	
11		163349	163915	
12		163915	164439	
13		164440	164953	
14		164953	165517	
15		165517	170206	~ 1700 Radar out. ~ 1707 in
16		170206	170742	
17		170742	171352	

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RAB

2-D Knollenberg Data Tape Log

Tape #	EOF #	Time On	Time Off	Comments
18		171352	171917	
19		171917	172436	Dr. Burpee tells me bodies are stacking up in the rear
20		172436	172957	
21		172957	173556	
22		173556	174118	
23		174118	174647	1747 good rollercoaster
24		174647	175223	
25		175233	175938	1803 clear-air updates.
26		175938	180545	1810 approaching eyewall
27		180549	181128	
28		181129	181702	
29		181709	182314	
30		182319	182842	1827 inbound
31		182845	183357	1833 outbound
32		183359	183944	auto stop
33		184701	185228	1856 - nothing, inbound
34		185229	185751	1900 in eye
35		185759	190317	
36		190319	190856	

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Tape Log
~~Formvar Log~~

[illegible]

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FLIGHT 870922H

OPERATOR GRIFFIN

2-D Knollenberg Data Tape Log

Tape #	EOF #	Time On	Time Off	Comments
37		190856	191409	
38		191409		~ 1918 restart system
39		1919	1924	tape run away incomplete tape
40		1924	193003	
41		193003	193541	
42		193548	194123	
43		194130	194705	
44		194705	195243	
45		195243	195823	
46		195823	200404	
47		200404	200956	ran off end of tape
48		201105	201645	
49		2017	202238	
50		202238	202814	
51		202814	203350	
52		203350	203950	
53		203950	204529	
54		204529	205113	K2050/00 DATA SYSTEM 2049/53
55		205113	205705	

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2-D Knoll Data Tape Log
Formvar Log

Tape ROLL #	TIME ON	TIME OFF	FRAME COUNT AT START	COMMENTS
56	205725	210255		21022 wild ride!
57	210255	210839		
58	210839	211422		2111Z still +7 seconds vs. data system
59	211422	212008		
60	212008	212544		
61	212544	213136		
62	213136	213746		
63	213746			this tape has gap in middle ended prematurely
64		215247		2139 stopped - 2145 restart
65	215247	215928		unloaded also, about same spot
66	215928	220531		
67	220531	2215		same thing
68	2215	222005		
69	222005	222650		
70	222650	223216		
71	223216	223722		
72	223722	2243		
73	2243	224817		
74	224817	225336		

believe it is binding on inside cover
drive it

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FORMVAR LOG

[illegible]