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.

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Cloud Physics Project Scientist Operational Check List

Date <u>SEP 2 0 1990</u>   Aircraft <u>N42</u>   Flight ID <u>900920H</u>

A.   Instrument Status and Performance:

System	Pre-Flight	In-Flight	Downtime	# of Tapes
Johnson-Williams	✓			
PMS probes:				
2D-P	✓			
2D-C	MAYBE			
FSSP	✓			
Data System				
Recorder	✓ (one only)			
Formvar	N/A			
DRI Charge Probe	N/A			
DRI Field Mills	ok ↑↓			
King Probe	ok			

B.   Remarks:

Formvar Log

Date _____ Flight _____ Operator_____

Roll #	Time On	Time Off	Frame Count at Start	Comments

2-D Knollenberg Data Tape Log

Date _SEP 2 0 1990_   Flight _900920H_   Operator _R. A. BLACK_

Tape #	EOF #	Time On	Time Off	Comments
1		160000	163050	descent to 5000' rate = 1.0/sec
2		163315	182151	clear air. rate = 0.5 182100 in weak cloud.
				max rate on
3		182358	193015	rate = 1/sec. or slower
4		193225	202912	max rate in a rare cloud to EOT
5		203119	212820	end