

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 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 Operate instruments as specified in the cloud physics operator's kit and as directed by the HRD/CPS, unless superseded by directions from the on-board LPS.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 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 Check List

Date _____ Aircraft _____ Flight ID _____

A. Instrument Status and Performance:

System	Pre-Flight	In-Flight	Downtime	# of Tapes
Johnson-Williams				
PMS probes:				
2D-P				
2D-C				
FSSP				
Data System				
Displays				
Formvar				
Nimbiometer				
CO ₂ Radiometer				

B. Remarks:

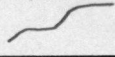
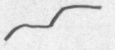
2-D Knollenberg Data Tape Log

Date _____ Flight _____ Operator _____

[illegible]

Formvar Log

Date 8/15/95 Flight 950815 I Operator J. Abelson

Roll #	Time On	Time Off	Frame Count at Start	Comments
				~1845 Through mid-level winter clouds
				Precip probe not working well
			950816I	
				1759 takeoff, Precip probe broken
				1823 started instrumentation
				182330 started writing to tape
				182510 lumpy movement 
				182525 " 
				182610, 182620, 182630 autopilot problems
				184500 into clouds, cloud probe looks good
				190000 essentially out of clouds clouds above and below
				1911 back in clouds
				191645 started audiotape
				192005 20° maneuver done (start)
				192110 30° maneuver completed
				193833 fired cassette recorder for current rate
				1956 tape ended
				2030 out of central clouds

2035 back in outer clouds
2052 tape recorder on / out of outer band
2052 42 left bank
2053 08 right bank
2053 45 end microphone
2111 finish recording

2/22 cloud physics off