19950816I1_CLD PHY

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 Operate instruments as specified in the cloud physics operator's kit and as directed by the HRD/CPS, unless superseded by directions from the on-board LPS.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

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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_____

Tape #	EOF #	Time On	Time Off	Comments

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Formvar Log

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

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 ~
	used settings on top of recorder			182525 " ~
	BIAS = normal EQU - normal ANRS - off			182610, 182620, 182630 autopilot problems
	Input - all RECORD LEVEL			184500 into clouds, cloud probe looks good
	Left - max Right - max			190000 essentially out of clouds clouds above and below
	RECORD MASTER ~~maximum~~ - 15 VU			1911 back in clouds
				191645 started audio cassette
				192005 20° maneuver done (start)
				192110 20° maneuver completed
				193833 fixed cassette recorder for correct setting
				1936 tape ended
				2030 out of central clouds

2035 back in outer clouds
2052 tape recorder on / out of outer band
205242 left bank
205308 right bank
205345 end maneuver
2111 finish recording

2122 cloud physics off