

## E.2 Cloud Physics Scientist (On Board)

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

E.2.1 Preflight

- ☒ 1. Determine status of cloud physics instrumentation systems and report to on-board lead project scientist.
- ☒ 2. Confirm mission selection and pattern selection from on-board lead project scientist (LPS).
- ☒ 3. Select mode of instrument operation as determined by HRD cloud physics scientist.
- ☒ 4. Complete appropriate instrumentation preflight checklists as supplied in cloud physics operator's kit.

E.2.2 In-Flight

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Operate instruments as specified in cloud physics operator's kit and as directed by HRD cloud physics scientist, unless superseded by directions from on-board LPS.

E.2.3 Postflight

- ☐ 1. Complete summary checklist forms and all other list forms.
- ☐ 2. Brief 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, such as formvar film, foil, etc., and turn these data sets in to the flight director, who will arrange delivery as follows:
  - a. Outside of Miami - to HRD operations center.
  - b. In Miami - to RFC RSG offices.
- ☐ 4. Debrief as necessary at operations center.
- ☐ 5. Determine status of future missions and notify operations center as to where you can be contacted.

Cloud Physics Project Scientist Operational Checklist

DATE Sept 29 '87  
A.

AIRCRAFT 42

FLIGHT 820929H

INSTRUMENT STATUS AND PERFORMANCE

	PreFlight	InFlight	PostFlight	Remarks	Data Units Collected
Johnson-Williams	OK	broken			
Nimbliometer	N/A	N/A			
Lyman Alpha					
U. V.					
dewpoint					
Foil Impactor					
Formvar	OK	jammed			2 rolls
Knollenberg					
Raindrop	OK				
Cloud Droplet	OK				
FSSP	OK				
Data System	OK				7 tapes
& Displays					
Ice Particle Counter					
Mee					
ERT					
CO <sub>2</sub> Radiometer	OK				
Microwave Radiometer	OK				
Aerosol					
Filters					
Bulk-Water					
INC					
CCN					

B.

REMARKS

2D-C has no ice detector  
2D-C time - bars not properly spaced.



DATE 9/27/87

FLIGHT 870929H

OPERATOR R. BLACK

2-D Knollenberg Data Tape Log

Tape #	EOF #	Time On	Time Off	Comments
1		182220		172200 TAKEOFF
		182818		PMS on 0.5
		183325	183500	
2		183509	185500	
3		185509	190650	
4		190659		
5			194900	
6		194900		Jarvi accidentally cut power
7			2026	to 2-D DAS.
8		202840	~2052	
9		~2052	205419	

DATE \_\_\_\_\_ FLIGHT \_\_\_\_\_ OPERATOR \_\_\_\_\_

## Formvar Log

[illegible]



DATE 870929H FLIGHT \_\_\_\_\_ OPERATOR R. BLACK

Formvar Log

P. 1.

ROLL #	TIME ON	TIME OFF	FRAME COUNT AT START	COMMENTS
1.	182220		11	speed 1
	182330			speed 4 cld. 1 pass 1 2 events
	182450			speed 1 2 marks cld 1 pass 1 end
	182539			many events
		182709	5700	auto off
	182930		6260	speed 1 cld 1 pass 2
	1830		6800	speed 4
			7880	speed 1
			8080	auto off
			8783	
	183519			2 marks cld 1 pass 3
		(10, 100)		2 marks prop 4 183743
	183839	(11, 967)		op 1 end pass
		<del>1325</del>	13,250	auto off 2 marks
			13,985	
	182546		14,000	speed 1
			14,557	184626 auto off
		184740	15,318	

FLIGHT\_\_\_\_\_

OPERATOR \_\_\_\_\_

## 2-D Knollenberg Data Tape Log

[illegible]



DATE Sept 29 '87 FLIGHT 870929H OPERATOR R. BLACK

P.2

Formvar Log

ROLL #	TIME ON	TIME OFF	FRAME COUNT AT START	COMMENTS
1	185110			cld. 3 pass 1
	185200	16,300		spd. 4
		18,800		spd. 1 auto off
			18,578	
1.	185545			cld 3 pass 2 spd. 1
			19,500	speed 4 2 mk
			19,700	speed 1 2 mks
	185830		20,7050	2 marks sp. 1
	185949			2 events auto off sp. 1
			22360	
	190405			cld 3 pass 3 2mk
		190500	22,900	spd. 4
	190530		24,700	spd. 1
			25000	spd. 4
	190650		26,575	
			26,900	auto off
			27,678	off
	1912		29,589	on spd. 4
			30,500	spd 4

191437

31,000 spd. 1

FLIGHT\_\_\_\_\_

OPERATOR \_\_\_\_\_

## 2-D Knollenberg Data Tape Log

[illegible]



DATE \_\_\_\_\_ FLIGHT 870927 H OPERATOR R. BLACK  
P.3

Formvar Log

ROLL #	TIME ON	TIME OFF	FRAME COUNT AT START	COMMENTS
1				auto off 191700
	191930		33,443	spd. 1 cld 3 pass 3 2 mk.
1	191950			spd. 4
	192150		36000	spd. 1 auto off 2 mk
	194350		36,920	(cld 4 pass 1) (3 cells)
			37200	spd. 4
	194500			
			40,700	2 mk @ 194540
	194620		42,200	2 mk spd. 1
			42,700	spd. 4
	194725		44,000	auto off spd. 1
	195212		44,700	spd. 1 cld 4 pass 2
	195250		45,300	spd. 4
			46,700	spd. 1
	1954			spd 4
			48	spd. 1
	195700		49000	auto off
roll 2	202934		700	speed 1
			820	speed 1 2 mk







OPERATOR \_\_\_\_\_

## 2-D Knollenberg Data Tape Log

[illegible]