

441 @ 12<sup>5</sup>e 5512.5

G  
70.4  
F58

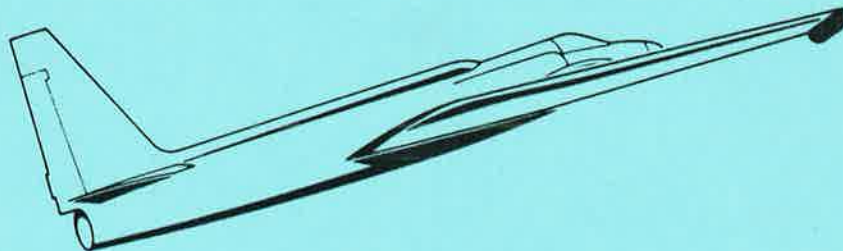
## Airborne Instrumentation Research Project

# Flight Summary Report

Flight No. 83-142

Date 8 July 1983

FSR- 1771



# NASA

National Aeronautics and  
Space Administration

**Ames Research Center**  
Moffett Field, California 94035

**Airborne Missions and Applications Division**

# FLIGHT SUMMARY REPORT

Flight No: 83-142

Date: 8 July 1983

FSR No: 1771

Julian Date: 189

Sensor Package: RC-10 Camera,  
Aerosol Particulate Sampler (APS)

Aircraft No: 706

Purpose of Flight: #0985 Support  
Requestor: Medigovich  
#0792 Support  
Requestor: Pollack

Area(s) Covered: San Francisco Bay Area

## SENSOR DATA

Accession No:	03235	---
Sensor ID No:	026	024
Sensor Type:	RC-10	APS
Focal Length:	12" 304.97mm	---
Film Type:	High Definition Aerochrome Infrared	---
Filtration:	CC .10B	---
Spectral Band:	510-900nm	---
f Stop:	4.0	---
Shutter Speed:	1/225	---
No. of Frames:	441	---
% Overlap:	60	---
Quality:	Excellent	---
Remarks:	---	Non-imaging Sensor

## FLIGHT SUMMARY

83-142

This flight was flown in support of Flight Requests #0985 (Office of Emergency Services/State of California) and #0792 (Medigovich, NASA/ARC) under the FY 1983 Airborne Instrumentation Research Program (AIRP) plan. Color infrared photography was acquired over the San Francisco Bay Area with the RC-10 Camera (see track map). Additionally, Aerosol Particulate Sampling (APS) was acquired throughout the flight above 60,000 feet, but is not depicted on the track map.

Light to moderate cumulus cloud cover was encountered during portions of the flight. No camera or processing malfunctions were noted, and the quality of the data is rated as excellent.

### Aerosol Particulate Sampler

The APS has been developed and is operated by Dr. Guy Ferry of the NASA-Ames Research Center Atmospheric Experiments Branch. The sampler is a non-imaging sensor designed to gather high altitude dust particles for laboratory research.

**FLIGHT LINE DATA****FLIGHT NO.** 83-142

026

Check Points	Frame Numbers	Time (GMT— hr, min, sec)		Altitude, MSL feet/meters	Cloud Cover/Remarks
		START	END		
A-B	4858-4895	17:26:51	17:44:27	65,000/19800	5-30% cumulus, frs. 4886-4895
C-D	4896-4941	17:48:44	18:08:47	"	5-10% cumulus, frs. 4898-4909
---	4942-4948	18:09:09	18:12:00	"	Clear; camera left on during turn
E-F	4949-4990	18:12:28	18:31:56	"	5% cumulus, frs. 4960-4964, 4975-4979; 5-10% cumulus, frs. 4983-4990
G-H	4991-5042	18:36:29	19:12:05	"	5% cumulus, frs. 4991-4993, 5012-5014; 5-10% cumulus, frs. 5032-5042
I-J	5043-5058	19:16:10	19:23:15	"	5-30% cumulus, frs. 5048-5057
K-L	5059-5083	19:36:06	19:36:06	"	5% cumulus, frs. 5079-5083
M-N	5084-5096	19:42:37	19:48:17	"	5% cumulus, fr. 5084-5087
O-P	5097-5102	19:51:29	19:53:50	"	Clear
Q-R	5103-5112	20:00:08	20:04:22	"	5-20% cumulus, frs. 5104-5109
S-T	5113-5157	20:09:20	20:29:53	"	5-20% cumulus, frs. 5115-5126, 5154-5157
U-V	5158-5204	20:34:04	20:55:48	"	5% cumulus, frs. 5158-5165, 5168-5175, 5201-5204
W-X	5205-5245	20:59:05	21:17:58	"	5% cumulus, frs. 5220-5224; 5-10% cumulus, frs. 5230-5233; 20-60% cumulus, frs. 5234-5245

## FLIGHT LINE DATA

FLIGHT NO. 83-142

Check Points	Frame Numbers	Time (GMT - hr, min, sec)		Altitude, MSL feet/meters	Cloud Cover/Remarks	
		START	END			
026	Y-Z	5246-5298	21:21:17	21:48:00	65,000/19800	30% cumulus, frs. 5246, 5285-5289; 10% cumulus, frs. 5247-5251, 5266-5267, 5275-5276, 5283-5284; 30-60% cumulus, frs. 5252-5265; 5% cumulus, frs. 5290-5298
024 APS	---	---	17:30:00	21:45:00	65,000/19800	APS #3 exposed for 4 hours and 15 minutes above 60,000 feet

**FLIGHT 83-142**  
**8 JULY 1983**  
**Data Run**  
**RC-10** ———



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