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Airborne Instrumentation Research Project

Flight Summary Report

Flight No. 78-028

Date 13 March 1978

FSR- 1110



NASA

National Aeronautics and
Space Administration

Ames Research Center

Moffett Field, California 94035

Airborne Missions and Applications Division

FLIGHT SUMMARY REPORT

Flight No: 78-028

Date: 13 March 1978

FSR No: 1110

Julian Date: 072

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

Aircraft No: 4

Purpose of Flight: Flood Assessment
Requestor: Office of Emergency Services
State of California

Area(s) Covered: Southern California

\$ 2135.⁰⁰

580.00
B/W
290
5.00

SENSOR DATA

2445⁰⁰
15 RA 4290.00

Accession No:	02585	02586	---
Sensor ID No:	035	026	024
Sensor Type:	RC-10	RC-10	APS
Focal Length:	6" 153.46mm	12" 304.97mm	---
Film Type:	Panatomic-X, 3400	High Definition Aerochrome Infrared, SO-127	---
Filtration:	Wratten 12+2.2AV	CC .20B+.05C	---
Spectral Band:	510-700nm	510-900nm	---
f Stop:	4.0	5.6	---
Shutter Speed:	1/125	1/90	---
No. of Frames:	116	326	---
% Overlap:	60	60	---
Quality:	Excellent	Excellent	---
Remarks:	---	---	Non-imaging sensor

FLIGHT SUMMARY

78-028

This flight was flown in support of the Office of Emergency Services, State of California to acquire photographic data over southern California for flood damage assessment purposes (see Track Map). Additionally, Aerosol Particulate Sampler (APS) data was collected during climb and before final descent. APS data is not shown on the Track Map.

The weather was clear over most of the area with the exception of some minor cumulus over eastern Los Angeles and the San Gabriel Mountains. A Time Code Generator problem resulted in a loss of data annotation on the color infrared photography. The times listed in the Flight Line Data were derived from the pilot's flight log and the black and white photography data annotation. Both rolls are of excellent quality with no other camera or processing malfunctions noted.

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. 78-028

Check Points	Frame Numbers	**Time (GMT—hr, min, sec)		Altitude, MSL feet/meters	Cloud Cover/Remarks	
		START	END			
RC-10 #026	a-b	9234-9238	19:04:35	19:06:40	65,000/19800	Clear
	c-d	9239-9247	19:21:16	19:25:15	"	0-10% cumulus
	e-f	9248-9292	19:28:32	19:50:15	"	10-20% scattered cumulus, frs. 9248-9258
	g-h	9298-9345	19:56:37	20:19:27	"	10% scattered cumulus, frs. 9335-9345
	i-j	9346-9365	20:24:25	20:33:58	"	10% scattered cumulus, frs. 9346-9350
	k-l	9366-9381	20:36:48	20:44:14	"	Clear
	m-n	9382-9397	20:47:46	20:54:30	"	10% cumulus, fr. 9397
	o-p	9398-9401	20:59:10	21:00:35	"	Clear
	q-r	9414-9419	21:13:00	21:16:00	"	Clear
	s-t	9420-9433	21:19:00	21:25:00	"	Clear
	u-v	9434-9451	21:28:00	21:36:30	"	10% cumulus, frs. 9434-9435
	w-x	9452-9470	21:40:00	21:49:00	"	10-30% scattered cumulus, frs. 9461-9470
	y-z	9471-9517	21:52:00	22:16:00	"	10-30% scattered cumulus, frs. 9471-9479
	A-B	9525-9563	22:21:00	22:41:58	"	10% scattered cumulus, frs. 9556-9558
	C-D	9564-9566	22:45:19	24:45:46	"	30% cumulus
	E-F	9567-9570	22:48:32	22:49:22	"	30-50% cumulus
F-G	9571-9577	22:51:30	22:54:20	"	10% cumulus, fr. 9571	
H-I	9578-9580	23:02:44	23:03:25	"	10% cumulus	
J-K	9581-9583	23:39:46	23:40:21	"	Clear	

NO DATA ANNOTATION. TIMES TAKEN FROM PILOT'S LOG

FLIGHT LINE DATA

FLIGHT NO. 78-028

Check Points	Frame Numbers	*Time (GMT— hr, min, sec)		Altitude, MSL feet/meters	Cloud Cover/Remarks	
		START	END			
RC-10 #035'	a-b	1924-1926	19:05:05	19:06:40	65,000/19800	Clear
	c-d	1927-1932	19:21:16	19:25:15	"	10-20% cumulus
	e-f	1933-1955	19:28:32	19:49:47	"	10-40% cumulus, frs. 1933-1938
	g-h	1959-1983	19:56:37	20:19:27	"	10-20% cumulus, frs. 1978-1983
	i-j	1984-1994	20:24:25	20:33:58	"	10-20% cumulus, frs. 1984-1987
	k-l	1995-2003	20:36:48	20:44:14	"	Clear
	m-n	2004-2011	20:47:46	20:54:30	"	10% cumulus, fr. 2011
	o-p	2012-2013	20:59:10	21:00:06	"	Clear
	s'-t'	2017-2019	21:21:10	21:21:18	"	Clear
	A'-B	2020-2030	22:32:18	22:41:58	"	10% cumulus, frs. 2026-2030
	C-D	2031-2034	22:45:19	24:45:46	"	50% cumulus
	E-F	2035-2036	22:48:32	22:49:22	"	40-50% cumulus
	F-G	2037-2040	22:51:30	22:54:20	"	10% cumulus, frs. 2037-2038
H-I	2041-2042	23:02:44	23:03:25	"	10-30% cumulus	
J-K	2043-2045	23:39:46	23:40:21	"	10% cumulus	
APS	---	---	18:39:--	18:41:--	50,000/15250	APS #2 exposed and sealed over San Jose IOAT -46°C
	---	---	18:44:--	18:46:--	60,000/18300	APS #1 exposed and sealed over Monterey IOAT -43°C
	---	---	23:13:--	23:15:--	70,000/21300	APS #3 exposed and sealed over Lancaster/-42°C

JNC-43N

FLIGHT 78-028

13 MARCH 1978

DATA RUN

DUAL RC-10 

RC-10#026 ONLY 

