

National Aeronautics and Space Administration

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Earth Resources Aircraft Project

Flight Summary Report

Flight No. 74-208

Date 19 December 1974

FSR- 575



Airborne Science Office

Ames Research Center, Moffett Field, California

NASA/ARC Earth Resources Aircraft Project

FLIGHT SUMMARY REPORT

Flight No: 74-208 FSR: 575 Date: 19 December 1974
Aircraft No: 5 Julian Date: 353
Sensor Package: Vinten System A/RC-10
Aerosol Particulate Sampler (APS)
Purpose of Flight: 74-OF-0200 Support/74-SR-0158 Support
Requestors: Rowland, USGS/Millard, NASA/ARC
74-SR-0047 Support (APS)
Area(s) Covered: Offshore Southern California

SENSOR DATA

Accession No:	01983	01984	01985	01986	01987
Sensor ID No:	001	002	003	004]	017
Sensor Type:	Vinten	Vinten	Vinten	Vinten	RC-10
Lens Focal Length:	1-3/4"	1-3/4"	1-3/4"	1-3/4"	6"
Film Type:	Panatomic-X, 3400	Panatomic-X, 3400	Panatomic-X, 3400	Aerochrome Infrared, 2443	Aerial Color, SO-242
Spectral Band:	390-460nm	400-470nm	480-590nm	510-900nm	400-700nm
f Stop:	5.0	3.2	3.6	7.0	4
Shutter Speed:	1/250	1/250	1/250	1/250	1/125
No. of Frames:	47	47	47	47	73
% Overlap	60	60	60	60	60
Quality	Excellent	Excellent	Excellent	Excellent	Excellent
Remarks	Aerosol Particulate Sampler (APS), Sensor ID No. 024, also flown (non-imaging sensor)				

FLIGHT SUMMARY

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This flight was flown in support of Flight Requests 74-OF-0200 (Rowland, USGS), 74-SR-0158 (Millard, NASA/ARC) and 74-SR-0047 (Ferry, NASA/ARC) under the CY 1974 Earth Observations Aircraft Program (EOAP) plan. The flight provides photographic data over the Pacific Ocean west of Los Angeles in support of a natural oil seepage detection program (see Track Map).

Scattered cirro-cumulus and cirrus cloud cover was encountered on all lines. Additionally, the intervalometer shutter pulse to the Vinten camera system malfunctioned resulting in no data over certain portions of the flight (see Flight Line Data and Track Map). Also, the time code generator intermittently malfunctioned resulting in some times being taken from the pilot's log.

The Aerosol Particulate Sampler (APS) was also flown on this flight in support of Flight Request 74-SR-0047 (Dr. Guy Ferry, NASA/ARC Planetary Science and Applications Branch) under the CY 1974 Earth Observations Aircraft Program (EOAP) plan. The sampler is a non-imaging sensor designed to gather high altitude dust particles for laboratory research. The Track Map and Flight Line Data indicate those segments of the flight during which the sampler was activated.

FLIGHT LINE DATA

FLIGHT NO. 74-208

	Check Points	Frame Numbers	Time (GMT - hr, min, sec)		Altitude, MSL (feet)	Cloud Cover/Remarks
			START	END		
VINTEN	A-B	0001-0022	19:44:04	20:04:52	65,000	10-40% cirro-cumulus and cirrus, frs. 0007-17
	C-D	0023-0035	20:07:48	20:17:48	"	Heavy cirrus, frs. 0027-30
	F	0036-0037	19:33:00	19:33:01	"	Clear - two frames over Santa Barbara
	G	0038	20:45:18	-----	"	40% cirro-cumulus
	H-I	0039-0041	20:56:45	20:57:49	"	Thin cirrus
	J-K	0042-0047	21:15:22	21:18:49	"	10-30% low cirro-cumulus
RC-10	A-B	1562-1584	19:44:06	20:04:59	65,000	10-40% cirro-cumulus and cirrus, frs. 1567-80
	C-E	1585-1608	20:07:50	20:30:--*	"	Heavy cirrus, frs. 1589-91; 10-30% cirro-cumulus, frs. 1595-1601
	F-G	1609-1615	20:33:01	20:38:--*	"	20-30% cirro-cumulus, frs. 1614-1615
	G-I	1616-1629	20:45:18	20:57:55	"	30-40% cirro-cumulus, frs. 1616-1620
	J-K	1630-1634	21:15:29	21:18:50	"	10-30% low cirro-cumulus
	* Interpelometer malfunction - times taken from pilot's log					
APS	1-2	---	19:21:--	19:41:--	65,000	APS #1 opened and closed
	3-4	---	19:49:--	20:09:--	65,000	APS #2 opened and closed

