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# Airborne Instrumentation Research Project

## Flight Summary Report

Flight No. 77-024

Date 10 March 1977

**FSR- 957**



# NASA

National Aeronautics and  
Space Administration

**Ames Research Center**

Moffett Field, California 94035

**Airborne Missions and Applications Division**

# FLIGHT SUMMARY REPORT

**Flight No:** 77-024

**Date:** 10 March 1977

**FSR No:** 957

**Julian Date:** 069

**Sensor Package:** Vinten System A / RC-10 / Aerosol  
Particulate Sampler (APS)

**Aircraft No:** 4

**Purpose of Flight:** #0614 Support  
Requestor: Shemdin  
#0047 Support  
Requestor: Ferry

**Area(s) Covered:** Southern California

## SENSOR DATA

1755-2

<b>Accession No:</b>	02468	02469	02470	02471	02472
<b>Sensor ID No:</b>	001	002	003	004	026
<b>Sensor Type:</b>	Vinten	Vinten	Vinten	Vinten	RC-10
<b>Focal Length:</b>	1-3/4" 44.5mm	1-3/4" 44.5mm	1-3/4" 44.5mm	1-3/4" 44.5mm	12" 304.97mm
<b>Film Type:</b>	Panatomic-X, 3400	Panatomic-X, 3400	Infrared Aerographic, 2424	Aerochrome Infrared, 2443	Aerial Color, S0-242
<b>Filtration:</b>	SCHOTT GG475 +SCHOTT BG18	SCHOTT OG570 +SCHOTT BG38	SCHOTT RG645 +CORNING 9830	WRATTEN 12+ CC .20B+.20C	NONE
<b>Spectral Band:</b>	475-575nm	580-680nm	690-760nm	510-900nm	400-700nm
<b>f Stop:</b>	4.0	3.5	5.0	4.8	5.6
<b>Shutter Speed:</b>	1/250	1/250	1/250	1/250	1/150
<b>No. of Frames:</b>	140	140	140	140	234
<b>% Overlap:</b>	60	60	60	60	60
<b>Quality:</b>	Excellent	Good	Good	Good	Excellent

**Remarks:** Aerosol Particulate Sampler (APS), Sensor ID No. 024, also flown (non-imaging sensor)

## FLIGHT SUMMARY

77-024

This flight was flown in support of Flight Requests #0614 (Shemdin, JPL) and #0047 (Ferry, NASA/ARC) under the FY 1977 Airborne Instrumentation Research Program (AIRP) plan. Photographic coverage was obtained over the southern California coastline and Channel Islands (see Track Map). Aerosol Particulate Sampler (APS) data was collected throughout the flight from level-off to beginning of descent and is not shown on the track map.

The entire area was cloud-free. An annotation system malfunction resulted in a loss of the data annotation block on the imagery. The times listed in the Flight Line Data were taken from the pilot's flight log. All imagery is of good to 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. 77-024**

	Check Points	Frame Numbers	Time (GMT— hr, min, sec)		Altitude, MSL feet/meters	Cloud Cover/Remarks
			START	END		
VINTENS	A-B	0001-0010	18:36:--	18:42:--	65,000/19800	Clear
	B-C	0011-0034	18:42:30	19:00:--	"	"
	C-D	0035-0039	19:03:--	19:05:--	"	"
	E-F	0040-0058	19:09:--	19:21:--	"	"
	G-H	0059-0087	19:28:--	19:53:--	"	"
	I-J	0088-0100	20:00:30	20:11:--	"	"
	J-K	0101-0121	20:13:--	20:29:--	"	"
	L-M	0122-0140	20:35:--	20:50:--	"	"
RC-10	A-B	9927-9938	18:36:--	18:42:--	"	"
	B-C	9939-9976	18:42:30	19:00:--	"	"
	C-D	9977-9985	19:03:--	19:05:--	"	"
	E-F	9986-0019	19:09:--	19:21:--	"	"
	G-H	0020-0070	19:28:--	19:53:--	"	"
	I-J	0071-0092	20:00:30	20:11:--	"	"
	J-K	0093-0128	20:13:--	20:29:--	"	"
	L-M	0129-0160	20:35:--	20:50:--	"	"
APS	---	---	18:13:--	21:25:--	"	APS #1 and #2 opened and closed

**JNC 43N**

**FLIGHT 77-024**

**10 MARCH 1977**

**DATA RUN**

**VINTEN /RC-10**

