

National Aeronautics and Space Administration

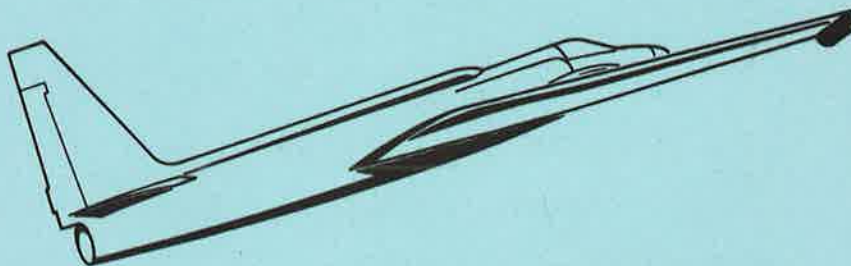
Airborne Instrumentation Research Project

Flight Summary Report

Flight No. 77-002

Date 4 January 1977

FSR- 942



Data Management and Research Branch

Applications Division

Ames Research Center, Moffett Field, California

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FLIGHT SUMMARY REPORT

Flight No: 77-002

Date: 4 January 1977

FSR No: 942

Julian Date: 004

Sensor Package: A-3 Configuration / Aerosol Particulate Sampler (APS)

Aircraft No: 5

Purpose of Flight: #0599 Support
Requestor: Mikkelsen
#0047 Support
Requestor: Ferry

Area(s) Covered: Northern California Coast

SENSOR DATA

Accession No:	02450	02451	02452	---
Sensor ID No:	018	019	020	024
Sensor Type:	HR-732F	HR-732C	HR-732R	APS
Focal Length:	24" 609.6mm	24" 609.6mm	24" 609.6mm	---
Film Type:	High Definition Aerochrome In- frared, S0-127	Aerial Color, S0-242	Panatomic-X, 3400	---
Filtration:	CC .15B	NONE	Wratten 12	---
Spectral Band:	510-900nm	400-700nm	510-700nm	---
f Stop:	11	8	8	---
Shutter Speed:	1/75	1/75	1/75	---
No. of Frames:	191	191	191	---
% Overlap:	60	60	60	---
Quality:	Fair	Excellent	Excellent	---
Remarks:	Underexposed	---	---	Non-imaging sensor

FLIGHT SUMMARY

76-002

This flight was flown in support of Flight Requests #0599 (Mikkelsen, California Coastal Zone Conservation Commission) and #0047 (Ferry, NASA/ARC) under the FY 1977 Airborne Instrumentation Research Program (AIRP) plan. Photographic coverage was obtained along the northern California coastline (see Track Map). Aerosol Particulate Sampler (APS) data was collected throughout the flight and is not shown on the track map.

Light to moderate cumulus clouds were encountered throughout the flight. The SO-127 infrared imagery is underexposed and rated fair quality. Additionally, the data annotation on the imagery is occasionally incorrect or difficult to interpret due to a partial Light Emitting Diode (LED) malfunction. All other imagery is 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. 77-002

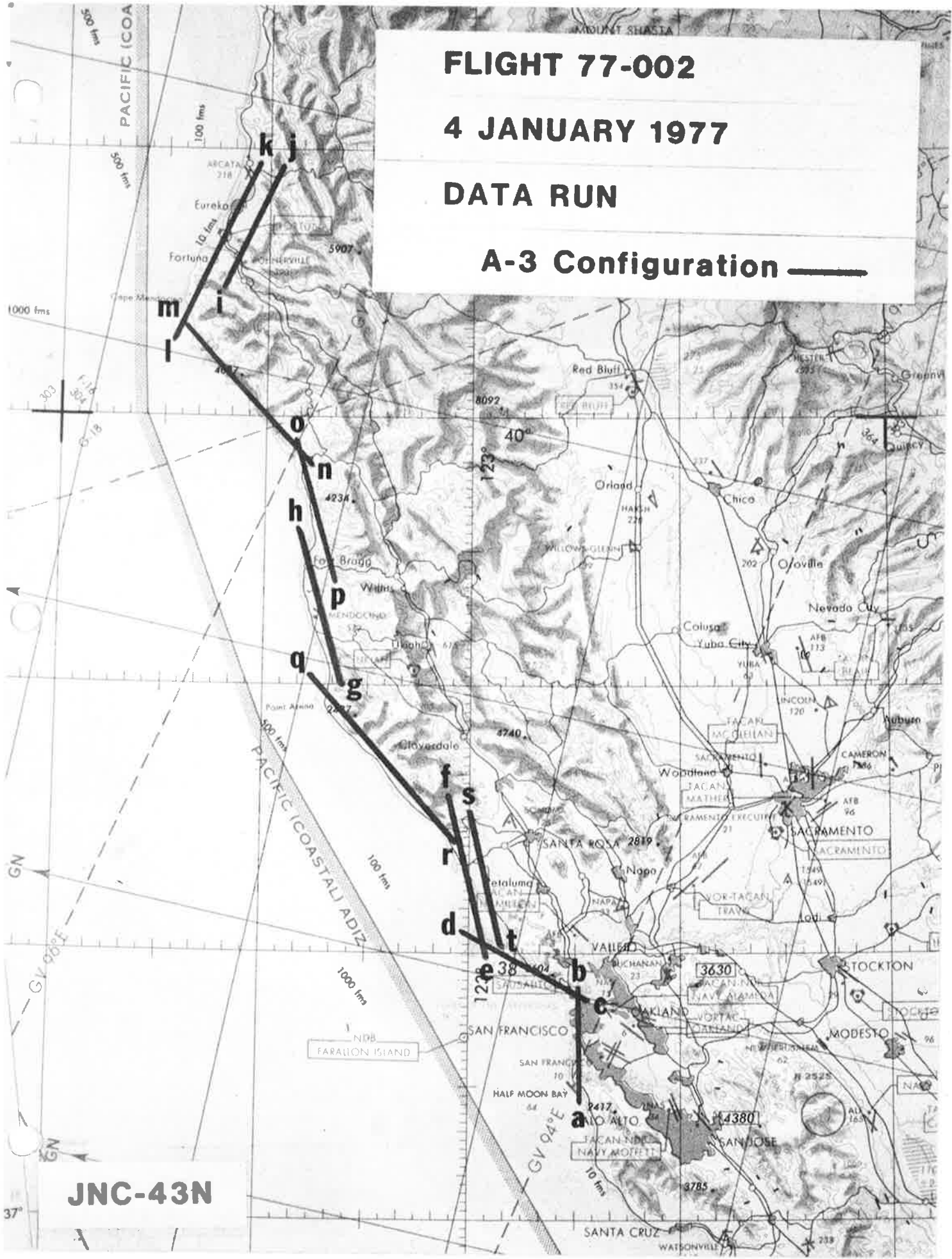
Check Points	Frame Numbers	Time (GMT— hr, min, sec)		Altitude, MSL feet/meters	Cloud Cover/Remarks	
		START	END			
A-3	a-b	0001-0014	19:00:43	19:03:56	65,000/19800	0-30% cumulus, frs. 0001-0012
	c-d	0015-0032	19:10:03	19:14:10	"	10% cumulus, frs. 0018-0020
	e-f	0033-0052	19:20:37	19:25:15	"	10-30% cumulus, frs. 0046-0052
	g-h	0053-0071	19:31:28	19:35:46	"	10-30% cumulus, frs. 0053-0059
	i-j	0072-0087	19:45:16	19:48:53	"	10% scattered cumulus entire line
	k-l	0088-0108	20:08:09	20:13:09	"	10% cumulus, frs. 0088-0089; 10-20% cumulus, frs. 0095-0108
	m-n	0109-0130	20:19:23	20:24:25	"	0-20% cumulus, frs. 0109-0120
	o-p	0131-0146	20:34:15	20:37:59	"	Clear
	q-r	0147-0173	20:42:38	20:48:52	"	10% cumulus, frs. 0148-0159; 10-20% cumulus, frs. 0163-0173
s-t	0174-0191	20:56:35	21:00:38	"	10-30% cumulus, frs. 0174-0181; 10% cumulus, frs. 0188-0191	
APS	---	---	18:50:--	21:12:--	"	APS #2 exposed full time; IOAT -40°C
	---	---	18:50:--	19:50:--	"	APS #3 exposed for 1 hr. from level-off to approximately Checkpoint j; IOAT -40°C
	---	---	21:14:27	21:15:27	60,000/18300	APS #1 exposed for 1 minute during descent; IOAT -40°C

FLIGHT 77-002

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DATA RUN

A-3 Configuration 



JNC-43N