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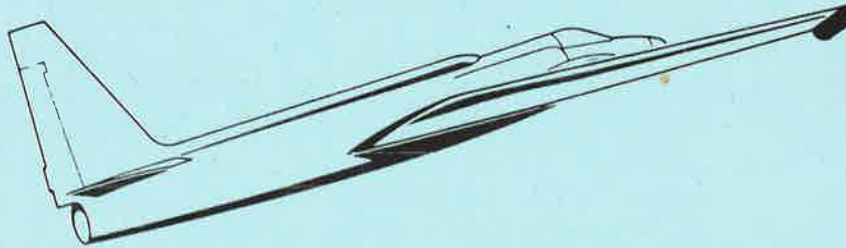
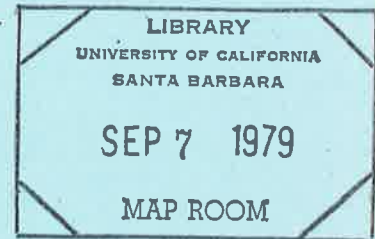
# Airborne Instrumentation Research Project

## Flight Summary Report

Flight No. 78-140

Date 3 October 1978

FSR- 1196



# NASA

National Aeronautics and  
Space Administration

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

**Airborne Missions and Applications Division**

# FLIGHT SUMMARY REPORT

Flight No: 78-140

Date: 3 October 1978

FSR No: 1196

Julian Date: 276

Sensor Package: Itek Optical Bar Panoramic Camera  
Aerosol Particulate Sampler (APS)

Aircraft No: 4

Purpose of Flight: #0753 Support  
Requestor: Weber  
#0047 Support  
Requestor: Ferry

Area(s) Covered: Eastern California

## SENSOR DATA

Accession No:	02685	---
Sensor ID No:	029	024
Sensor Type:	Optical Bar	APS
Focal Length:	24" 609.6mm	---
Film Type:	High Definition Aerochrome Infrared, S0-131	---
Filtration:	CC .20C	---
Spectral Band:	510-900nm	---
f Stop:	3.5	---
Shutter Speed:	1/375	---
No. of Frames:	1018	---
% Overlap:	60	---
Quality:	Excellent	---
Remarks:	---	Non-imaging sensor

## FLIGHT SUMMARY

78-140

This flight was flown in support of Flight Requests #0753 (Weber, US Forest Service) and #0047 (Ferry, NASA/ARC) under the FY 1978 Airborne Instrumentation Research Program (AIRP) plan. The Itek Optical Bar was utilized to acquire panoramic photography over eastern California (see Track Map). Aerosol Particulate Sampler (APS) data was also collected throughout the flight but is not indicated on the track map.

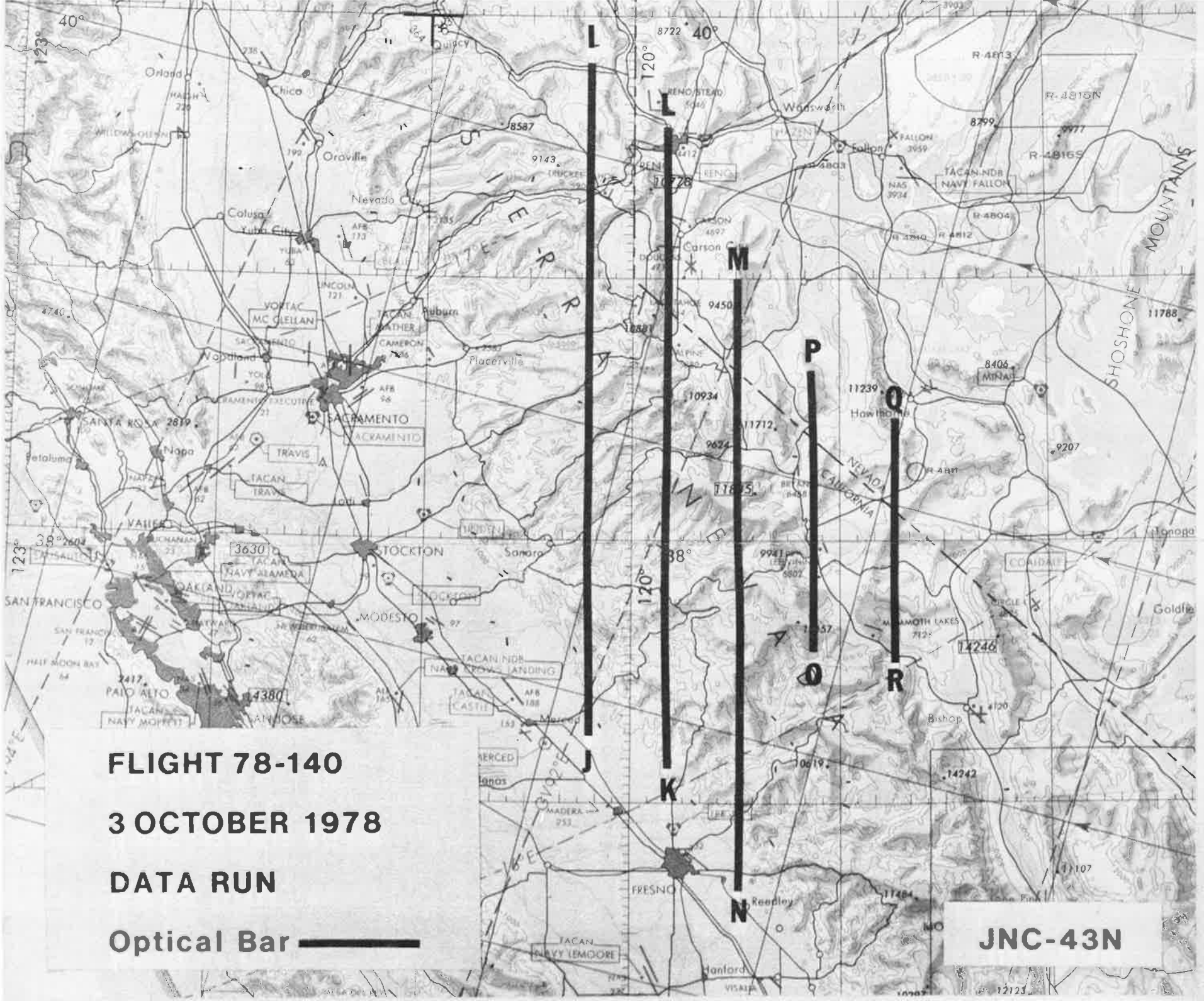
The weather was generally clear except for some minor cumulus clouds and forest fire smoke between Mono Lake and Lake Tahoe. The quality of the photography is excellent with no camera or processing malfunctions noted.

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. 78-140

	Check Points	Frame Numbers	Time (GMT—hr, min, sec)		Altitude, MSL feet/meters	Cloud Cover/Remarks
			START	END		
Optical Bar	A-B	0001-0094	18:34:42	18:48:11	65,000/19800	Clear; film splice, fr. 0066
	C-D	0095-0203	18:55:30	19:11:08	"	Clear
	E-F	0204-0322	19:15:32	19:32:33	"	Clear
	G-H	0323-0433	19:36:48	19:52:37	"	Clear
	I-J	0434-0587	19:59:00	20:20:56	"	Clear
	K-L	0588-0744	20:29:27	20:51:46	"	Forest fire, smoke, frs. 0639-0645; film splice, fr. 0639
	M-N	0745-0887	21:01:30	21:21:47	"	Minor smoke, frs. 0799-0807; minor scattered cumulus, frs. 0820-0830
	O-P	0888-0963	21:34:53	21:45:34	"	Minor cumulus, frs. 0888-0897
	Q-R	0964-1018	21:52:52	22:00:34	"	Clear
APS	---	---	18:16:00	22:07:00	65,000/19800	APS #1 and #2 exposed at level-off and sealed at descent



**FLIGHT 78-140**

**3 OCTOBER 1978**

**DATA RUN**

**Optical Bar** 

**JNC-43N**