

**National Aeronautics and Space Administration**

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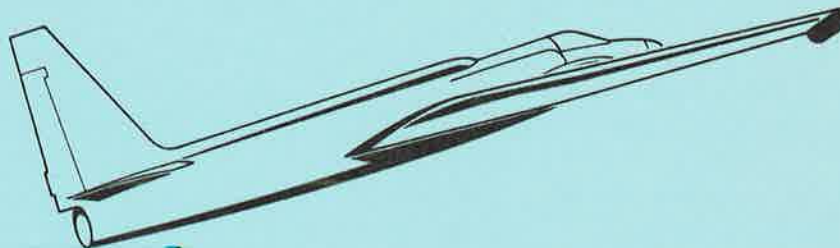
**Airborne Instrumentation Research Project**

**Flight Summary Report**

**Flight No.** 75-157

**Date** 11 September 1975

**FSR- 732**



**Data Research and Management Branch**

**Applications Division**

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

# NASA / ARC Airborne Instrumentation Research Project

## FLIGHT SUMMARY REPORT No. 732

Flight No: 75-157

Date: 11 September 1975

Aircraft No: 4

Julian Date: 254

Sensor Package: A-4 Configuration  
Aerosol Particulate Sampler (APS)

Purpose of Flight: #2319B Support (LANDSAT)  
Requestor: Brown  
#0047 Support  
Requestor: Ferry

Area(s) Covered: Tahoe Basin, California/Nevada

### SENSOR DATA

Accession No:	02219	02220	---
Sensor ID No:	034	038	024
Sensor Type:	RC-10	HR-732	APS
Focal Length:	12" 304.66mm	24" 609.6mm	---
Film Type:	Aerial Color, S0-242	High Definition Aerochrome IR, S0-127	---
Filtration:	Clear Glass	CC .10B + CC .15C	---
Spectral Band:	400-700nm	510-900nm	---
f Stop:	4	8	---
Shutter Speed:	1/250	1/75	---
No. of Frames:	50	94	---
% Overlap:	60	60	---
Quality:	Excellent	Excellent	---

Remarks:

Non-imaging  
sensor

## FLIGHT SUMMARY

75-157

This flight was a LANDSAT Follow-on flight in support of Flight Requests #2319B (Brown, Department of Water Resources/State of California) and #0047 (Ferry, NASA/ARC) under the FY 1976 Airborne Instrumentation Research Program (AIRP) plan. The flight provides A-4 Configuration and Aerosol Particulate Sampler (APS) data over the Lake Tahoe Basin of California and Nevada (see Track Map).

Extensive cumulus cloud cover was experienced on all flight lines (see Flight Line Data). The quality of the data is rated excellent, however, the HR-732 imagery has one blurred frame (#0021) due to a shutter release malfunction during film transport. Additionally, the sensor ID on the RC-10 was erroneously set to read #033 when it should have read #034.

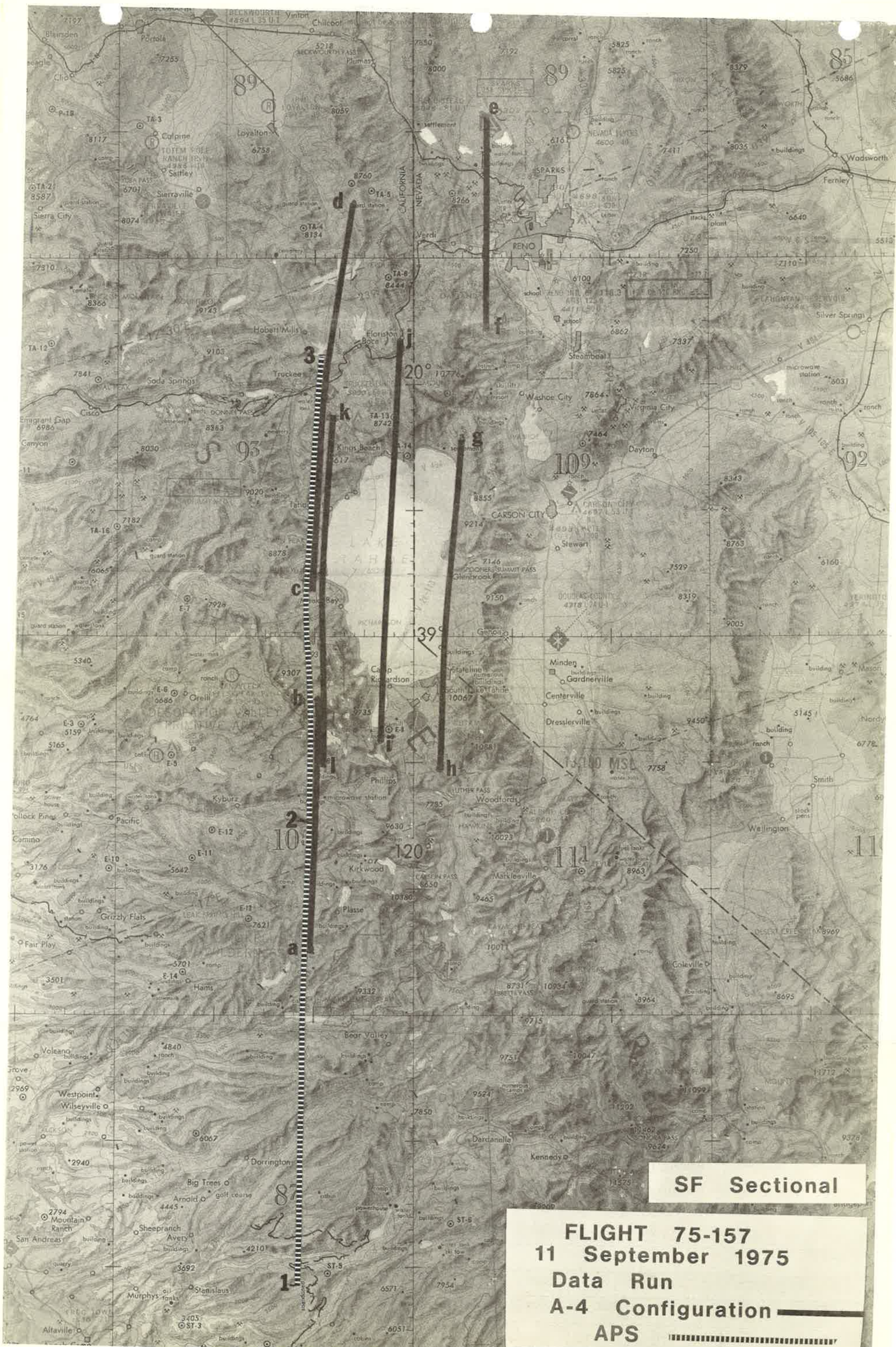
Because of extensive cloud cover on the first flight line (a-d) the camera was turned off and the majority of the line reflight (k-l). The gap between f and g is also the result of extensive cloud cover. No other malfunctions were noted.

The Aerosol Particulate Sampler has been developed and is operated by Dr. Guy Ferry of the NASA-Ames Research Center Planetary Science and Applications Branch. 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. 75-157

Check Points	Frame Numbers	Time (GMT - hr, min, sec)		Altitude, MSL feet/meters	Cloud Cover/Remarks	
		START	END			
HR-732	a-b	9997-0008	17:29:10	17:31:54	65,000	10-80% cumulus, frs. 0001-0008
	c-d	0009-0033	17:33:18	17:38:46	"	10-80% light to heavy cumulus; fr. 0021 blurred
	e-f	0034-0041	17:41:41	17:43:26	"	10-30% light cumulus
	g-h	0042-0056	17:45:17	17:48:45	"	20-40% moderate cumulus
	i-j	0057-0074	17:57:07	18:01:22	"	10-30% moderate cumulus
	k-1	0075-0090	18:08:05	18:11:48	"	10-40% moderate cumulus
RC-10	a-b	6594-6599	17:29:08	17:31:30	65,000	10-80% cumulus, frs. 6596-6599
	c-d	6600-6612	17:33:13	17:38:32	"	10-70% cumulus
	e-f	6613-6616	17:41:59	17:43:04	"	10-20% cumulus
	g-h	6617-6624	17:45:13	17:48:35	"	20-60% cumulus
	i-j	6625-6634	17:57:04	18:01:29	"	10-30% cumulus
	k-1	6635-6643	18:08:00	18:11:42	"	30-50% cumulus
APS	1-2	---	17:20:--	17:30:--	65,000	APS #1 opened and closed
	2-3	---	17:30:--	17:40:--	"	APS #2 opened and closed



**SF Sectional**

**FLIGHT 75-157**  
**11 September 1975**  
**Data Run**  
**A-4 Configuration**  
**APS**

