

**National Aeronautics and Space Administration**

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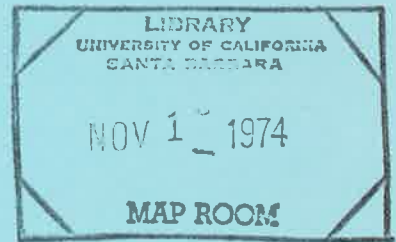
**Earth Resources Aircraft Project**

**Flight Summary Report**

**Flight No.** 74-074

**Date** 9 May 1974

**FSR- 456**



**Airborne Science Office**

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

# NASA/ARC Earth Resources Aircraft Project

## FLIGHT SUMMARY REPORT

FSR: 456

Flight No: 74-074

Date: 9 May 1974

Aircraft No: 4

Julian Date: 129

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

Purpose of Flight: ERAP Data R&D Support  
74-SR-0047 Support (APS)

Area(s) Covered: Merced County, California

### SENSOR DATA

|                    |                                                                                          |                 |                                  |                                 |                                     |
|--------------------|------------------------------------------------------------------------------------------|-----------------|----------------------------------|---------------------------------|-------------------------------------|
| Accession No:      | 01745                                                                                    | 01746           | 01747                            | 01748                           | 01749                               |
| Sensor ID No:      | 011                                                                                      | 012             | 013                              | 014                             | 023                                 |
| 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:         | Plus-X,<br>2402                                                                          | Plus-X,<br>2402 | Infrared<br>Aerographic,<br>2424 | Aerochrome<br>Infrared,<br>2443 | Panatomic-X<br>Aerographic,<br>3400 |
| Spectral Band:     | 475-575nm                                                                                | 580-680nm       | 690-760nm                        | 510-900nm                       | 510-700nm                           |
| f Stop:            | 16                                                                                       | 13.5            | 9.5                              | 9.5                             | 8                                   |
| Shutter Speed:     | 1/250                                                                                    | 1/250           | 1/250                            | 1/250                           | 1/200                               |
| No. of Frames:     | 68                                                                                       | 68              | 68                               | 68                              | 58                                  |
| % Overlap          | 60                                                                                       | 60              | 60                               | 60                              | 60                                  |
| Quality            | Excellent                                                                                | Excellent       | Excellent                        | Excellent                       | Excellent                           |
| Remarks            | Aerosol Particulate Sampler (APS), Sensor ID No. 024,<br>also flown (non-imaging sensor) |                 |                                  |                                 |                                     |

## **FLIGHT SUMMARY**

74-074

This flight was conducted in support of the ERAP Data Facility's R&D Program concerned with developing analysis techniques for deriving and quantifying land use and other types of information from high altitude photography. The test area selected for this program is Merced County, California.

All camera imagery obtained on this flight is of excellent quality with no malfunctions noted. The entire test area was cloud-free.

The Aerosol Particulate Sampler (APS) was also flown on this flight in support of the Planetary Sciences and Applications Branch of NASA-Ames Research Center under the auspices of Dr. Guy Ferry. 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. 74-074

|        | Check Points | Frame Numbers | Time (GMT—hr. min, sec) |          | Altitude, MSL (feet) | Cloud Cover/Remarks      |
|--------|--------------|---------------|-------------------------|----------|----------------------|--------------------------|
|        |              |               | START                   | END      |                      |                          |
| VINTEN | A-B          | 0001-0014     | 18:29:44                | 18:40:29 | 65,000               | Clear                    |
|        | C-D          | 0015-0027     | 18:45:01                | 18:54:32 | "                    | "                        |
|        | E-F          | 0028-0039     | 18:58:18                | 19:07:25 | "                    | "                        |
|        | G-H          | 0040-0053     | 19:11:32                | 19:22:17 | "                    | "                        |
|        | I-J          | 0054-0068     | 19:25:54                | 19:37:28 | "                    | "                        |
| RC-10  | A-B          | 7067-7078     | 18:29:46                | 18:40:28 | 65,000               | Clear                    |
|        | C-D          | 7079-7089     | 18:45:10                | 18:54:32 | "                    | "                        |
|        | E-F          | 7090-7099     | 18:58:25                | 19:07:12 | "                    | "                        |
|        | G-H          | 7100-7111     | 19:11:27                | 19:22:10 | "                    | "                        |
|        | I-J          | 7112-7124     | 19:25:48                | 19:37:29 | "                    | "                        |
| APS    | 1-2          | ----          | 18:20:00                | 18:50:00 | 65,000               | APS #1 opened and closed |
|        | 2-3          | ----          | 18:50:00                | 19:20:00 | "                    | APS #2 opened and closed |

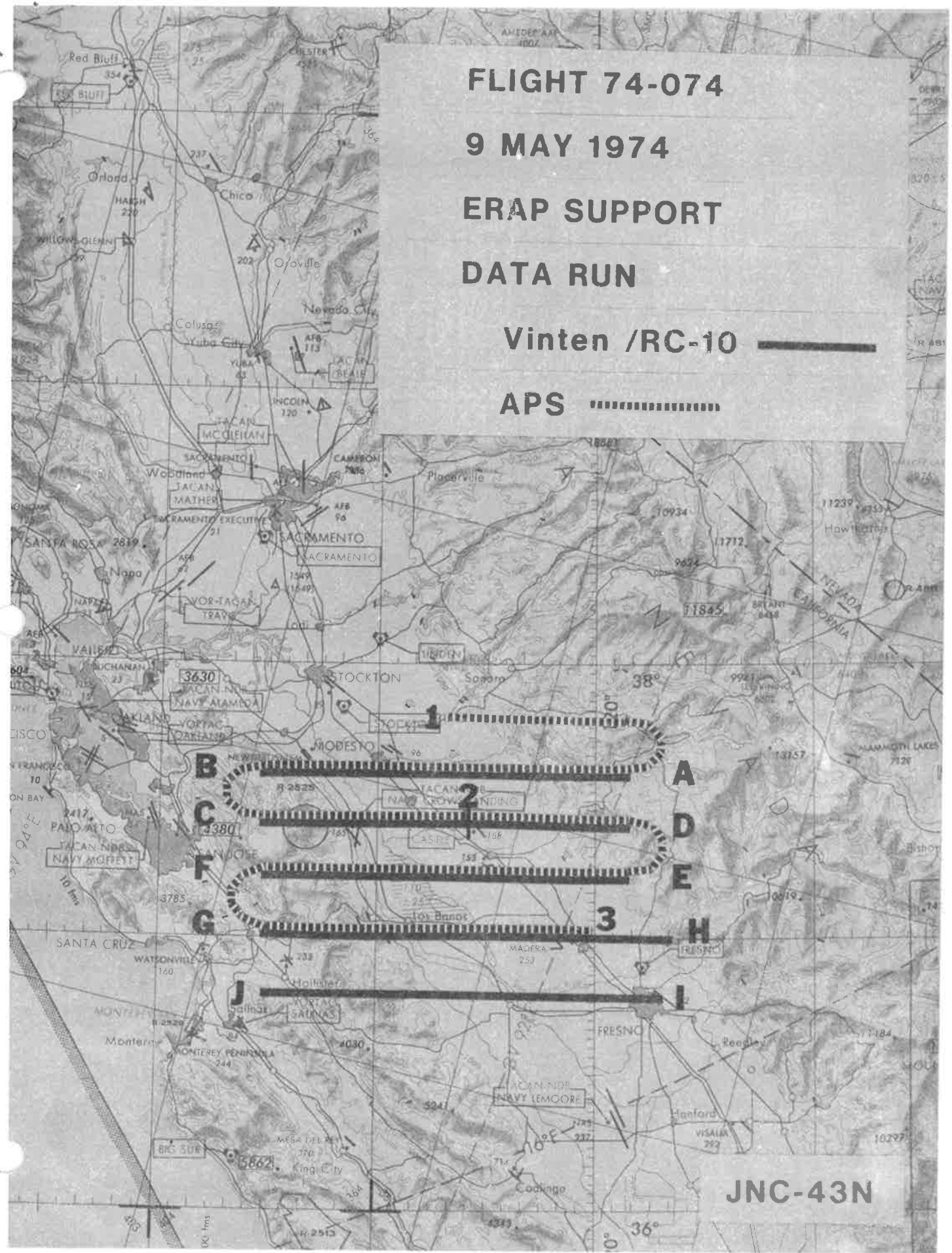
**FLIGHT 74-074**

**9 MAY 1974**

**ERAP SUPPORT  
DATA RUN**

**Vinten /RC-10** 

**APS** 



**JNC-43N**