

# FLIGHT SUMMARY REPORT

**Flight Number:** 96-034  
**Calendar/Julian Date:** 13 November 1995 • 317  
**Sensor Package:** IRIS II Panoramic Camera  
**Area(s) Covered:** Sierra Nevada

**Investigator(s):** Functional Sensor

**Aircraft #:** 708

## SENSOR DATA

**Accession #:** 05041  
**Sensor ID #:** 070  
**Sensor Type:** IRIS  
**Focal Length:** 24"  
609.6 mm  
**Film Type:** High Definition  
Aerochrome IR  
SO-131  
**Filtration:** cc.20B  
**Spectral Band:** 510-900 nm  
**f Stop:** 3.5  
**Shutter Speed:** 1/173  
**# of Frames:** 247  
**% Overlap:** 60  
**Quality:** Excellent  
**Remarks:**

## Airborne Science and Applications Program

The Airborne Science and Applications Program (ASAP) is supported by three ER-2 high altitude Earth Resources Survey aircraft. These aircraft are operated by the High Altitude Missions Branch at NASA-Ames Research Center, Moffett Field, California. The ER-2s are used as readily deployable high altitude sensor platforms to collect remote sensing and *in situ* data on earth resources, celestial phenomena, atmospheric dynamics, and oceanic processes. Additionally, these aircraft are used for electronic sensor research and development and satellite investigative support.

The ER-2s are flown from various deployment sites in support of scientific research sponsored by NASA and other federal, state, university, and industry investigators. Data are collected from deployment sites in Kansas, Texas, Virginia, Florida, and Alaska. Cooperative international scientific projects have deployed the aircraft to sites in Great Britain, Australia, Chile, and Norway

Photographic and digital imaging sensors are flown aboard the ER-2s in support of research objectives defined by the sponsoring investigators. High resolution mapping cameras and digital multispectral imaging sensors are utilized in a variety of configurations in the ER-2s' four pressurized experiment compartments. The following provides a description of the digital multispectral sensor(s) and camera(s) used for data collection during this flight.

### Camera Systems

Various camera systems and films are used for photographic data collection. Film types include high definition color infrared, natural color, and black and white emulsions. Available photographic systems are as follows:

- Wild-Heerbrugg RC-10 metric mapping camera
  - 9 x 9 inch film format
  - 6 inch focal length lens provides area coverage of 16 x 16 nautical miles from 65,000 feet
  - 12 inch focal length lens provides area coverage of 8 x 8 nautical miles from 65,000 feet
- Hycon HR-732 large scale mapping camera
  - 9 x 18 inch film format
  - 24 inch focal length lens provides area coverage of 4 x 8 nautical miles from 65,000 feet
- IRIS II Panoramic camera
  - 4.5 x 34.7 inch film format
  - 24 inch focal length lens
  - 90 degree field of view provides area coverage of 2 x 21.4 nautical miles from 65,000 feet

The U.S. Geological Survey's EROS Data Center at Sioux Falls, South Dakota serves as the archive and product distribution facility for NASA-Ames aircraft acquired photographic and digital imagery. For information regarding photography and digital data (including areas of coverage, products, and product costs) contact EROS Data Center, Customer Services, Sioux Falls, South Dakota 57198 (Telephone: 605-594-6151).

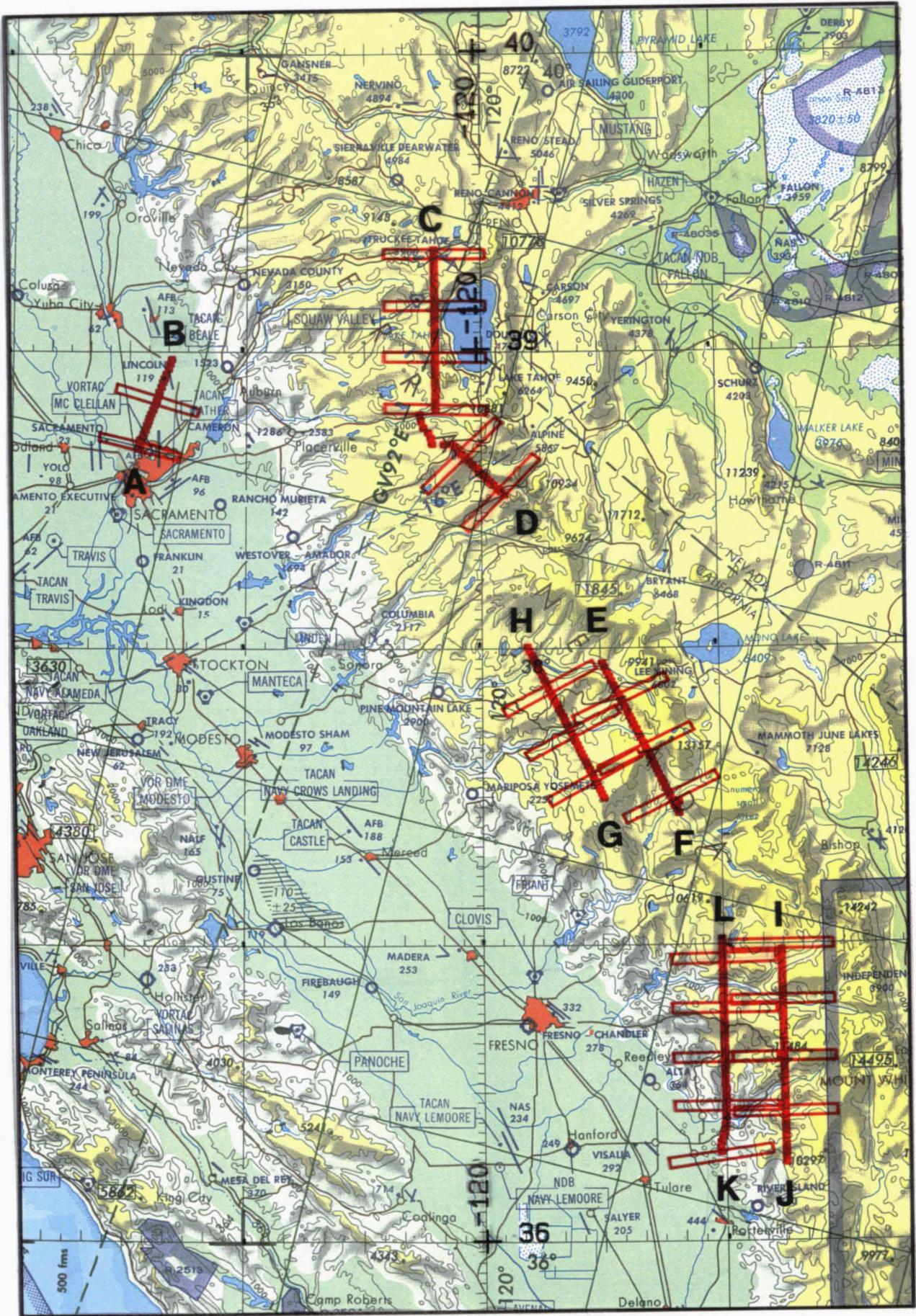
Additional information regarding ER-2 acquired photographic and digital data is available through the Aircraft Data Facility at Ames Research Center. For specific information regarding flight documentation, sensor parameters, and areas of coverage contact the Aircraft Data Facility, NASA-Ames Research Center, Mail Stop 240-6, Moffett Field, California 94035-1000 (Telephone: 415-604-6252).

**CAMERA FLIGHT LINE DATA  
FLIGHT NO. 96-034**

Accession # 05041  
Sensor # 070

Check Points	Frame Numbers	Time (GMT-hr, min, sec)		Altitude, MSL feet/meters	Cloud Cover/Remarks
		START	END		
A - B	0001-0021	21:16:44	21 19 36	58395/17799	Clear, light strikes (frames 0001 and 0005), minor smoke (frames 0017-0021)
C - D	0022-0079	21 38 58	21 47 05	67895/20694	Clear, light strike (frames 0025-0026), oblique -- acquired in turn (frames 0057-0063)
E - F	0080-0115	21 52 38	21 57 38	68478/20872	Clear, light strike (frame 0084)
G - H	0116-0154	22 01 38	22 07 04	68618/20915	Clear, light strike (frame 0120)
I - J	0155-0198	22 22 11	22 28 20	69066/21051	Clear, light strike (frames 0154 and 0159), smoke (frames 0178-0192), 20-40% cirrus (frames 0193-0198)
K - L	0199-0247	22 31 36	22 38 27	69331/21132	10-40% cirrus (frames 0199-0214), light strike (frames 0203 and 0247); oblique (frame 0201)





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IRIS

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