# FLIGHT SUMMARY REPORT

**Flight Number:** 95-061

**Calendar/Julian Date:** 14 February 1995 • 045

**Sensor Package:** Dual Hycon HR-732

**Area(s) Covered:** Santa Cruz Mountains

**Investigator(s):** Pilot Proficiency **Aircraft #:** 708

## SENSOR DATA

| | | |
|---|---|---|
| **Accession #:** | 04882 | 04883 |
| **Sensor ID #:** | 020 | 039 |
| **Sensor Type:** | HR-732 | HR-732 |
| **Focal Length:** | 24"<br>609 mm | 24"<br>609 mm |
| **Film Type:** | Aerochrome IR<br>SO-134 | High Definition Aerial<br>3414 |
| **Filtration:** | Wratten 12 | Wratten 12 |
| **Spectral Band:** | 510-900 nm | 510-700 nm |
| **f Stop:** | 9 | 8 |
| **Shutter Speed:** | 1/250 | 1/75 |
| **# of Frames:** | 12 | 12 |
| **% Overlap:** | 60 | 60 |
| **Quality:** | Excellent | Good |
| **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:

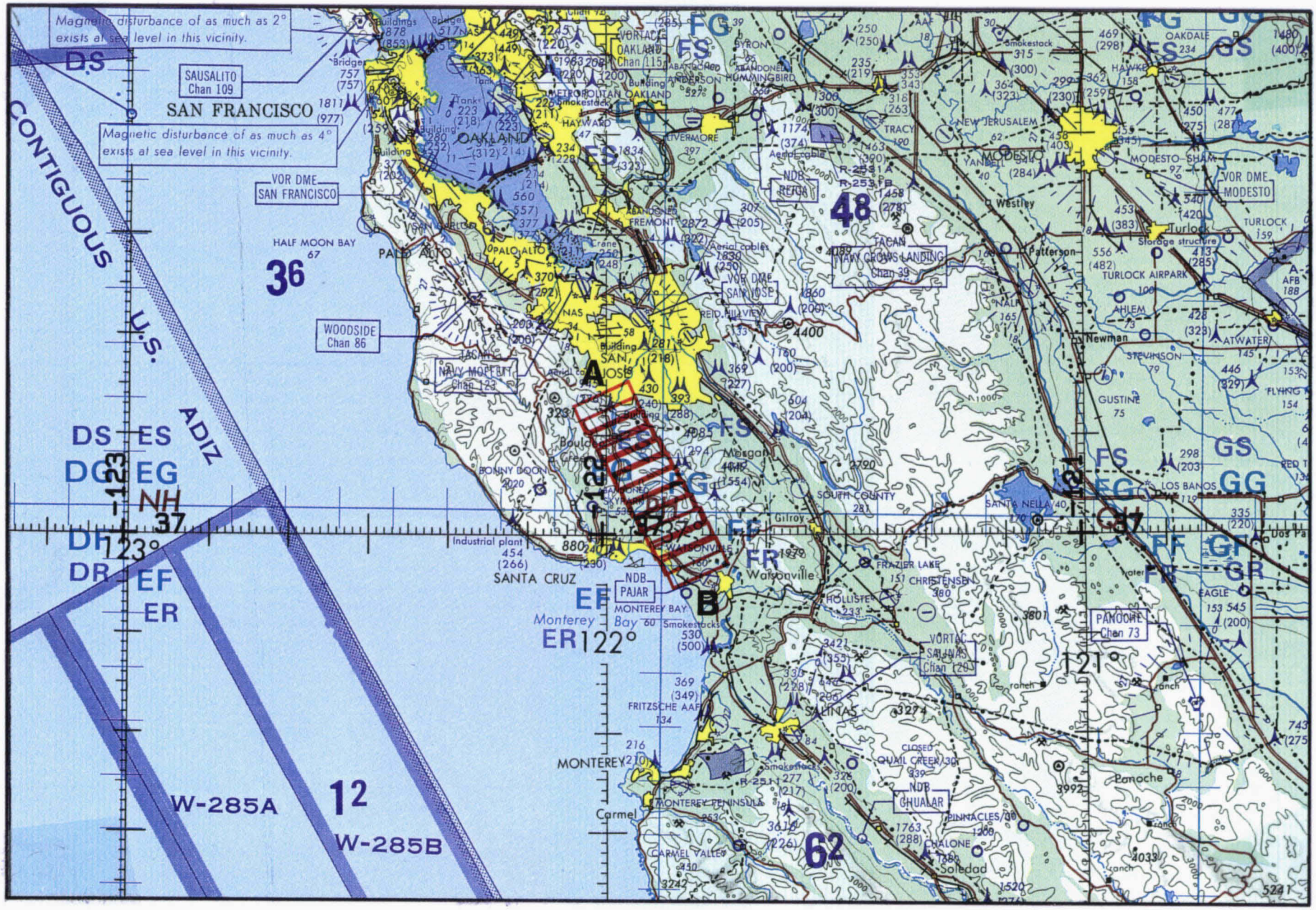
- Wild-Heerbrugg RC-10 metric mapping camera
  - 9 x 9 inch film format
  - 6 inch focal length lens provides area coverage of 16 x 16 nautical miles from 65,000 feet
  - 12 inch focal length lens provides area coverage of 8 x 8 nautical miles from 65,000 feet
- Hycon HR-732 large scale mapping camera
  - 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

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. 95-061

| Check Points | Frame Numbers | Time (GMT-hr, min, sec) START | Time (GMT-hr, min, sec) END | Altitude, MSL feet/meters | Cloud Cover/Remarks |
|---|---|---|---|---|---|
| **Accession #04882 Sensor #020** | | | | | |
| A - B | 0001-0012 | 21:43:25 | 21:46:07 | 50000/15240 | Clear |
| **Accession #04883 Sensor #039** | | | | | |
| A - B | 0001-0012 | 21:43:38 | 21:46:20 | 50000/15240 | Clear |




FLIGHT 95-061 14 FEBRUARY 1995 A/C 708 DUAL HR-732 ONC 8-18