FLIGHT SUMMARY REPORT

Flight Number: 94-055

Calendar/Julian Date: 30 March 1994 • 89

Sensor Package: Wild-Heerbrug RC-10
Dual Hycon HR-732

Area(s) Covered: Central California

Investigator(s): Functional Sensor Check **Aircraft #:** 706

SENSOR DATA

Accession #:	04707	04708	04709
Sensor ID #:	076	020	039
Sensor Type:	RC-10	HR-732	HR-732
Focal Length:	12" 304.89 mm	24" 609 mm	24" 609 mm
Film Type:	Aerochrome IR SO-060	High Definition Aerochrome IR SO-131	Aerochrome IR SO-060
Filtration:	Wratten 12	None	Wratten 12
Spectral Band:	510-900 nm	510-900 nm	510-900 nm
f Stop:	11	8	11
Shutter Speed:	1/225	1/75	1/225
# of Frames:	48	93	93
% Overlap:	60	60	60
Quality:	Excellent	Excellent	Good
Remarks:	Camera clock offset 93.5 seconds from navigation data	Camera clock offset 9.8 seconds from navigation data	1 stop over-exposed

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 camera system(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-Heerbrug 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. 94-055

Accession # 04707

Sensor # 076

Check Points	Frame Numbers	Time (GMT-hr, min, sec)		Altitude, MSL feet/meters	Cloud Cover/Remarks
		START	END		
A - B	2835-2851	19:41:36	19:49:14	65000/19800	10-30% scattered cumulus (frames 2841-2846)
C - D	2852-2863	19:52:34	19:57:48	"	10% cumulus (frames 2852-2854); minor cumulus (frames 2859-2863)
E - F	2864-2882	20:01:35	20:10:08	"	Minor-10% cumulus (frames 2864-2867)

CAMERA FLIGHT LINE DATA
FLIGHT NO. 94-055

Accession # 04708

Sensor # 020

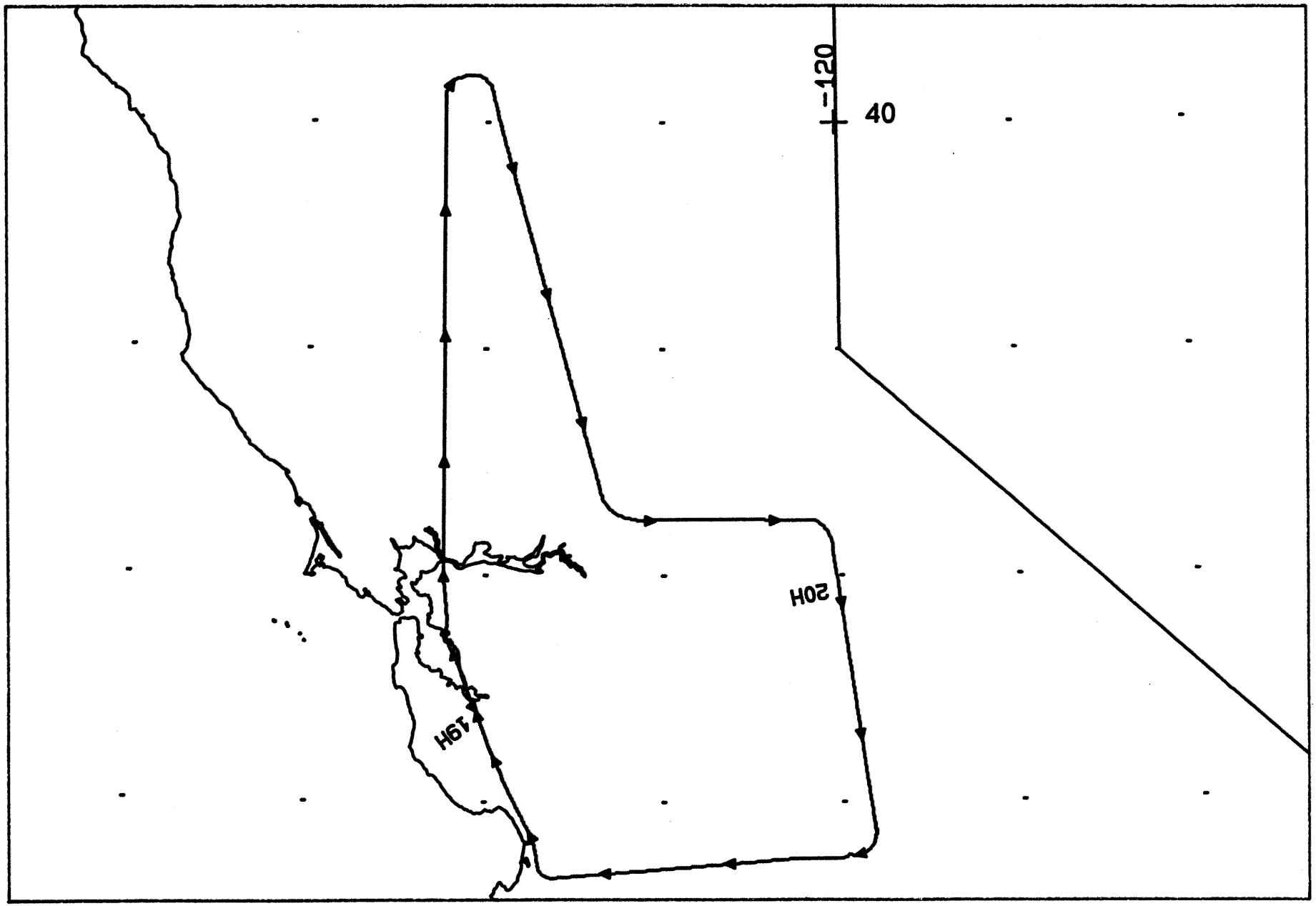
Check Points	Frame Numbers	Time (GMT-hr, min, sec)		Altitude, MSL feet/meters	Cloud Cover/Remarks
		START	END		
A - B	0001-0033	19:39:57	19:47:44	65000/19800	Minor cumulus (frames 0001-0002); minor-30% cumulus (frames 0006-0024)
C - D	0034-0056	19:50:55	19:56:16	"	10-20% cumulus (frames 0035-0038); minor cumulus (frames 0049-0050 and 0053-0055)
E - F	0057-0093	19:59:56	20:08:40	"	Minor cumulus (frames 0061-0063)

CAMERA FLIGHT LINE DATA
FLIGHT NO. 94-055

Accession # 04709

Sensor # 039

Check Points	Frame Numbers	Time (GMT-hr, min, sec) START	Time (GMT-hr, min, sec) END	Altitude, MSL feet/meters	Cloud Cover/Remarks
A - B	0001-0033	19:39:57	19:47:44	65000/19800	Minor cumulus (frames 0001-0002); minor-30% cumulus (frames 0006-0024)
C - D	0034-0056	19:50:55	19:56:16	"	10-20% cumulus (frames 0035-0038); minor cumulus (frames 0049-0050 and 0053-0055)
E - F	0057-0093	19:59:56	20:08:40	"	Minor cumulus (frames 0061-0063)
DATA BLOCK OVEREXPOSED, TIMES TAKEN FROM ROLL 04708					



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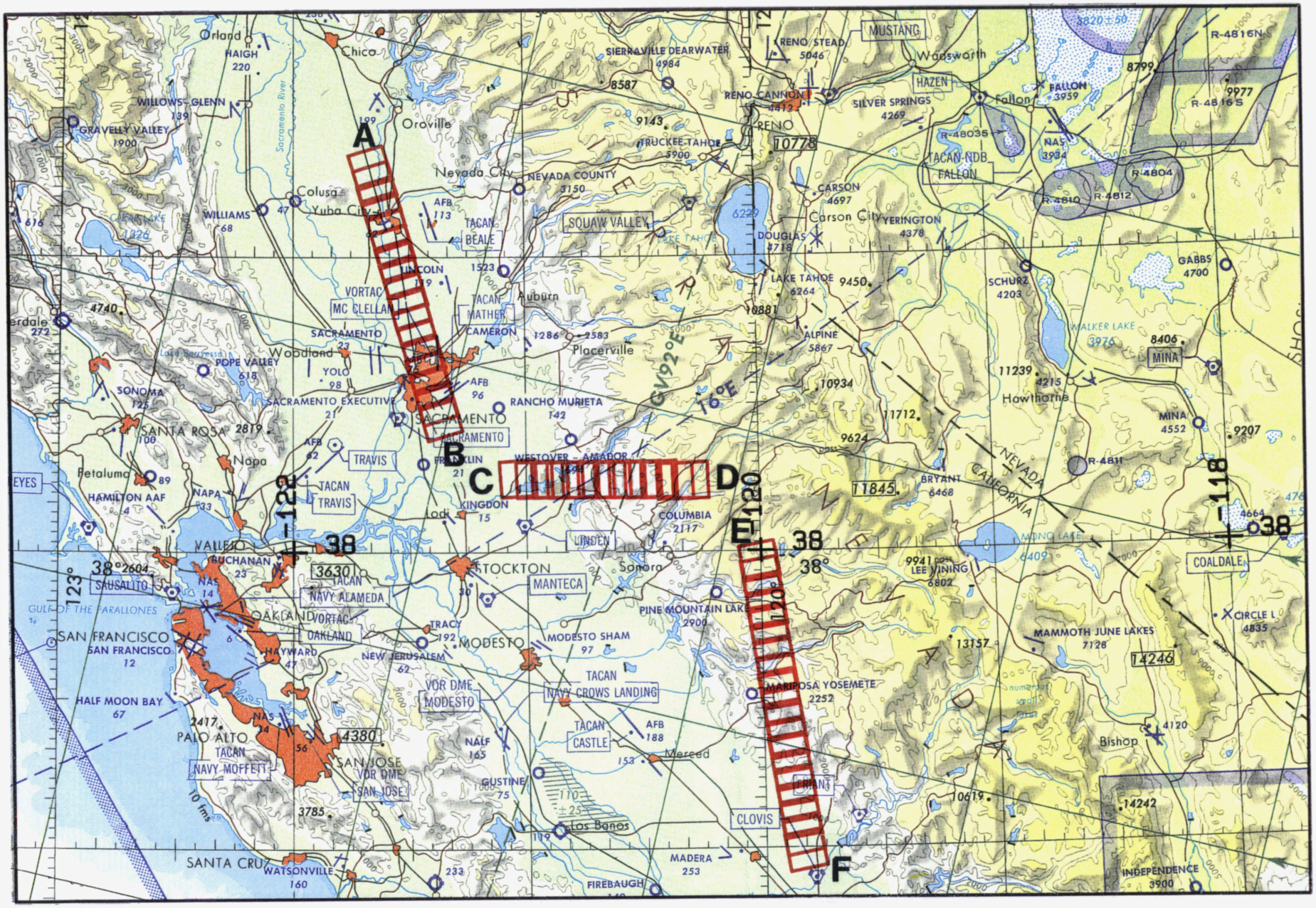

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