FLIGHT SUMMARY REPORT

Flight #: 90-076

Date: 03 April 1990

Sensor Package: Wild-Heerbrug RC-10

Area(s) Covered: Greater Sacramento Valley, California

Investigator(s): Penberth, Dept. of Conservation

Aircraft #: 706

Flight Request: 90R255

Julian Date: 093

SENSOR DATA

Accession #:	04010
Sensor ID #:	036
Sensor Type:	RC-10
Focal Length:	6" 153.19 mm
Film Type:	High Definition Aerochrome IR SO-131
Filtration:	cc.10B
Spectral Band:	510-900 nm
f Stop:	4
Shutter Speed:	1/150
# of Frames:	219
% 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.

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

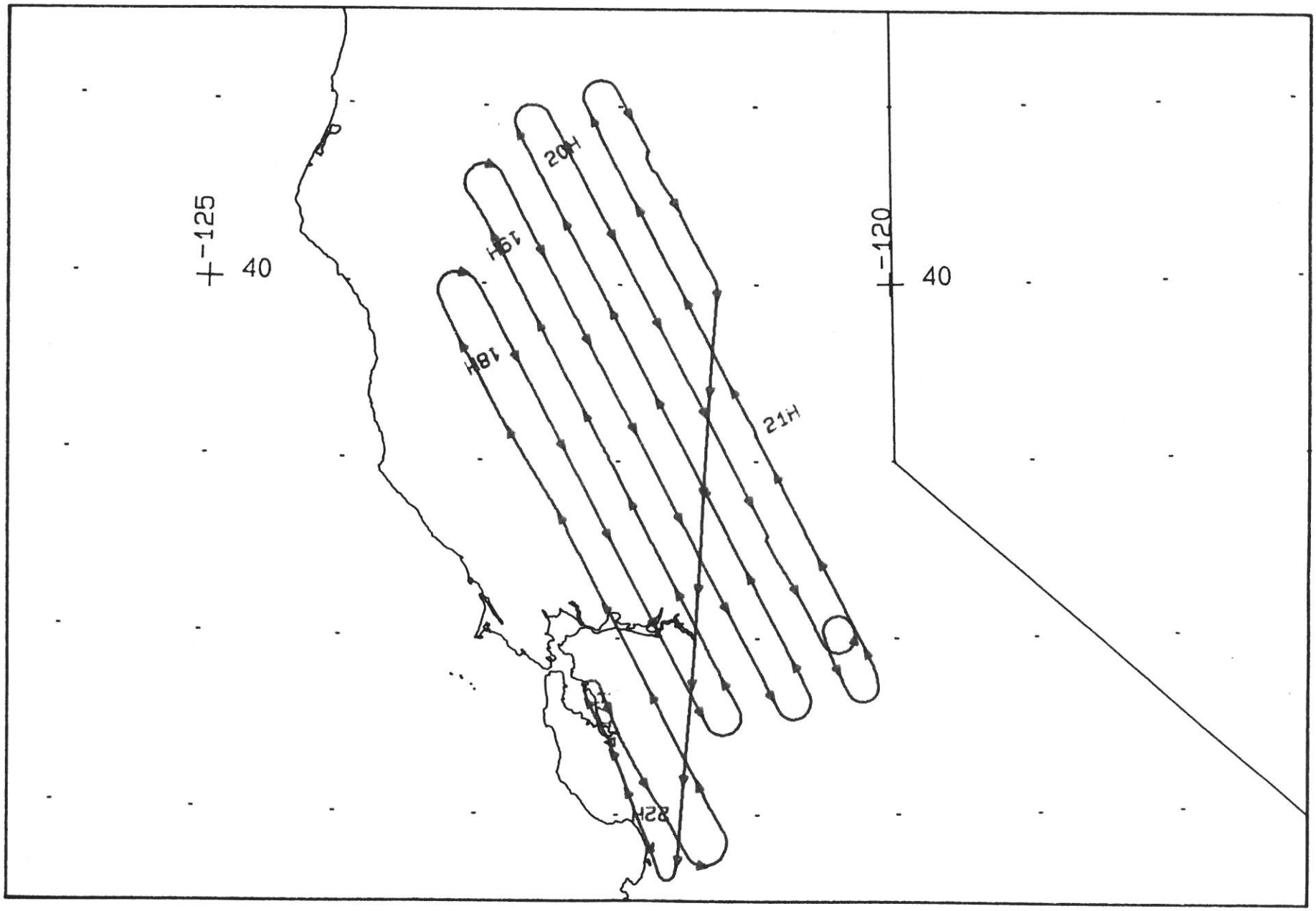
- IRIS II Panoramic camera
  - 4.5 x 34.7 inch film format
  - 24 inch focal length lens
  - 90 degree field of view provides area coverage of 2 x 21.4 nautical miles from 65,000 feet

CAMERA FLIGHT LINE DATA
FLIGHT NO. 90-076

Accession # 04010

Sensor # 036

Check Points	Frame Numbers	Time (GMT-hr, min, sec)		Altitude, MSL feet/meters	Cloud Cover/Remarks
		START	END		
A - B	2386-2397	17:31:36	17:41:22	65000/19800	Clear
C - D	2398-2423	17:58:25	18:22:03	"	Clear
E - F	2424-2453	18:26:36	18:53:28	"	Clear
G - H	2454-2486	18:58:48	19:28:16	"	Clear
I - J	2487-2521	19:31:49	20:03:08	"	Minor smoke {ag burn} (frames 2506-2508)
K - L	2522-2553	20:07:10	20:36:23	"	Clear
L - M	2554-2557	20:42:33	20:44:55	"	Clear
N - O	2558-2592	20:48:18	21:20:07	"	Minor smoke {controlled burn} (frames 2561-2563); 10% minor cumulus (frames 2562-2570 and 2581; 10-20% cirro cumulus (frames 2586-2588)
P - Q	2593-2604	21:23:12	21:33:33	"	10-80% strato cumulus, cirro cumulus, and cumulus (frames 2595-2601)



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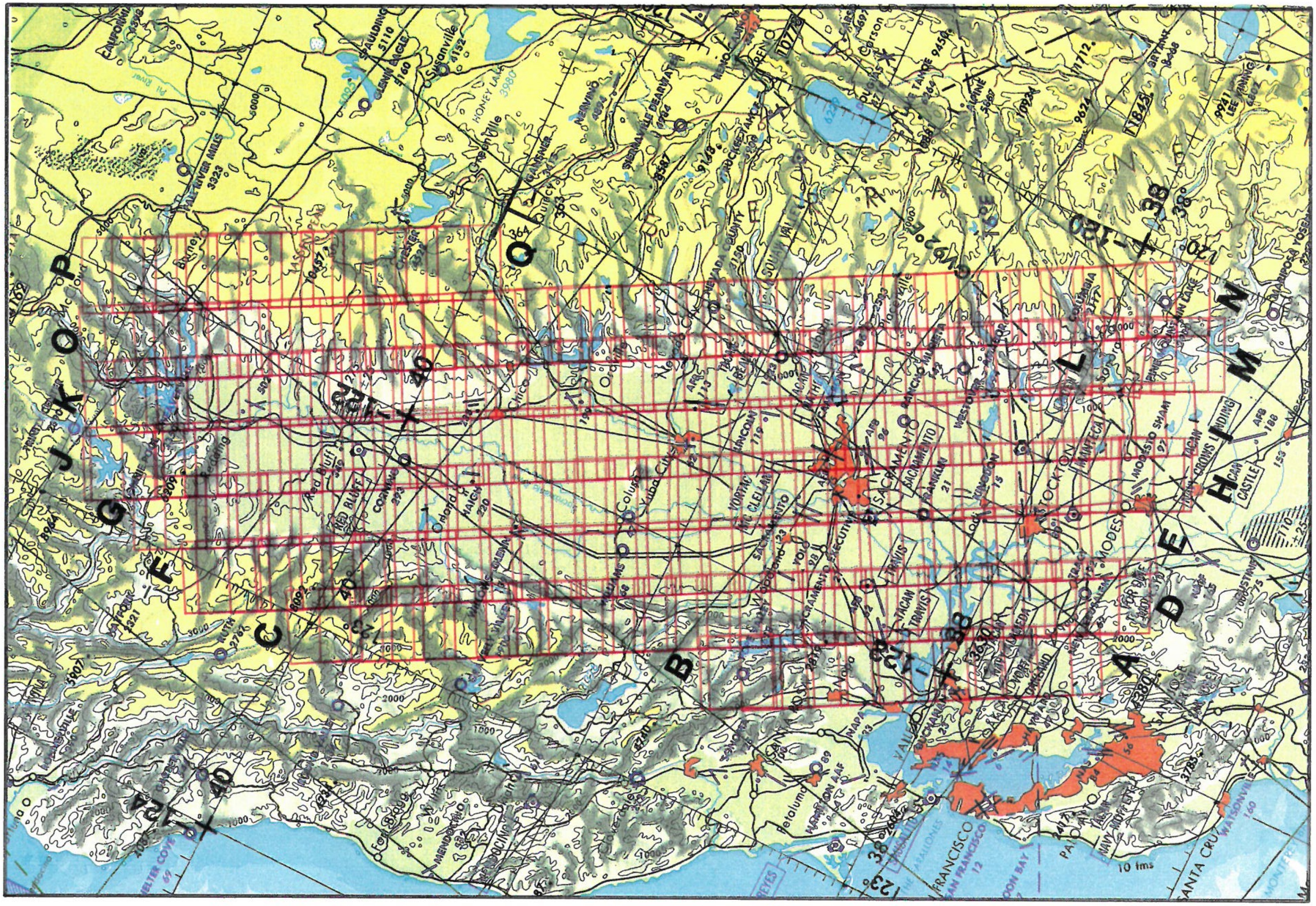

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