FLIGHT SUMMARY REPORT

Flight Number: 90-021

Date: 1 November 1989

Julian Date: 305

Aircraft #: 708

Sensor Package: A-4 Configuration
Hycon HR-732, Wild-Heerbrug RC-10

Purpose of Flight: 90X001
Project Support

Area(s) Covered: Stanislaus National Forest, California

SENSOR DATA

Accession #:	03971	03972
Sensor ID #:	026	039
Sensor Type:	RC-10	HR-732
Focal Length:	12" 304.97 mm	24" 609.6 mm
Film Type:	High Definition Aerochrome IR SO-127	High Definition Aerochrome IR SO-127
Filtration:	cc .10B	cc .20B
Spectral Band:	510-900 nm	510-900 nm
f Stop:	4	8
Shutter Speed:	1/200	1/75
# of Frames:	54	76
% Overlap:	60	60
Quality:	Excellent	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. 90-021

Accession No. 03971

Sensor # 026

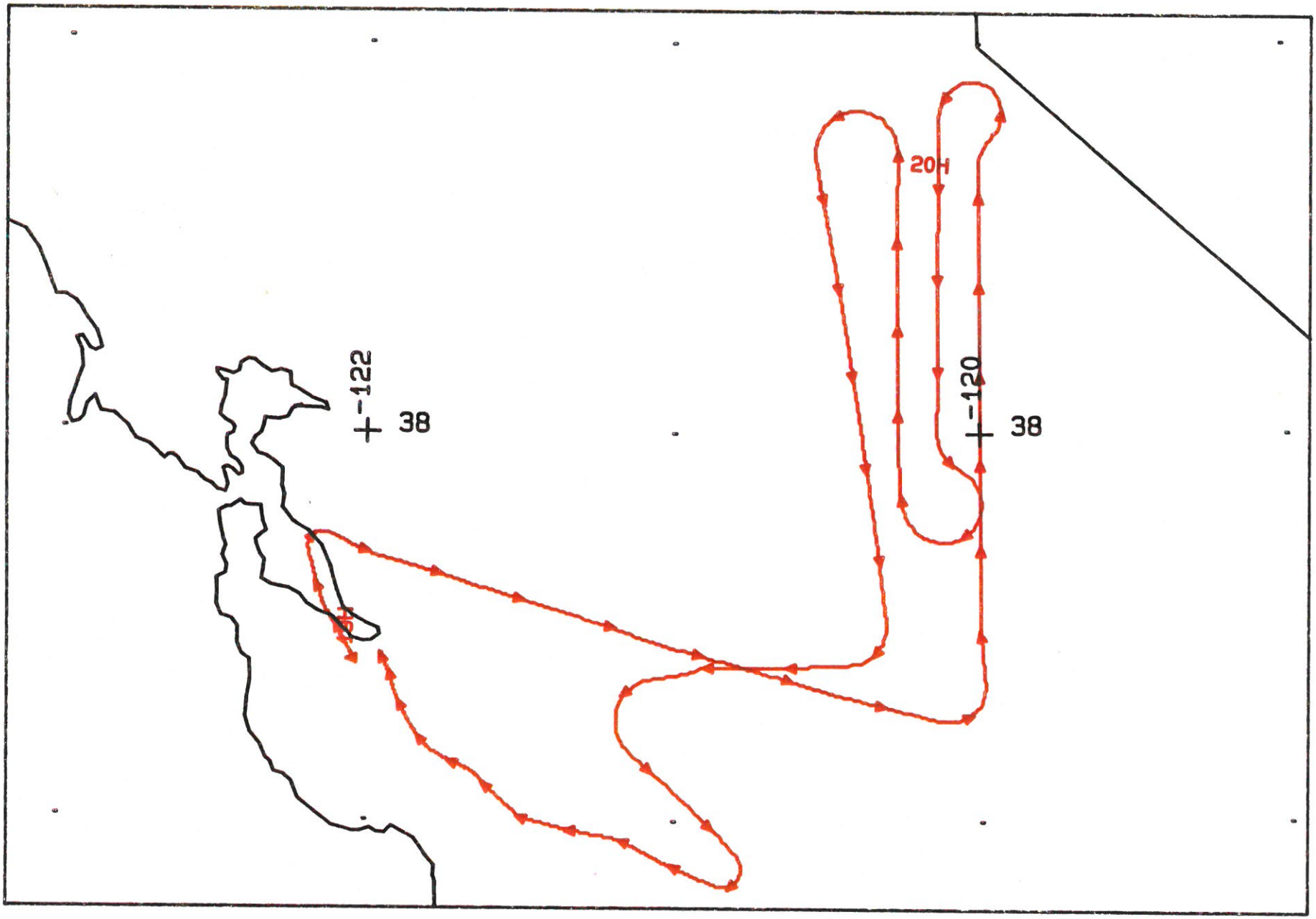
Check Points	Frame Numbers	Time (GMT-hr, min, sec)		Altitude, MSL feet/meters	Cloud Cover/Remarks
		START	END		
A - B	5613-5630	19:29:34	19:37:23	65000/19800	Clear; oblique (frame 5630)
C - D	5631-5644	19:41:35	19:47:28	"	Clear; minor smoke obscuration from slash burn (frames 5638-5641)
E - F	5645-5661	19:53:17	20:00:37	"	Clear; minor smoke obscuration from slash burn (frames 5659-5661)
G - H	5662-5666	20:17:22	20:18:50	"	Clear; stepwedge overprinted (frames 5664-5665)

CAMERA FLIGHT LINE DATA
FLIGHT NO. 90-021

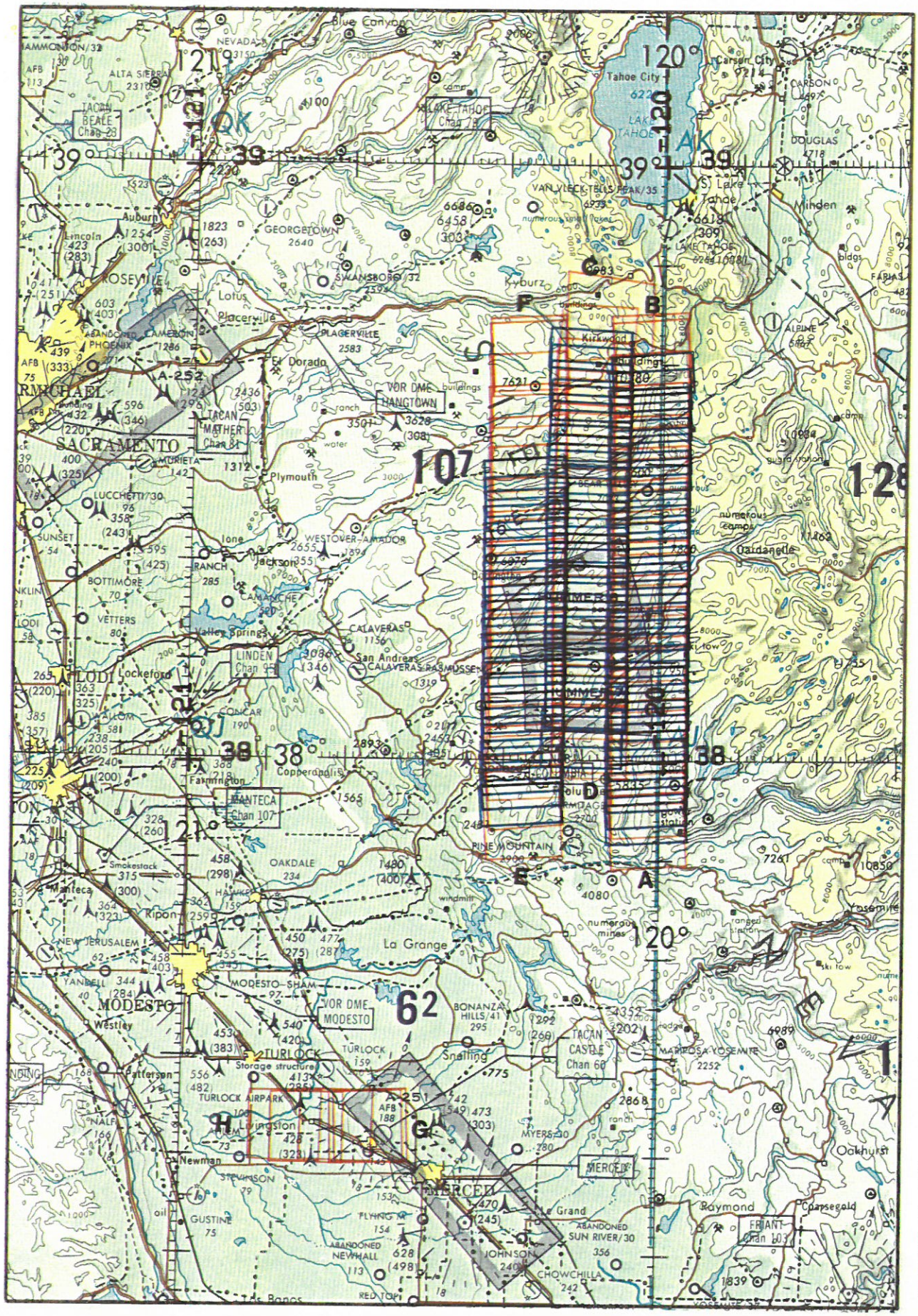
Accession No. 03972

Sensor # 039

Check Points	Frame Numbers	Time (GMT-hr, min, sec)		Altitude, MSL feet/meters	Cloud Cover/Remarks
		START	END		
A - B	0001-0029	19:28:53	19:35:46	65000/19800	Clear
C - D	0030-0054	19:40:54	19:46:47	"	Clear; minor smoke obscuration from slash burn (frames 0043-0048)
E - F	0055-0076	19:52:51	19:57:59	"	Clear; minor smoke obscuration from slash burn (frames 0064-0065)



FLIGHT 90-021 1 November 1989 A/C 708 A-4 Configuration



FLIGHT 90-021 1 November 1989 A/C 708 A-4 Configuration SO-131 ONC G-18