FLIGHT SUMMARY REPORT

Flight #: 90-086
Date: 30 May 1990
Sensor Package: Wild-Heerbrug RC-10
Area(s) Covered: Southern California

Investigator(s): Yoha, Dept. of Conservation
Flight Request: 90R255
Aircraft #: 709
Julian Date: 150

SENSOR DATA

Accession #: 04026
Sensor ID #: 026
Sensor Type: RC-10
Focal Length: 12"
304.97 mm
Film Type: High Definition
Aerochrome IR
SO-131
Filtration: cc.10B
Spectral Band: 510-900 nm
f Stop: 4
Shutter Speed: 1/200
# of Frames: 365
% 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 descriptions of the camera systems flown onboard the ER-2s.

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. 90-086

Accession # 04026

Sensor # 026

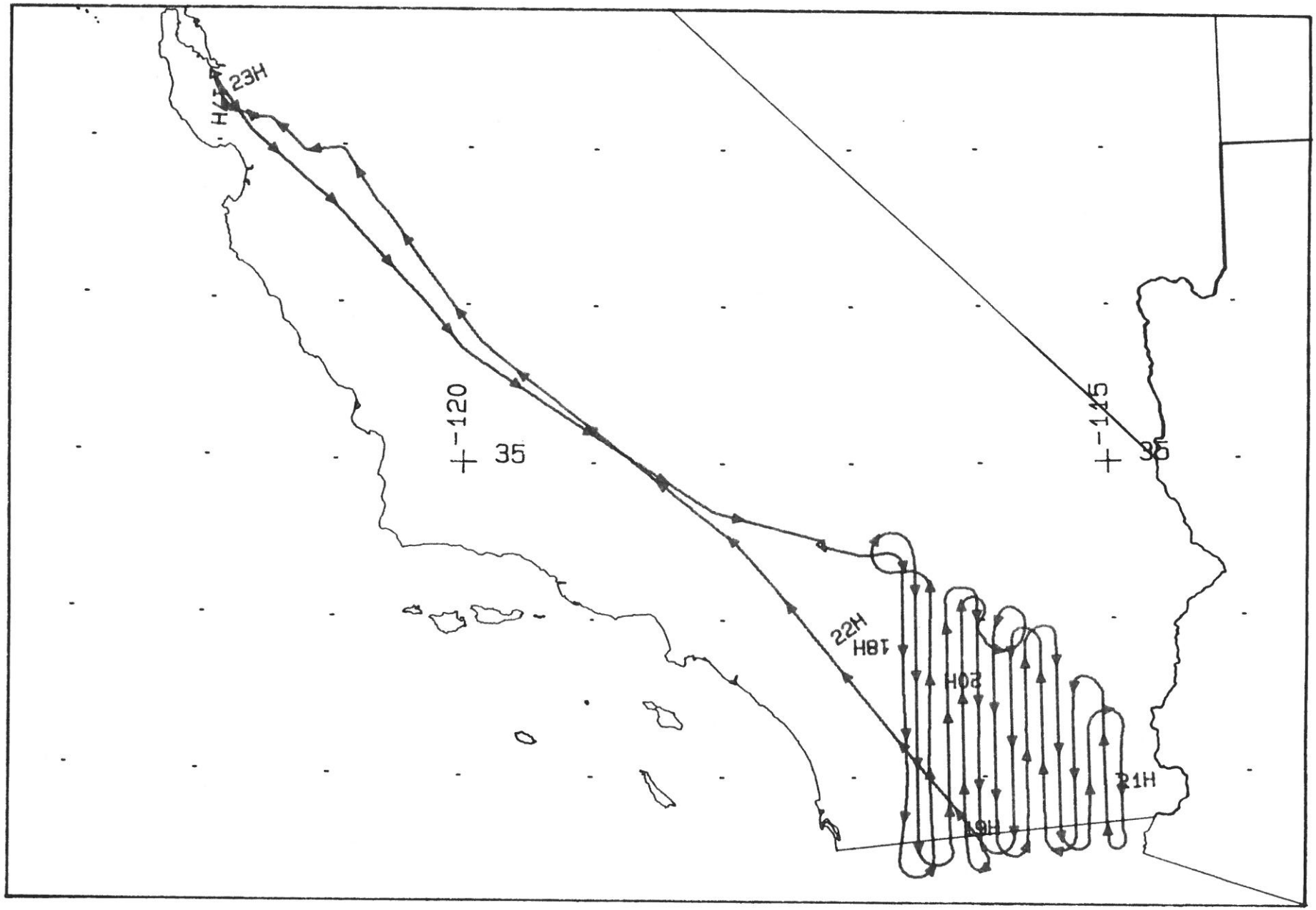
Check Points	Frame Numbers	Time (GMT-hr, min, sec) START	Time (GMT-hr, min, sec) END	Altitude, MSL feet/meters	Cloud Cover/Remarks
A - B	3154-3177	17:57:02	18:07:43	65000/19800	10-30% cumulus (frames 3175-3177)
C - D	3178-3208	18:17:22	18:30:52	"	Clear
E - F	3209-3245	18:40:20	18:56:14	"	Clear
G - H	3246-3275	19:00:17	19:13:12	"	Clear
I - J	3276-3306	19:16:23	19:29:50	"	Clear
K - L	3307-3335	19:34:11	19:46:42	"	Clear
____	3336	19:47:10	19:47:10	"	Clear; oblique frame in turn
M - N	3337-3365	19:58:01	20:10:02	"	Clear
N - O	3366-3371	20:10:29	20:12:47	"	Clear; oblique frames in turn
O - P	3372-3395	20:13:02	20:23:22	"	Clear

CAMERA FLIGHT LINE DATA
FLIGHT NO. 90-086

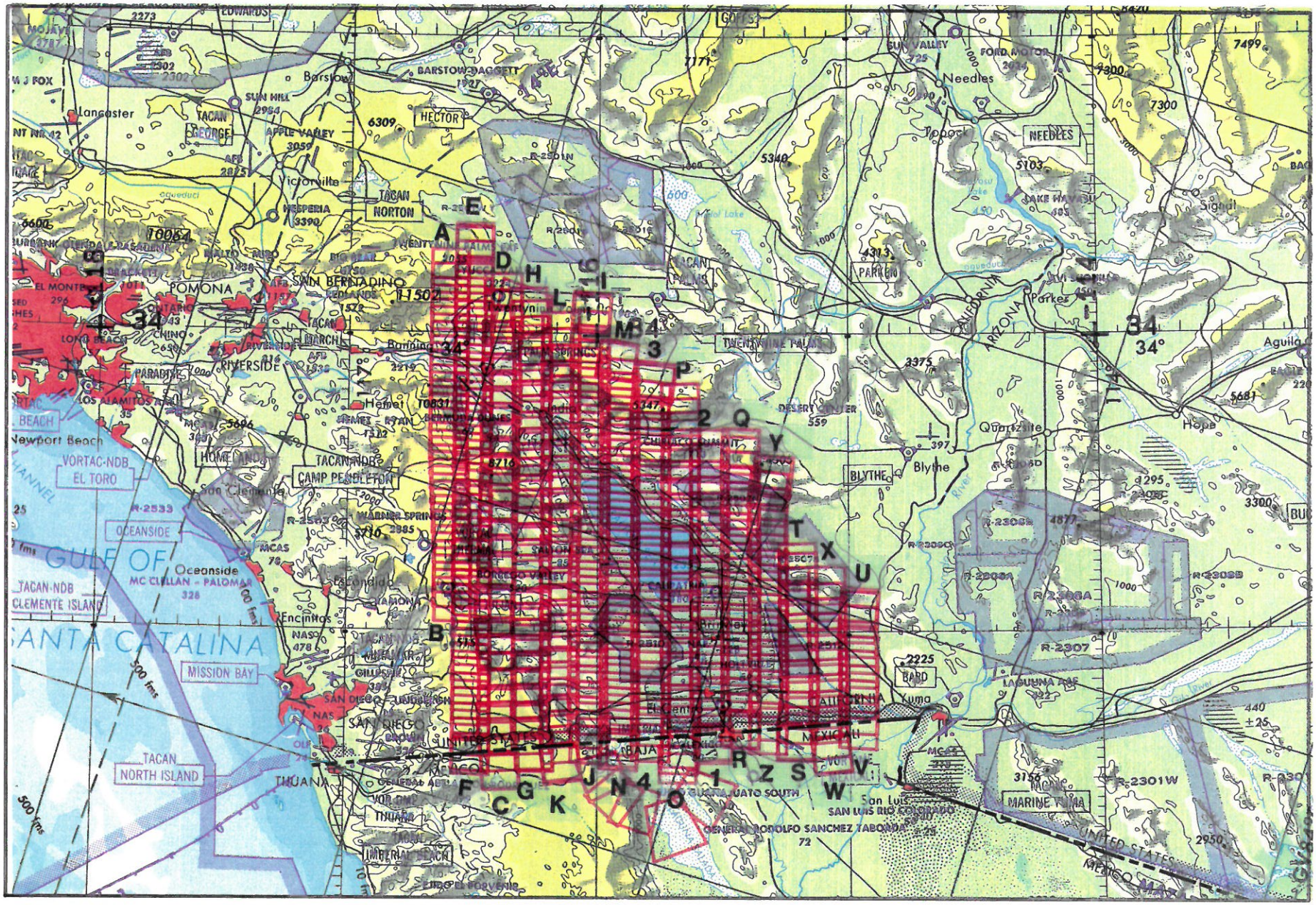
Accession # 04026

Sensor # 026

Check Points	Frame Numbers	Time (GMT-hr, min, sec)		Altitude, MSL feet/meters	Cloud Cover/Remarks
		START	END		
Q - R	3396-3416	20:28:40	20:37:12	65000/19800	Smoke obscuration -- ag burn (frames 3406-3408)
S - T	3417-3430	20:40:36	20:45:59	"	Clear
U - V	3431-3440	20:51:16	20:55:00	"	Clear
W - X	3441-3453	20:57:41	21:02:49	"	Clear
Y - Z	3454-3472	21:08:23	21:16:15	"	Clear
1 - 2	3473-3493	21:19:44	21:28:32	"	Clear
3 - 4	3494-3518	21:33:00	21:43:38	"	Clear



FLIGHT 90-086 30 May 1990 A/C 709 RC-10 / Dual HR 732 / TMS Southern California



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