FLIGHT SUMMARY REPORT

Flight #: 91-022

Date: 06 November 1990

Sensor Package: A-4 Configuration
Wild-Heerbrug RC-10

Area(s) Covered: Western Santa Barbara County, California

Investigator(s): Functional Check Flight

Aircraft #: 706

Flight Request: 91X001

Julian Date: 310

SENSOR DATA

Accession #:	04158	04159	04160
Sensor ID #:	039	034	076
Sensor Type:	HR-732	RC-10	RC-10
Focal Length:	24" 609.6 mm	12" 304.66 mm	12" 304.89 mm
Film Type:	Aerial Color SO-242	Aerial Color SO-242	High Definition Aerochrome IR SO-131
Filtration:	None	None	cc.10B
Spectral Band:	400-700 nm	400-700 nm	510-900 nm
f Stop:	8	4	4
Shutter Speed:	1/75	1/200	1/100
# of Frames:	104	58	64
% Overlap:	60	60	60
Quality:	Excellent	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. 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. 91-022

Accession # 04158

Sensor # 039

Check Points	Frame Numbers	Time (GMT-hr, min, sec)		Altitude, MSL feet/meters	Cloud Cover/Remarks
		START	END		
A - B	0001-0008	19:34:30	19:36:45	65000/19800	Clear
C - D	0025-0031	19:40:53	19:41:53	"	Clear
E - F	0032-0057	19:46:05	19:52:12	"	Clear
G - H	0058-0082	19:56:21	20:01:57	"	Clear
I - J	0083-0106	20:07:31	20:13:06	"	Clear
K - L	0107-0113	20:16:38	20:18:05	"	Clear
M - N	0126-0132	20:21:15	20:22:32	"	Clear

CAMERA FLIGHT LINE DATA
FLIGHT NO. 91-022

Accession # 04159

Sensor # 034

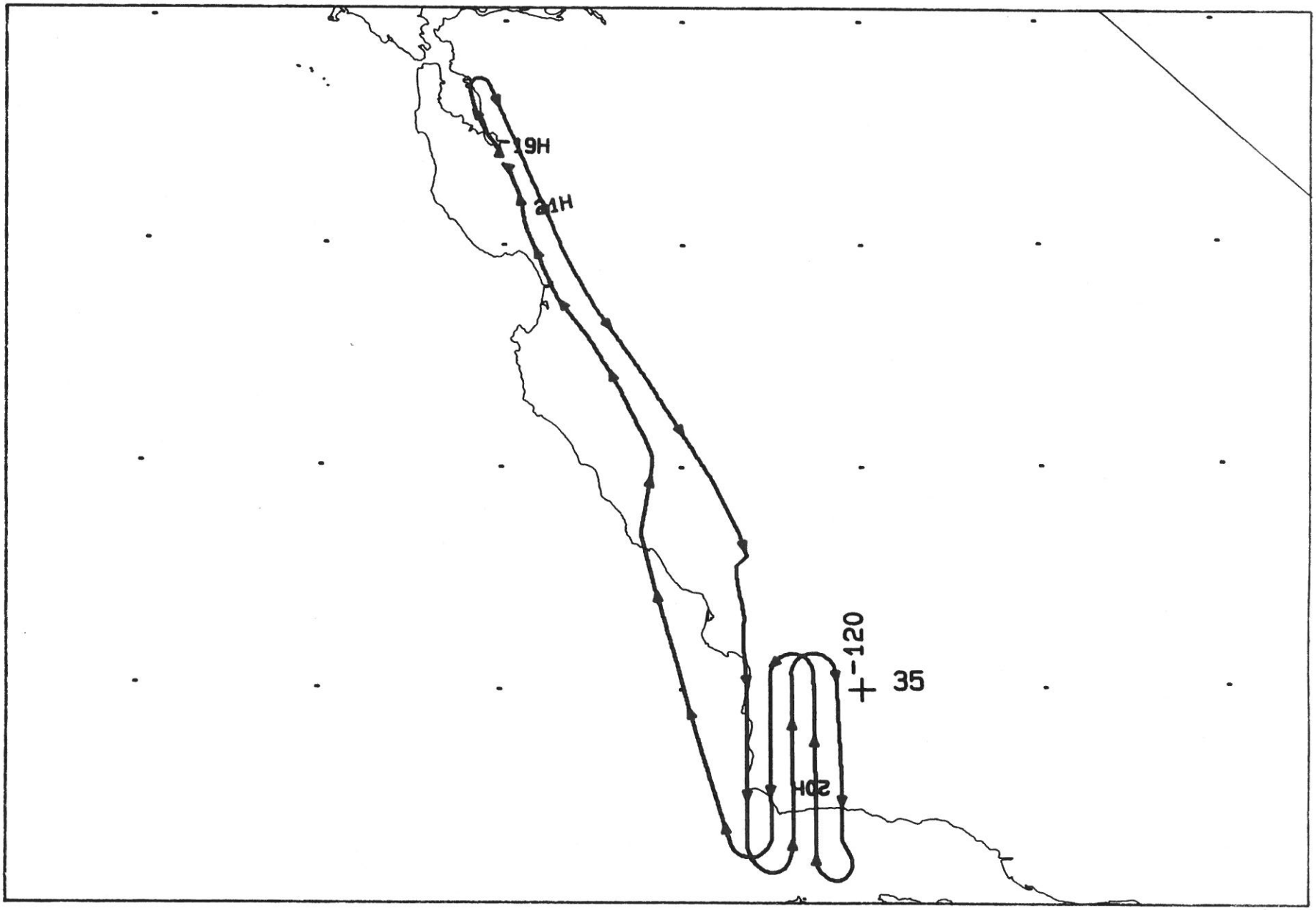
Check Points	Frame Numbers	Time (GMT-hr, min, sec)		Altitude, MSL feet/meters	Cloud Cover/Remarks
		START	END		
A - B	1483-1486	19:35:19	19:36:46	65000/19800	Clear
C - D	1496-1500	19:41:36	19:42:46	"	Clear
E - F	1501-1514	19:46:39	19:52:56	"	Clear
G - H	1515-1528	19:56:49	20:02:46	"	Clear
I - J	1529-1542	20:07:49	20:13:56	"	Clear
K - L	1543-1546	20:17:04	20:18:21	"	Clear
M - N	1554-1556	20:21:46	20:22:29	"	Clear

CAMERA FLIGHT LINE DATA
FLIGHT NO. 91-022

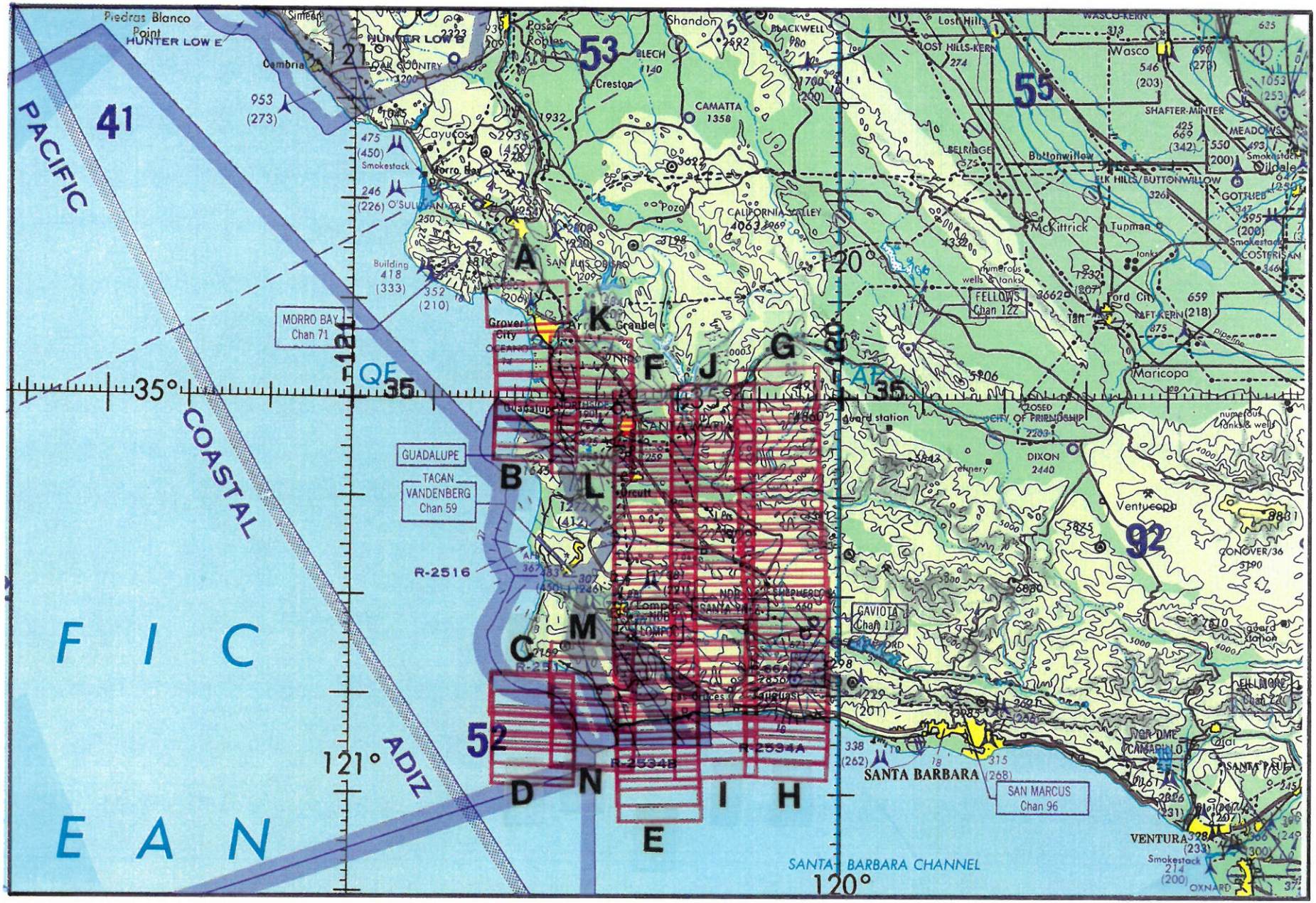
Accession # 04160

Sensor # 076

Check Points	Frame Numbers	Time (GMT-hr, min, sec)		Altitude, MSL feet/meters	Cloud Cover/Remarks
		START	END		
A - B	4801-4805	19:35:03	19:36:46	65000/19800	Clear
C - D	4815-4818	19:41:28	19:42:24	"	Clear
E - F	4819-4834	19:46:34	19:52:46	"	Clear
G - H	4835-4849	19:56:49	20:02:35	"	Clear
I - J	4850-4864	20:07:58	20:13:39	"	Clear
K - L	4865-4869	20:17:05	20:18:33	"	Clear
M - N	4877-4880	20:22:14	20:23:10	"	Clear



FLIGHT 91-022 6 November 1990 A/C 706 HR-732 / Dual RC-10



FLIGHT 91-022 6 November 1990 A/C 706 HR-732 / Dual RC-10 Accession # 04158 ONC G-18