

FLIGHT SUMMARY REPORT

Flight Number: 90-016 **Date:** 12 October 1989
Julian Date: 285
Aircraft #: 706

Sensor Package: Wild-Heerbrug RC-10
Large Area Collectors (LAC)
Purpose of Flight: 90E238
Zolensky, NASA-JSC; Gilmer, U.S. Fish & Wildlife
Area(s) Covered: Central Valley, California

SENSOR DATA

Accession #:	03963	-----
Sensor ID #:	023	100
Sensor Type:	RC-10	LAC
Focal Length:	6" 153.21 mm	-----
Film Type:	High Definition Aerochrome IR SO-131	-----
Filtration:	cc .10B + 2.2 AV	-----
Spectral Band:	510-900 nm	-----
f Stop:	4	-----
Shutter Speed:	1/80	-----
# of Frames:	180	-----
% Overlap:	60%	-----
Quality:	Excellent	-----
Remarks:	Periodic shutter malfunction; monoscopic coverage in some areas	Non-imaging Impact Sampler

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

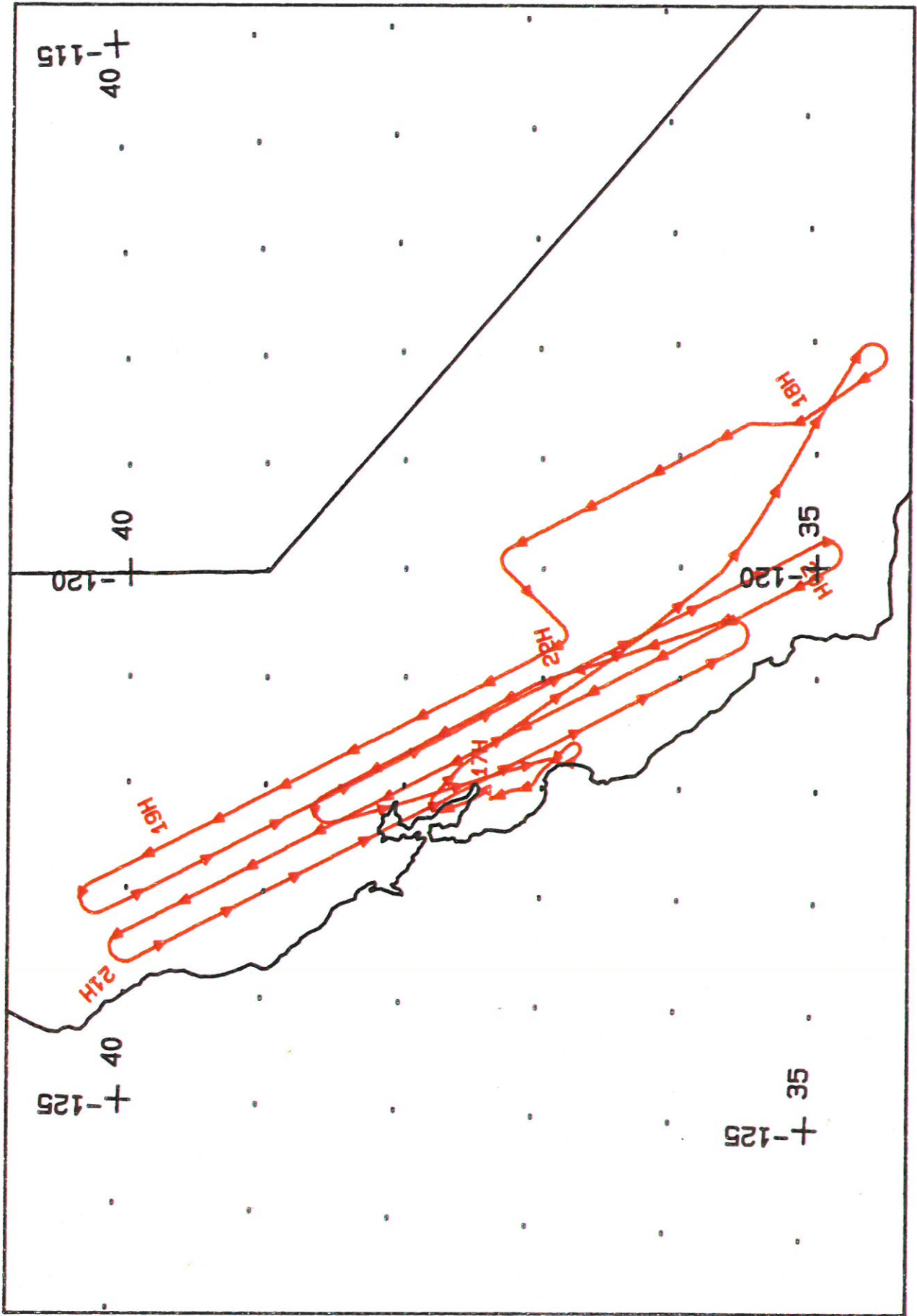
- * Iris II Panoramic camera
 - 4.5 x 34.7 inch film format
 - 24 inch focal length lens
 - 90 degree field of view provides area coverage of 2 x 21.4 nautical miles from 65,000 feet

CAMERA FLIGHT LINE DATA
 FLIGHT NO. 90-016

Accession No. 03963

Sensor #
 023

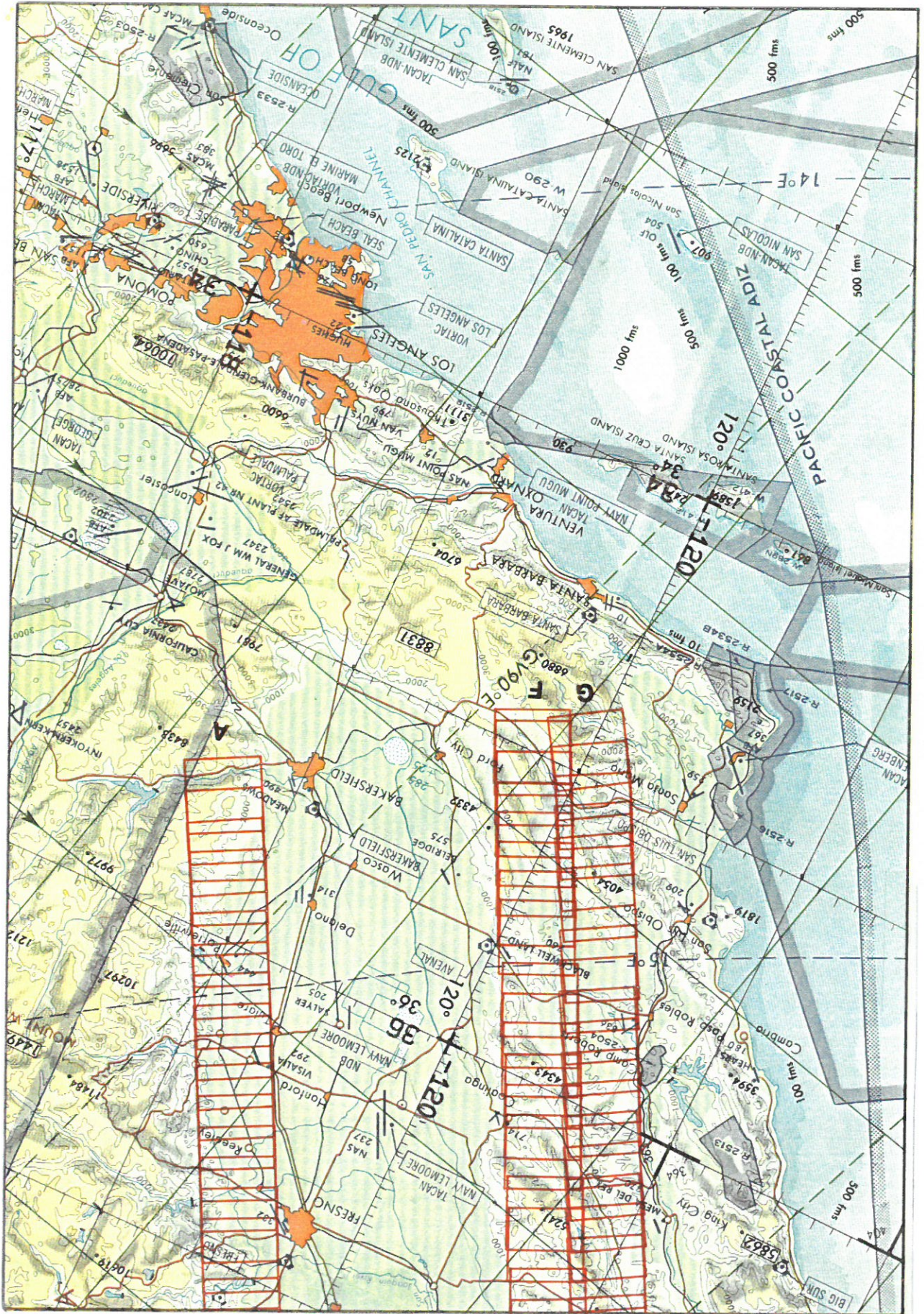
Check Points	Frame Numbers	Time (GMT-hr, min, sec)		Altitude, MSL feet/meters	Cloud Cover/Remarks
		START	END		
A - B	0824-0843	18:05:19	18:22:19	65000/19800	Clear; no image, shutter malfunction (frame 0840)
C - D	0844-0882	18:32:09	19:06:09	"	Clear; no image, shutter malfunction (frames 0857, 0867)
E - F	0883-0940	19:09:49	20:02:06	"	10-30% thin strato-cirrus (frames 0896, 0902-0907, 0910, 0922, 0925, 0932)
G - H	0941-0999	20:05:26	20:58:11	"	10% thin cirrus (frames 0973-0974); 10-60% cirrus (frames 0976-0996); no image, shutter malfunction (frames 0947, 0959, 0962, 0964-0966, 0969, 0975, 0986, 0988, 0998)
I - J	1000-1016	21:01:44	21:16:31	"	10-60% cirrus (frames 1002-1009, 1014-1016); no image, shutter malfunction (frames 1001, 1004, 1006, 1008, 1017, 1018, 1111, 1112)
K - L	1019-1032	22:07:10	22:17:56	"	10-40% cirrus (frames 1019-1022, 1026-1032); no image, shutter malfunction (frame 1029)

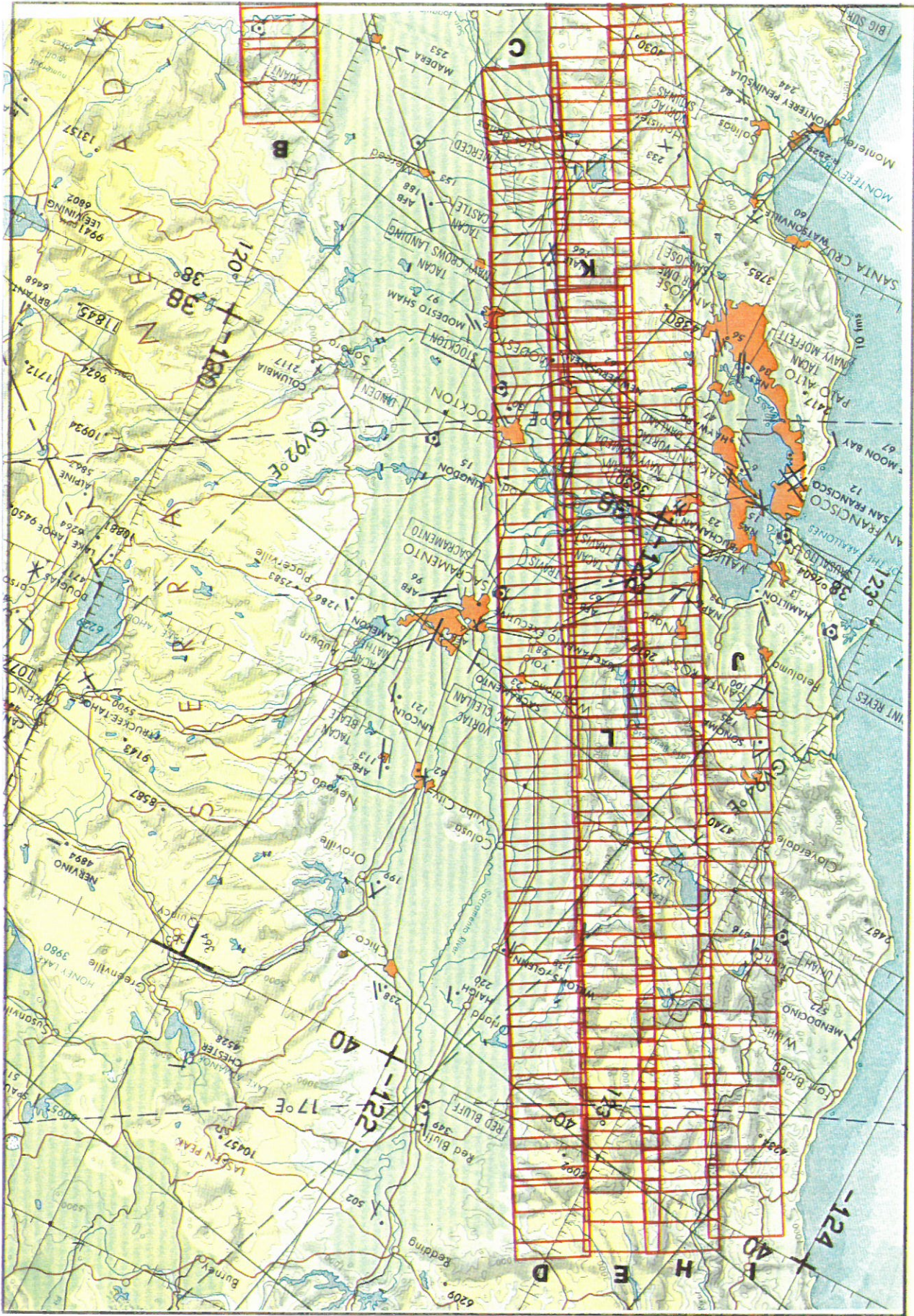


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