FLIGHT SUMMARY REPORT

Flight Number:	97-034
Calendar/Julian Date:	14 January 1997 •014
Sensor Package:	Dual Wild-Heerbrugg RC-10
Area(s) Covered:	Klamath National Forest

Investigator(s): De la Fuente, USDA Forest Service **Aircraft #:** 708

SENSOR DATA

Accession #:	05145	05146
Sensor ID #:	076	035
Sensor Type:	RC-10	RC-10
Focal Length:	12” 304.89 mm	6” 153.46 mm
Film Type:	Panatomic X Aerographic II EX2412	Panatomic X Aerographic II EX2412
Filtration:	Wratten 12	Wratten + 2.2 AV
Spectral Band:	510-700 nm	510-700 nm
f Stop:	5.6	8
Shutter Speed:	1/200	1/225
# of Frames:	82	47
% Overlap:	60	60
Quality:	Good	Excellent
Remarks:	Camera clock offset 1.6 minutes from navigation data	

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 a description of the digital multispectral sensor(s) and camera(s) used for data collection during this flight.

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-Heerbrugg 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).

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. 97-034

Accession # 05145

Sensor # 076

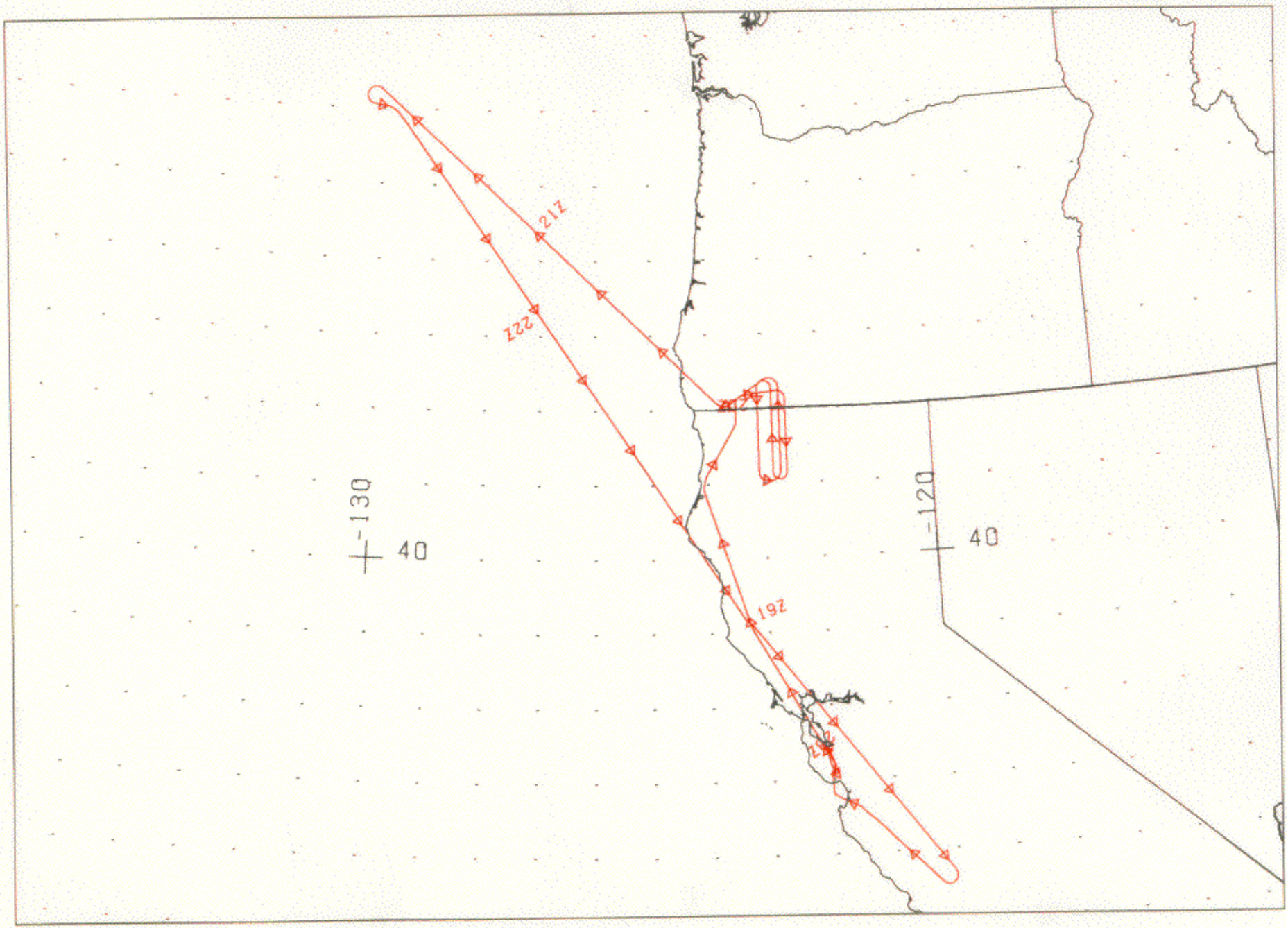
Check Points	Frame Numbers	Time (GMT-hr, min, sec) START	Time (GMT-hr, min, sec) END	Altitude, MSL feet/meters	Cloud Cover/Remarks
A - B	7325-7343	19:36:40	19:44:58	63247/19278	Minor cirrus (frame 7340); 30-60% cumulus (frames 7342-7343)
C - D	7344-7364	19:47:58	19:57:14	63395/19323	10-60% cumulus (frames 7344-7350)
E - F	7365-7385	20:00:34	20:09:51	63652/19401	20-90% cumulus (frames 7376-7385)
G - H	7386-7406	20:14:11	20:23:27	64195/19567	10-80% cumulus (frames 7386-7393); minor cirrus (frame 7397)

CAMERA FLIGHT LINE DATA
FLIGHT NO. 97-034

Accession # 05146

Sensor # 035

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	3345-3353	19:35:11	19:42:40	63267/19284	30% cumulus (frame 3353)
C - D	3354-3366	19:46:23	19:55:50	63338/19305	40-60% cumulus (frames 3354-3359)
E - F	3367-3379	19:59:00	20:08:27	63646/19399	Fire (frames 3367-3370); 20-80% cumulus (frames 3374-3379)
G - H	3380-3391	20:12:37	20:22:04	64208/19571	20-80% cumulus (frames 3380-3384)



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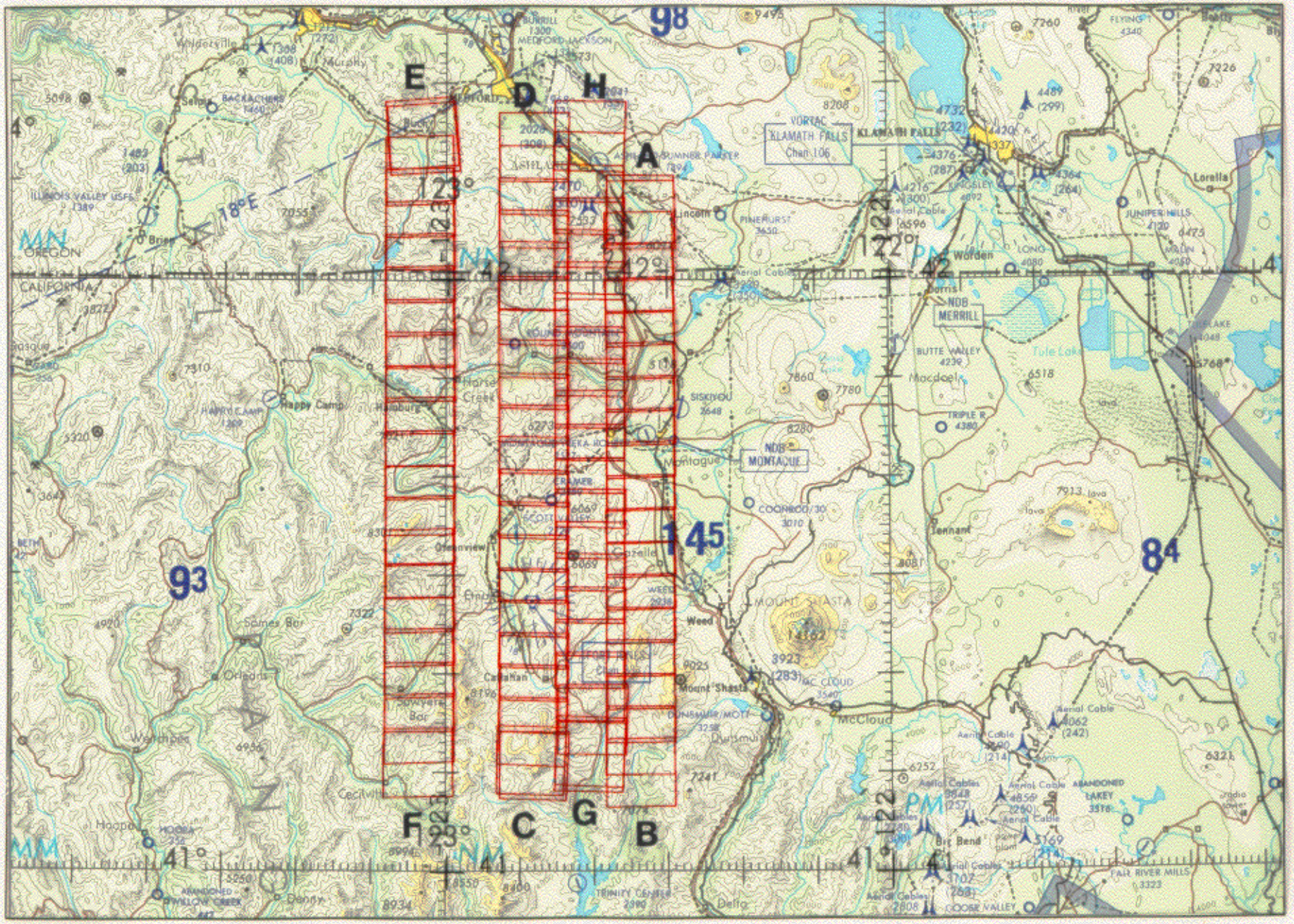

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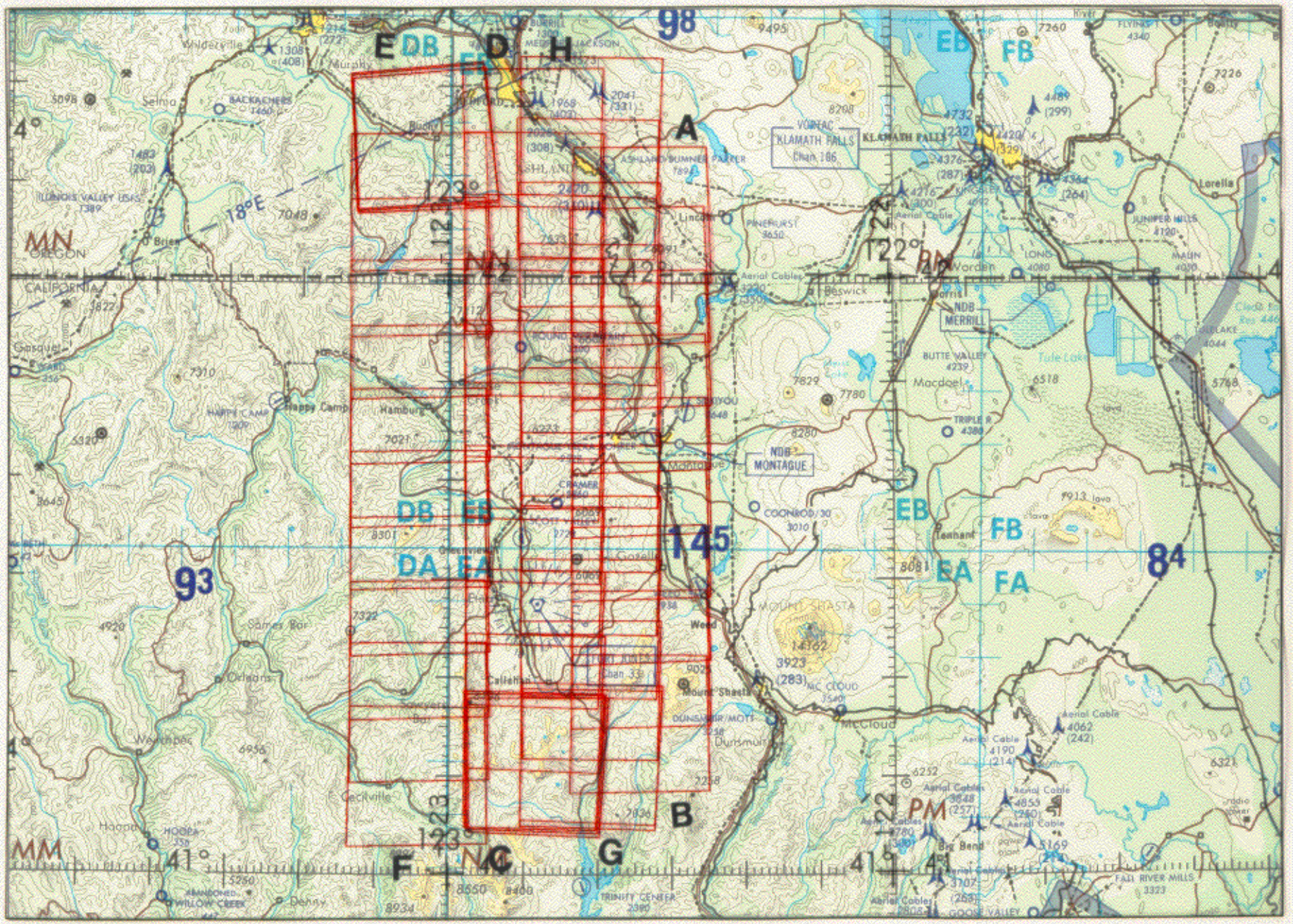

FLIGHT 97-034 14 JANUARY 1997 A/C 708 RC-10 (6") ONC F-16