

FLIGHT SUMMARY REPORT

Flight #: 92-137
Date: 01 August 1992
Sensor Package: A-4 Configuration
Area(s) Covered: Malheur National Forest, Oregon

Investigator(s): Ishikawa, USFS

Aircraft #: 709

Flight Request: 91R104

Julian Date: 214

SENSOR DATA

Accession #:	04431	04432
Sensor ID #:	039	034
Sensor Type:	HR-732	RC-10
Focal Length:	24" 609.6 mm	12" 304.66 mm
Film Type:	High Definition Aerochrome IR SO-131	High Definition Aerochrome IR SO-131
Filtration:	cc.20B	cc.10B
Spectral Band:	510-900 nm	510-900 nm
f Stop:	8	4
Shutter Speed:	1/75	1/200
# of Frames:	438	328
% Overlap:	60	60
Quality:	Excellent	Excellent
Remarks:	Both cameras pulsed by both intervalometers	

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 camera system(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-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. 92-137

Accession # 04431

Sensor # 039

Check Points	Frame Numbers	Time (GMT-hr, min, sec)		Altitude, MSL feet/meters	Cloud Cover/Remarks
		START	END		
A - B	0001-0050	18:34:55	18:43:10	65000/19800	Clear; smeared-exposure during transport (frame 0014)
C - D	0051-0103	18:47:34	18:56:16	"	Clear; smeared-exposure during transport (frame 0064)
E - F	0104-0173	19:00:28	19:11:45	"	Clear; smeared-exposure during transport (frame 0117)
G - H	0174-0227	19:17:35	19:26:22	"	Clear; smeared-exposure during transport (frame 0187)
I - J	0228-0279	19:29:20	19:37:54	"	Smeared-exposure during transport (frame 0241); 10% cumulus (frames 0255-0257)
K - L	0280-0290	19:47:29	19:49:44	"	10-20% cirrus (frames 0286-0290); emulsion flow (frame 0286)
M - O	0291-0354	19:58:10	20:09:28	"	Smeared-exposure during transport (0304); 10% cumulus (frames 0339-0344); 10% cirrus (frames 0345-0354)

CAMERA FLIGHT LINE DATA
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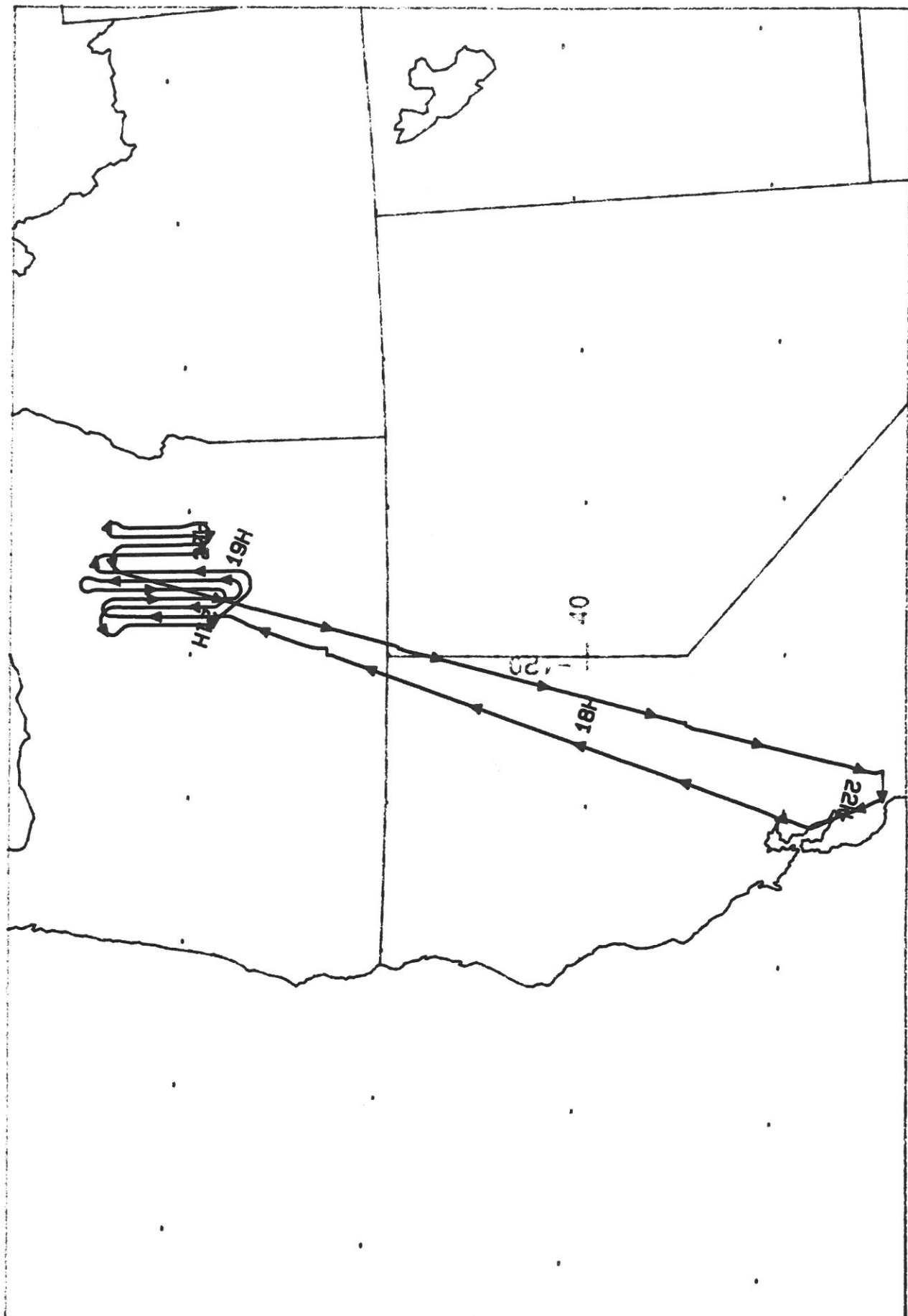
Check Points	Frame Numbers	Time (GMT-hr, min, sec)		Altitude, MSL feet/meters	Cloud Cover/Remarks
		START	END		
P - Q	0355-0393	20:12:43	20:19:49	65000/19800	Film splice and data gap (frames 0357-0358); thin cirrus and contrails (frames 0361-0368); smeared-exposure during transport (frame 0365)
R - S	0394-0432	20:23:03	20:29:34	"	10-40% cirrus (frames 0400-0420); smeared-exposure during transport (frame 0406)
T - U	0433-0438	20:34:59	20:36:06	"	10-30% cumulus and cirrus (frames 0434-0438)

**CAMERA FLIGHT LINE DATA
FLIGHT NO. 92-137**

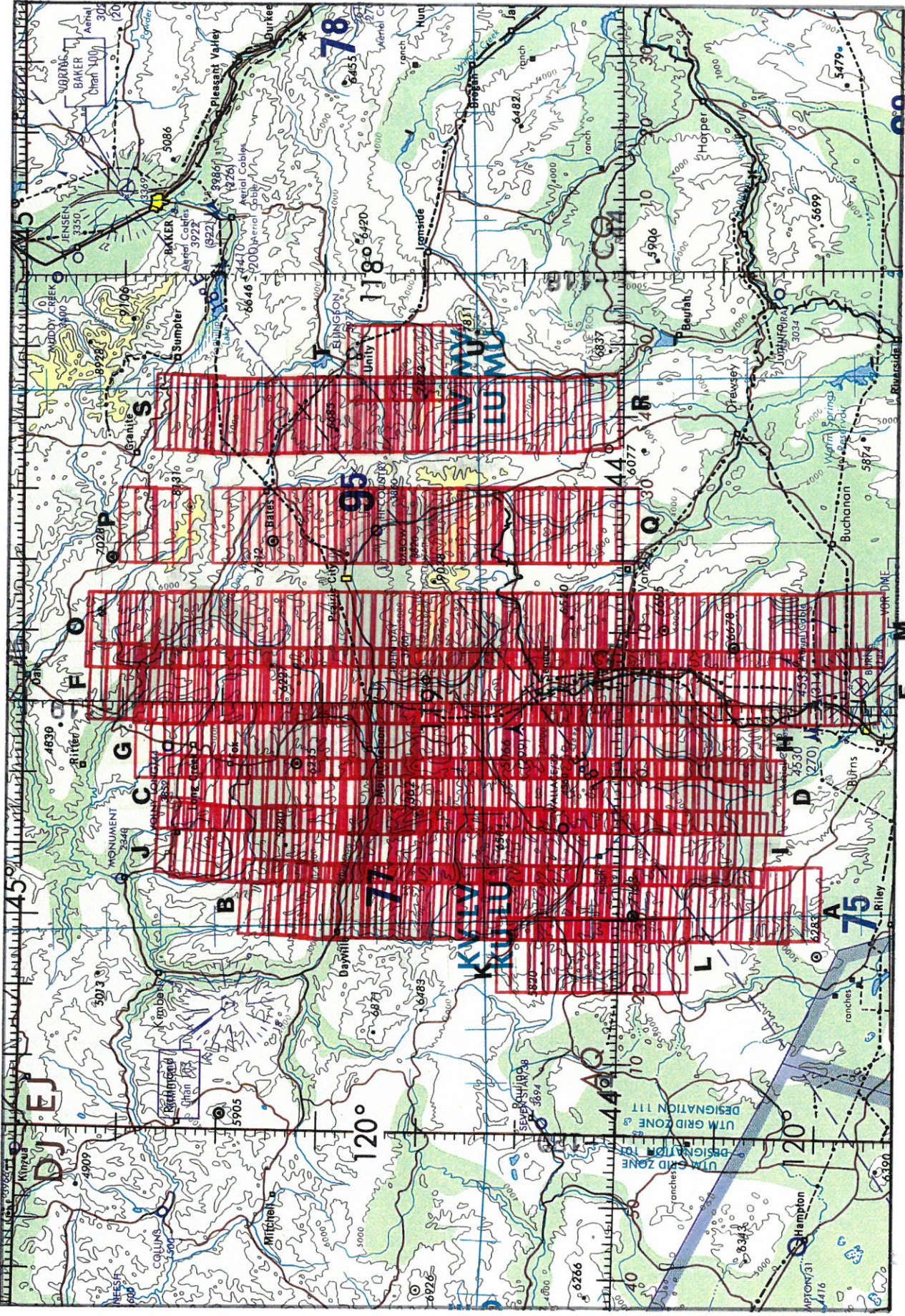
Accession # 04432

Sensor # 034

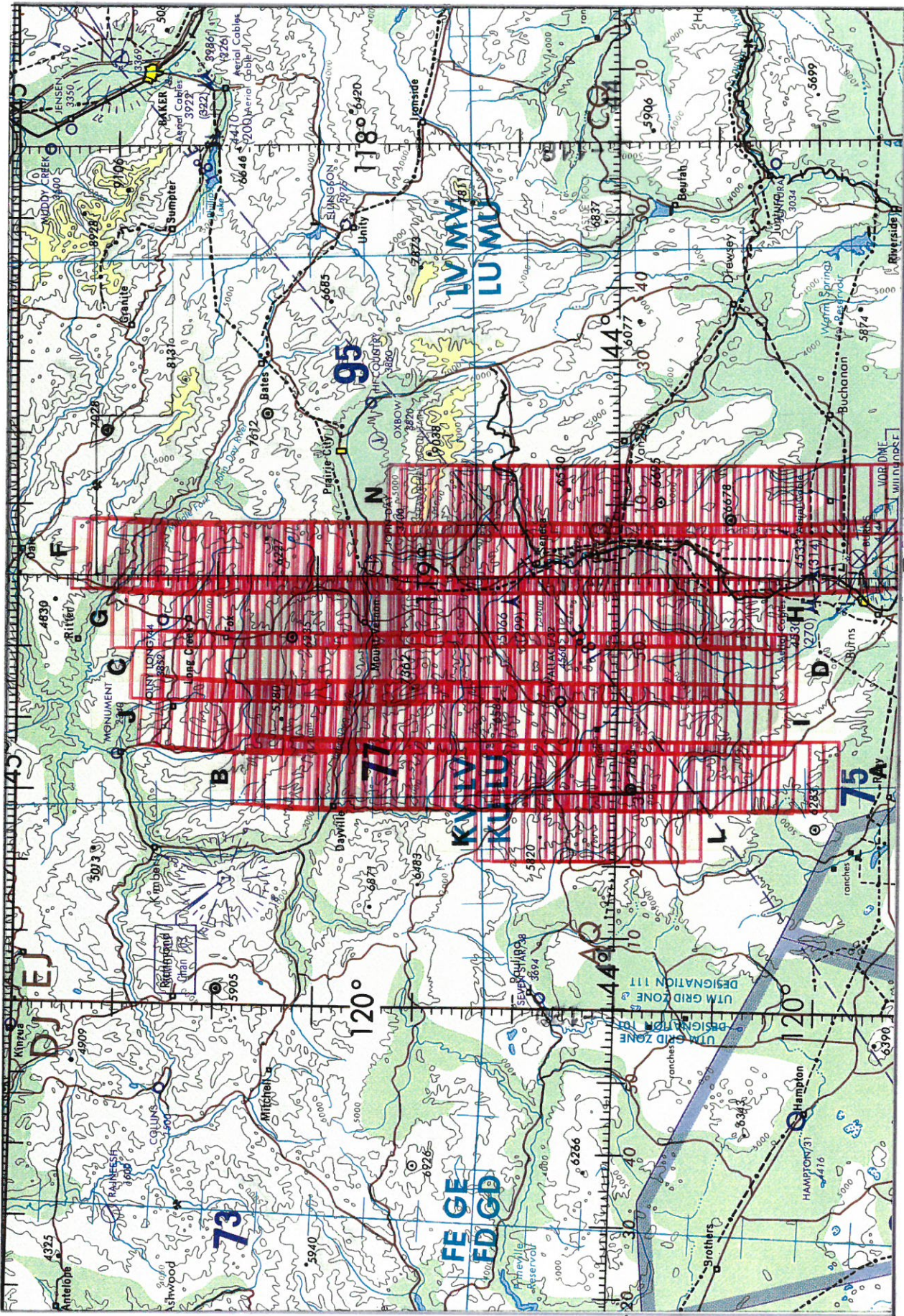
Check Points	Frame Numbers	Time (GMT-hr, min, sec)		Altitude, MSL feet/meters	Cloud Cover/Remarks
		START	END		
A - B	5878-5926	18:34:55	18:43:02	65000/19800	Clear
C - D	5927-5979	18:47:34	18:56:16	"	Clear
E - F	5980-6049	19:00:28	19:11:45	"	Clear
G - H	6050-6103	19:17:35	19:26:22	"	Clear
I - J	6104-6155	19:29:20	19:37:54	"	Clear
K - L	6156-6166	19:47:29	19:49:44	"	10-30% cirrus frames, frames 6161-6166
M - N	6167-6205	19:58:10	20:04:43	"	Clear



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FLIGHT 92-137 1 August 1992 A/C 709 HR-752 (90-131) Accession # 04431 ONC F-16



FLIGHT 92-137 1 AUGUST 1992 A/C 709 RC-10 (90-131) M Accession # 04432 ONC F-16