

FLIGHT SUMMARY REPORT

Flight #: 91-172
Date: 17 September 1991
Sensor Package: Wild-Heerbrug RC-10
Hycon HR-732
Area(s) Covered: Eastern Oregon

Investigator(s): Weber, USDA

Aircraft #: 706

Flight Request: 91R104

Julian Date: 260

SENSOR DATA

Accession #:	04306	04307	04308
Sensor ID #:	034	038	039
Sensor Type:	RC-10	HR-732	HR-732
Focal Length:	12" 304.66 mm	24" 609.6 mm	24" 609.6 mm
Film Type:	High Definition Aerochrome IR SO-131	High Definition Aerochrome IR SO-131	High Definition Aerochrome IR SO-131
Filtration:	cc.10B	cc.10B	cc.10B
Spectral Band:	510-900 nm	510-900 nm	510-900 nm
f Stop:	4	8	8
Shutter Speed:	1/125	1/75	1/75
# of Frames:	413	636	133
% 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. 91-172**

Accession # 04307

Sensor # 038

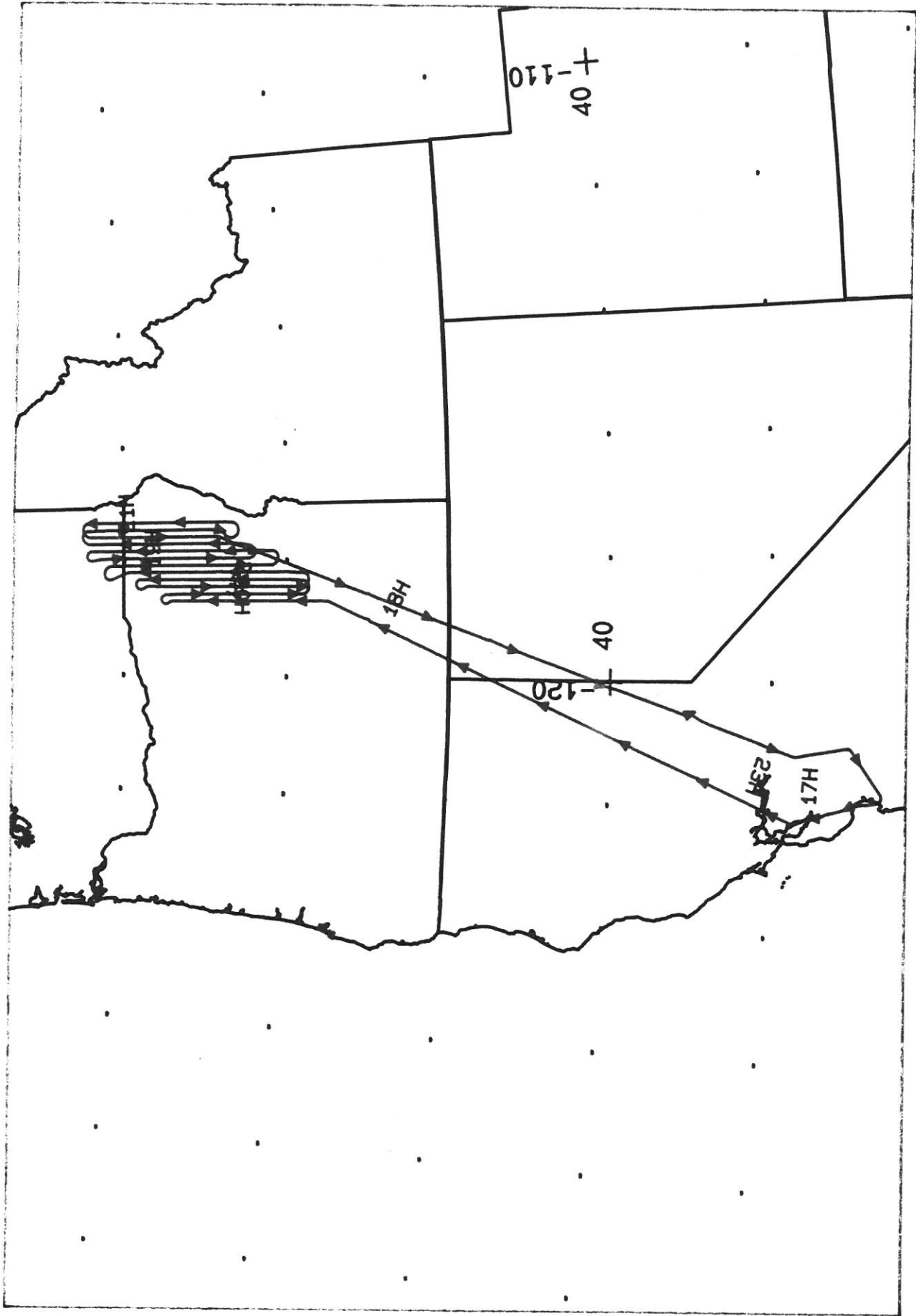
Check Points	Frame Numbers	Time (GMT-hr, min, sec)		Altitude, MSL feet/meters	Cloud Cover/Remarks
		START	END		
-----	0001	17:22:23	-----	65000/19800	Clear; Beale AFB, California
A - B	0002-0069	18:07:33	18:23:45	"	Clear
C - D	0070-0123	18:27:21	18:40:10	"	Clear
E - F	0124-0197	18:43:10	19:00:49	"	Clear
G - H	0198-0260	19:04:17	19:19:15	"	Clear
I - J	0261-0329	19:24:42	19:41:07	"	Clear
K - L	0330-0397	19:46:20	20:02:29	"	Clear
M - N	0398-0469	20:07:57	20:25:04	"	Clear
O - P	0470-0528	20:29:24	20:43:23	"	Clear
Q - R	0529-0601	20:46:12	21:03:34	"	Clear
S - T	0602-0636	21:06:39	21:14:51	"	Clear

**CAMERA FLIGHT LINE DATA
FLIGHT NO. 91-172**

Accession # 04308

Sensor # 039

Check Points	Frame Numbers	Time (GMT-hr, min, sec)		Altitude, MSL feet/meters	Cloud Cover/Remarks
		START	END		
U - V	0001-0014	21:16:50	21:19:58	65000/19800	Clear
W - X	0015-0078	21:25:09	21:40:20	"	Clear
Y - Z	0079-0133	21:43:30	21:56:31	"	Clear

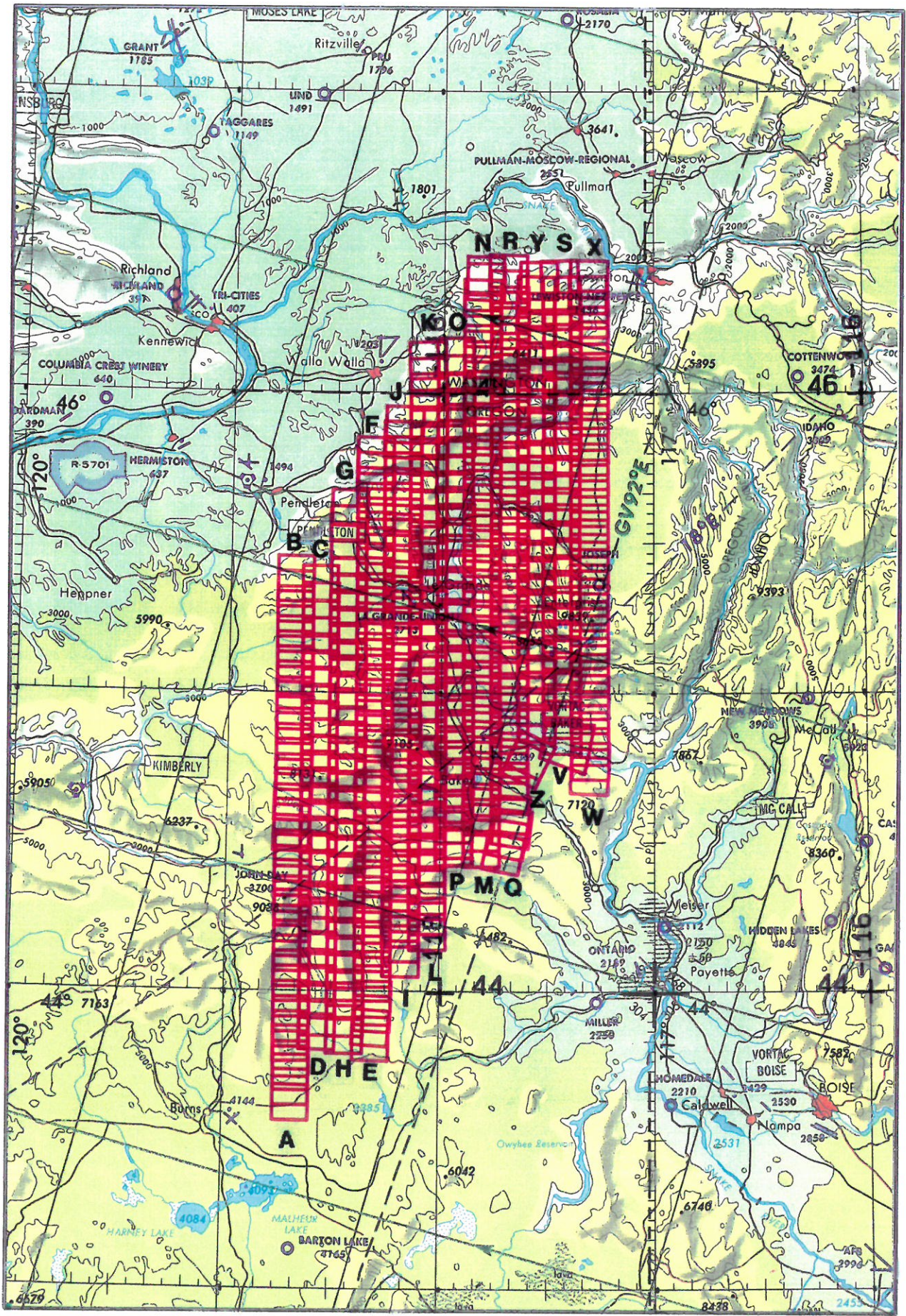


Dual HR-732 / RC-10

A/C 706

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FLIGHT 91-172



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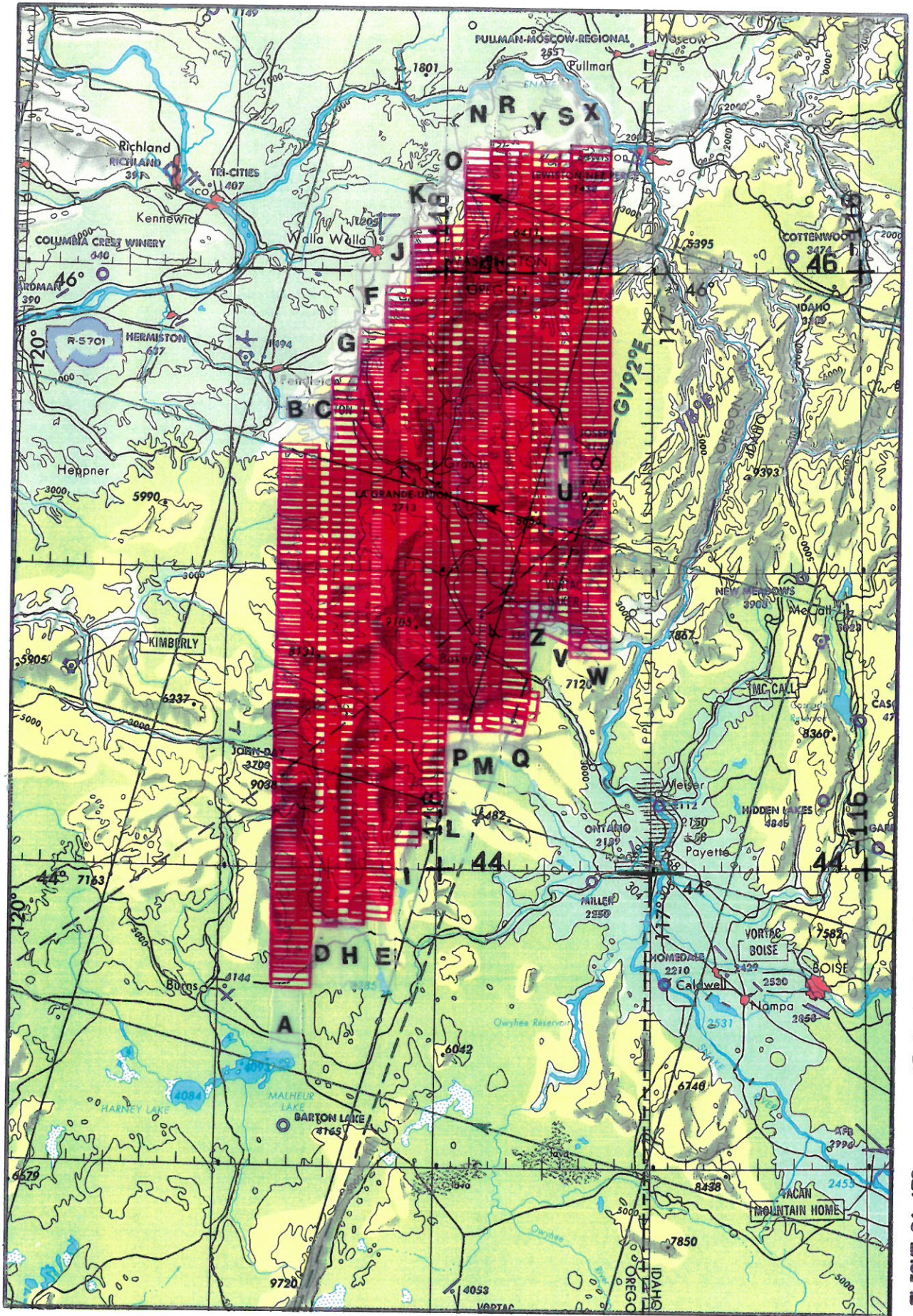
Accession # 04306

RC-10

A/C 706

17 September 1991

FLIGHT 91-172



FLIGHT 91-172 17 September 1991 A/C 706 Due1 HR-792 Accession # 04907 & 04908 JNC 43