

OVERSIZE

National Aeronautics and Space Administration

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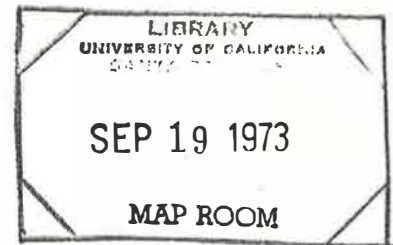
Earth Resources Aircraft Project

INTERIM
Flight Summary Report

Flight No. 72-103

Date 21 June 1972

FSR- 110



Airborne Science Office

Ames Research Center, Moffett Field, California

22 June 1972

NASA/ARC Earth Resources Aircraft Project

FLIGHT SUMMARY REPORT

Flight No: 72-103

Date: 21 June 1972

Aircraft No: 5

Julian Date: 173

Sensor Package: A-1 Configuration

Purpose of Flight: Disaster Assessment Flight,
San Joaquin Delta

SENSOR DATA

Accession No:	00466	00467
Sensor ID No:	006	009
Sensor Type:	HC 730V	HR 732
Lens Focal Length:	6"	24"
Film Type:	Aerochrome Infrared, 2443	Panatomic-X, 3400
Spectral Band:	510-900nm	510-700nm
f Stop:	11	8
Shutter Speed:	1/150	1/360
No. of Frames:	35	186

PREVIOUS COVERAGE

Flight No.	Date	Sensor Package
72-100	15 June 1972	Vinten System A RC-10 W/2443

FLIGHT SUMMARY

72-103

This was a special disaster assessment flight to obtain photography of the levee break and flooding on Andrus Island in the San Joaquin Delta. Extensive coverage of the entire Delta area was also obtained in the process.

The camera system employed for this flight was the A-1 configuration using only the vertical 6-inch focal length camera (HC-730V) with color infrared film, and the 24-inch focal length camera (HR-732) with Panatomic-X film. The HR-732 camera was run only in the vertical mode, although there are a few frames of rocker mode imagery (obliques) that occurred during switching of the camera system to standby.

The weather was clear except for a few patches of very thin cirrus and a number of closely spaced flight lines were flown at various aspects over the main target area (see Track Map). The final two flight lines were flown at an altitude of 45,000' (as opposed to the normal U-2 altitude of 65,000' for the rest of the flight) to obtain larger scale photography of the primary flood area (see Flight Line Data).

The imagery is of generally fair to good quality except for the following: (1) the 3400 film of the HR-732 camera is slightly overexposed, causing heavy density. (2) the HR-732 camera suffered sporadic but frequent vacuum failure, causing those frames to be "soft" in sharpness throughout the center and major portion of the frame (80% of all frames). (3) the frame counter on the HR-732 also malfunctioned and sporadically did not advance with each successive frame. As a result, there are various multiples of frames that indicate the same frame number. For documentation purposes these frames have been designated (not annotated on the film, however) as a sub-frame sequence as 76/1, 76/2, etc.

For convenience and reference purposes of users of this film, the following list tabulates the frames of the HR-732 camera that image the Andrus and Brannan Islands flooding area:

0041 - 0047
0068 - 0071
0079/3 - 0079/8
0089/2 - 0091/1
0098 - 0103

The following list tabulates those frames of the HR-732 camera that did not evidence vacuum failure and therefore have good sharpness and definition:

FLIGHT SUMMARY

72-103 (continued)

0072/1	0093	0108
0076/1	0094	0109
0080	0096/1	0111
0082	0097	0112/1
0084/1	0098	0113/1
0085	0099	0114/1
0087/1	0100	0115
0088	0102	0116
0089/1	0103	0117
0090/1	0104/1	0118
0091/1	0105	0076/25 oblique
0092	0107	0083/7 "
		0085 "

On 15 June 1972, just five days prior to the levee break, excellent quality photography (RC-10, 2443 film) was acquired of this area during a regularly scheduled Pre-ERTS Investigator Support (PEIS) flight. Advance copies of this film are also being distributed at this time to assist users of the disaster assessment flight imagery.

FLIGHT LINE DATA

FLIGHT NO. 72-103

HR-732 Camera

Flight Line No.	Check Points	Frame Numbers	Time (GMT-- hr, min, sec)		Altitude, MSL (feet)	Weather/ Cloud Cover	Remarks
			START	END			
	A - B	0005-0029	09 31 10	09 36 08	65,000	Clear	
	C - D	0030-0055	09 44 27	09 48 37	"	"	
	E - F	0056-0074/6	09 56 25	20 02 00	"	"	
	G - H	0074/7- 0076/25	20 07 51	20 13 34	"	"	Fr. 0076/25 right oblique
	I - J	0077-0083/4	20 20 18	20 23 50	"	"	West to east flight line
		0083/5- 0085	20 26 08	20 27 20	"	"	6 frames while in left turn in full rocker mode-vertical, left oblique, right oblique
	J - I	0086/1- 0094	20 30 15	20 33 21	"	"	East to west flight line
	K - C	0095-0105	20 47 19	20 50 38	45,000	"	
	L - M	0106-0118	20 55 11	20 57 18	"	"	

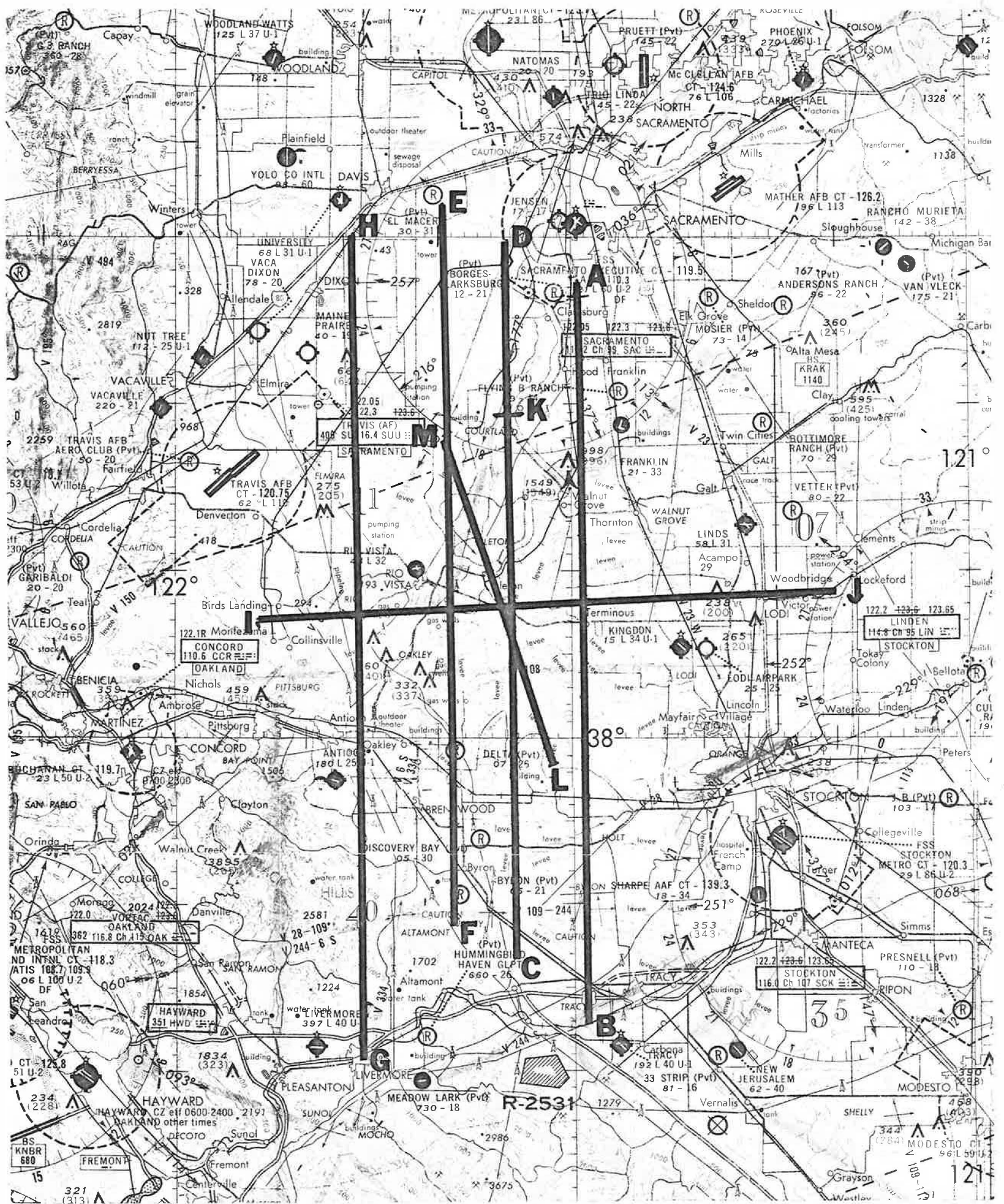
FLIGHT LINE DATA

FLIGHT NO. 72-103

HC-730 (V)

Camera

Flight Line No.	Check Points	Frame Numbers	Time (GMT—hr, min, sec)		Altitude, MSL (feet)	Weather/ Cloud Cover	Remarks
			START	END			
	A - B	0001-0005	19 31 27	19 35 10	65,000	Clear	
	C - D	0006-0010	19 43 41	19 47 48	"	"	
	E - F	0011-0015	19 56 23	20 00 29	"	"	
	G - H	0016-0021	20 08 09	20 13 18	"	"	
	I - J	0022-0025	20 19 55	20 23 00	"	"	
	J - I	0026-0028	20 29 47	20 32 51	"	"	
	K - C	0029-0032	20 46 30	20 48 35	45,000	"	Thin alto-cirrus fr. 0032
	L - M	0033-0035	20 53 55	20 55 58	"	"	



FLIGHT 72-103 21 June 1972
 Disaster Assessment
 San Joaquin Delta