

FLIGHT SUMMARY REPORT

Flight Number: 07-614
Calendar/Julian Date: 2 February 2007 (033)
Sensor Package: Cirrus Digital Camera System (DCS)
Video Imaging System (VIS)
Area(s) Covered: Pacific Ocean
Investigator(s): Functional Check Flight **Aircraft:** ER-2 #806

SENSOR DATA

Accession #:	05943	—
Sensor ID #:	150	118
Sensor Type:	DCS	VIS
Focal Length:	80mm	—
Film Type:	—	—
Filtration:	Wratten 12	—
Spectral Band:	510-990nm	—
f-Stop:	11	—
Shutter Speed:	1/500	—
# of Frames:	34	—
% Overlap:	10%	—
Quality:	Good	
Remarks:		

NASA Suborbital Science Program

The National Aeronautics and Space Administration maintains a variety of aircraft and sensor systems dedicated to the support of remote sensing research. Two Lockheed ER-2s (S-model U-2); two WB-57 high altitude aircraft; a DC-8; a Lockheed Orion P-3B; and the Altair unmanned aerial vehicle (supported by General Atomics) provide multi-level platforms for both NASA and investigator-owned sensors. Data are collected for the atmospheric, land, and ocean processes in support of the NASA Earth Science program, as well as for universities and other government agencies.

Additionally contracted aircraft from Sky Research Inc., Department of Energy, and Twin Otter International provide remote sensing platforms for the program.

The NASA aircraft, located at Dryden Flight Research Center and Johnson Space Center, are used as test-beds for advanced sensor design and satellite simulation, as well as to support scientific and operational data collection campaigns. Numerous sensor systems are in use and under development by NASA, including multispectral imaging devices, a SAR system, and a suite of large-format metric cameras. All instruments are spectrally, spatially, and radiometrically calibrated on a routine basis. The aircraft themselves are equipped with navigation systems that continuously record GPS location and platform attitude data.

Cirrus Digital Camera System (DCS)

Cirrus Digital Systems provides the digital camera. It consists of a Hasselblad camera body with a Kodak camera back and CCD array. It can be configured to acquire either false color infrared or natural color imagery.

Lens	Array Size	Array Width	Field of View (FOV)	Ground Coverage	Nominal Resolution
50mm	4072 x 4072 (pixels)	36.72mm	40.3°	7.9nm	3.5m
80mm	4072 x 4072 (pixels)	36.72mm	25.9°	4.9nm	2.2m

Note: Spatial parameters are from a 65,000 ft altitude. Nominal resolution references the smallest target that can be imaged.

Airborne Sensor Facility

The Airborne Sensor Facility at NASA Ames Research Center web site:

<http://asapdata.arc.nasa.gov/>

Additional information regarding flight documentation to include archive searches may be obtained from the following:

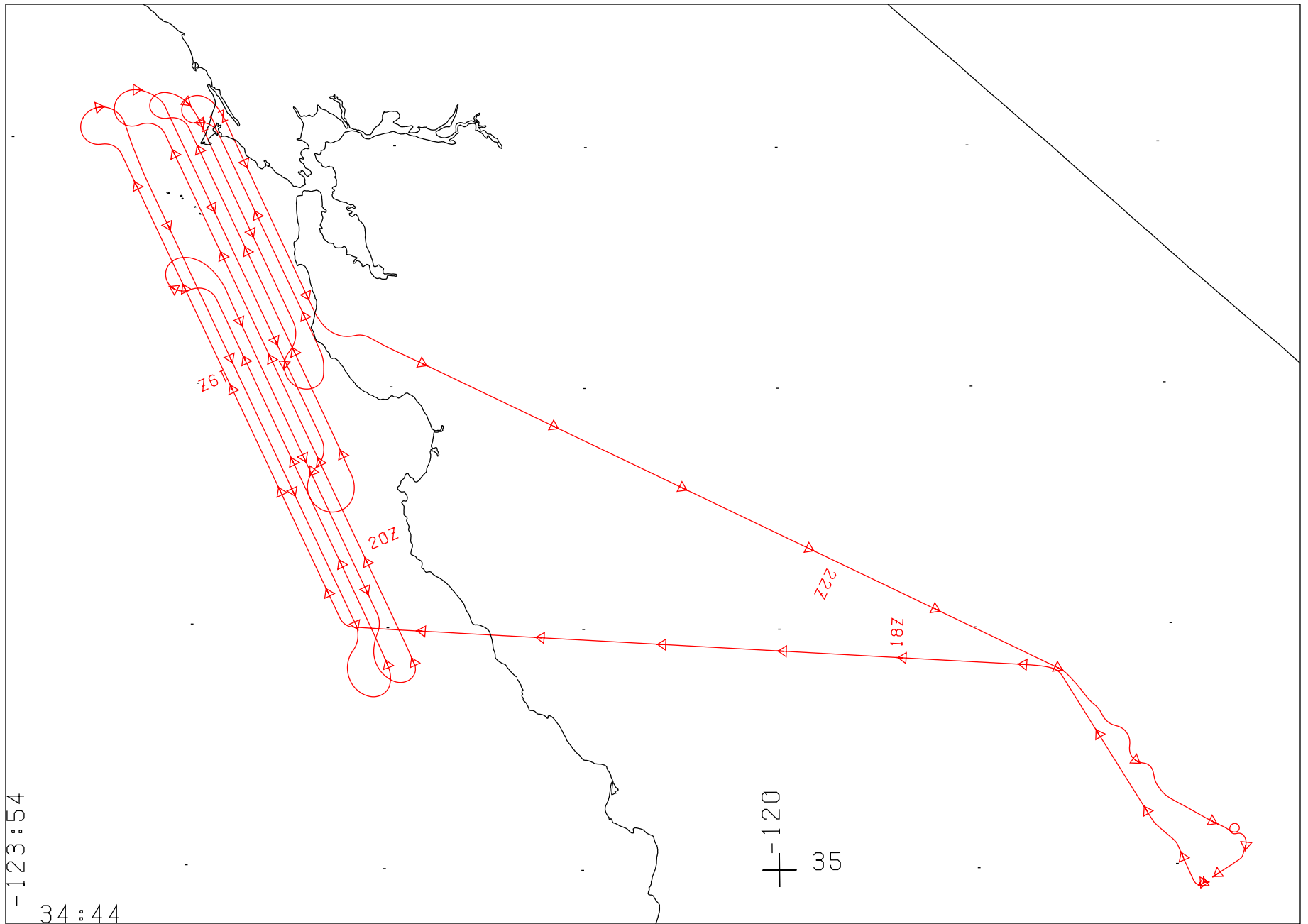
Airborne Sensor Facility
MS 240-6
NASA Ames Research Center
Moffett Field, CA 94035
Telephone: (650)604-6252 (FAX 4987)

CAMERA FLIGHT LINE DATA
FLIGHT NO. 07-614

Accession # 05943

Sensor # 150

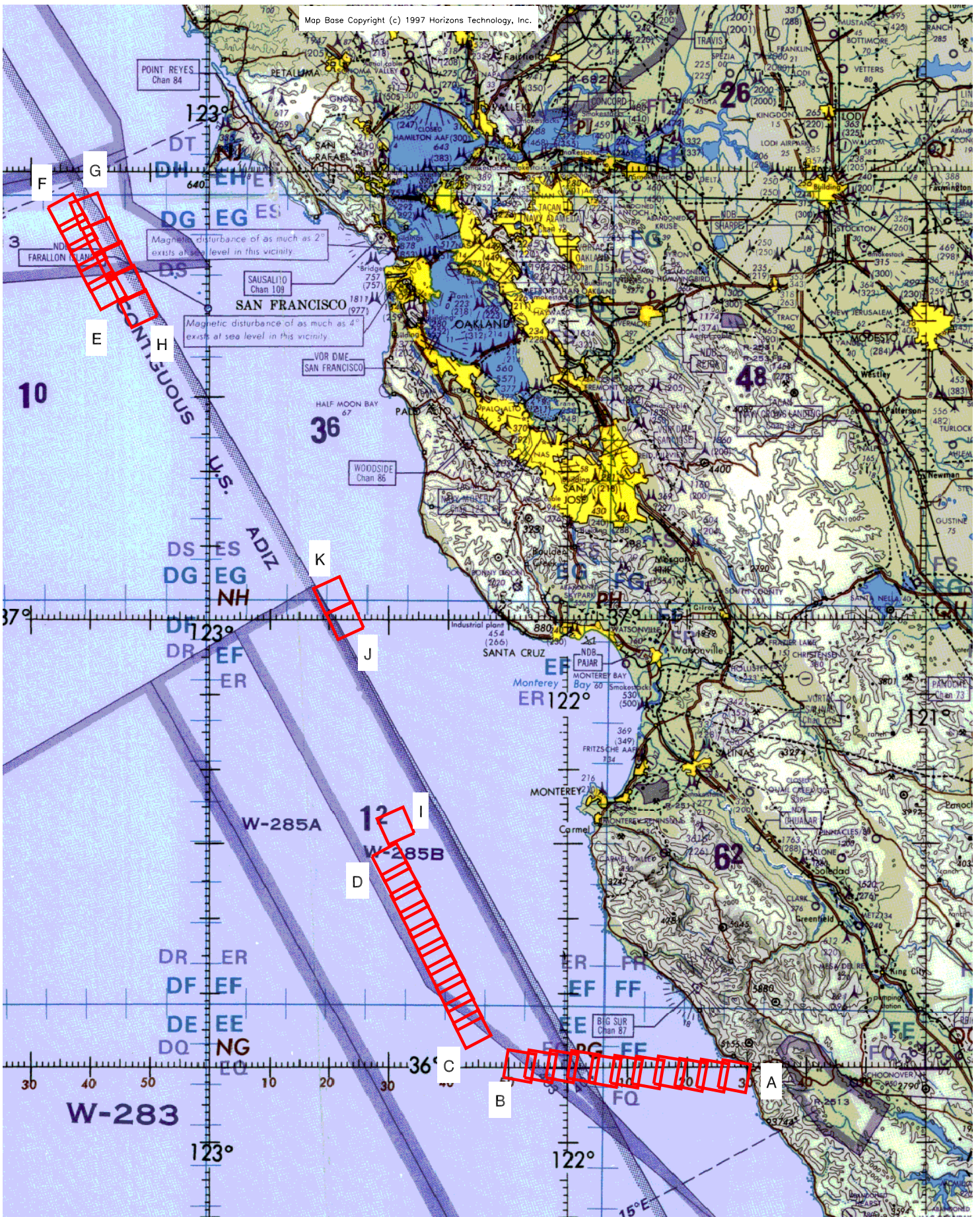
Check Points	Frame Numbers	Time (GMT-hr, min, sec)		Altitude, MSL feet/meters	Flight Direction / Heading
		START	END		
A - B	8221-8231	18:17:34	18:22:34	50100/15280	west; 279°
C - D	8232-8241	18:24:13	18:28:43	50100/15280	northwest; 332°
E - F	8242-8246	18:43:55	18:45:55	50300/15340	northwest; 332°
G - H	8247-8251	18:52:25	18:54:26	50300/15340	southeast; 155°
I	8252	19:04:58	19:04:58	50300/15340	southeast; 155°
J - K	8253-8254	19:41:33	19:42:03	50200/15310	southeast; 155°



-123:54
34:44

+ -120
35

FLIGHT 07-614 2 FEBRUARY 2007 A/C 806 DCS
 LAMBERT CONFORMAL PROJECTION: SP1 = 34.4 SP2 = 37.7 CM = -120.6 ROTATED BY 0.0
 17:30:00 TO 22:30:00 UT SCALE 1:2.47E+06 TIME TICK EVERY 5.00 MINUTES



Magnetic disturbance of as much as 2° exists above sea level in this vicinity.

Magnetic disturbance of as much as 4° exists at sea level in this vicinity.