

~~SECRET~~



CORONA
FLIGHT 1

1037-

1037-1

Declassified and Released by the N R O

In Accordance with E. O. 12958

on NOV 26 1997

~~SECRET~~

12 PAGES
(NOT INCLUDING PEST)

CORONA J FLIGHT DATA BOOK

SYSTEM NO. J-38

VEHICLE NO. 1632

MISSION NO. 1837-1

CAMERA NOS. 198/199

DATE 11-12-66

SYSTEM NO. J-38
VEHICLE NO. 1632
MISSION NO. 1037-1
CAMERA NOS. 198/199

TABLE OF CONTENTS

PAGE NO.

GENERAL FLIGHT DATA	3
LENS SETTINGS AND FILM TYPES	4
LENS DATA SUMMARY MASTER CAMERA	5
LENS DATA SUMMARY MASTER CAMERA HORIZON OPTICS	6
LENS DATA SUMMARY SLAVE CAMERA	7
LENS DATA SUMMARY SLAVE CAMERA HORIZON OPTICS	8
PANORAMIC CAMERA FORMAT CALIBRATION DIMENSIONS	9
LENS DATA SUMMARY STELLAR-INDEX -1	10
LENS DATA SUMMARY STELLAR-INDEX -2	11
CYCLE PERIOD DATA	12
PERFORMANCE ESTIMATE	13- UP

PAGE 2

SECRET

SYSTEM NO. J-38
VEHICLE NO. 1632
MISSION NO. 1837-1
CAMERA NOS. 198/199

GENERAL FLIGHT DATA

MASTER CAMERA SERIAL NO. 198

SLAVE CAMERA SERIAL NO. 199

S/I -1 SERIAL NO. D101/128/124

S/I -2 SERIAL NO. D106/136/134

LAUNCH DATE 11-08-66

LAUNCH TIME 19-57-00 GMT

REACTIVATION DATE

REACTIVATION ORBIT NO.

ORBITAL PARAMETERS (REV. 32)

PERIOD 89.378 MIN.

ECCENTRICITY 8.81112

PERIGEE 91.785 NM

PERIGEE LAT. 14.534 DEG. N

APOGEE 171.388 NM

INCL. ANGLE 100.874 DEG.

RECOVERY ORBIT NO. 66

RECOVERY DATE 11-12-66

SYSTEM NO. J-38
VEHICLE NO. 1632
MISSION NO. 1837-1
CAMERA NOS. 198/199

FLIGHT LENS SETTINGS AND FILM TYPES

LENS SETTINGS

PANORAMIC CAMERA SETTINGS		CAMERA NO. 198	CAMERA NO. 199
PANORAMIC OPTICS SLIT WIDTH		.225 IN	.175
PANORAMIC OPTICS FILTER TYPE		WRATTEN 23A	WRATTEN 21
HORIZON OPTICS EXP. TIME		1/100 SEC.	1/100 SEC.
HORIZON OPTICS APERTURE		F6.3 SUPPLY	F8.0 SUPPLY
HORIZON OPTICS APERTURE		F8.0 TAKE-UP	F6.3 TAKE-UP
HORIZON OPTICS FILTER TYPE		WRATTEN 25	WRATTEN 25

STELLAR INDEX CAMERA SETTINGS

	D181/128/124		D186/136/134	
	STELLAR	INDEX	STELLAR	INDEX
EXPOSURE TIME	1.0 SEC	1/500 SEC	2.0 SEC	1/500 SEC
APERTURE SETTING	F1.8	F4.5	F1.8	F4.5
FILTER TYPE	NONE	WRATTEN 21	NONE	WRATTEN 21

RATIO ONE STELLAR/INDEX FRAME PER 7 MASTER CAMERA FRAMES.

FILM

PANORAMIC CAMERAS	CAMERA NO. 198	CAMERA NO. 199
TYPE	7J-48	7J-48
LENGTH	16000 FT.	16000 FT.
SPLICES	3	4
EMUL. DATA	264-5-9-6	264-5-9-6
LG. BETWEEN SPLICES	2888-5478-5935-2595C	3289-5911-5383-1117-8388C

STELLAR/INDEX CAMERAS

	D181/128/124		D186/136/134	
	STELLAR	INDEX	STELLAR	INDEX
TYPE	3J-34	7J-33	3J-34	7J-33
EMUL. DATA	151-48-4-6	116-8-5-6	151-48-4-6	116-8-5-6

SYSTEM NO. J-38
VEHICLE NO. 1632
MISSION NO. 1837-1
CAMERA NOS. 198/199

LENS DATA SUMMARY MASTER CAMERA NO. 198

LENS SERIAL NO. 2112435
EQUIVALENT OPERATIONAL FOCAL LENGTH 689.628 MM

RESOLUTION

STATIC		LINES/MM	FILM TYPE	TARGET CONTRAST
BENCH TEST		234	3484	HIGH
		138	3484	LOW
DYNAMIC	BOSTON	184	3484	HIGH
		121	3484	LOW
	AP	-8	3484	HIGH
		118	3484	LOW

NOTE BOSTON RESOLUTION OF 184 LINES/MM REPORTED IN [REDACTED]

DISTORTION - POSITIVE (PINCUSHION)

ANGLE OFF AXIS-DEG.	3	2	1	0	359	358	357
MILLIMETERS	0.002	0.000	0.000	0.000	0.000	0.001	0.002

SYSTEM NO. J-38
 VEHICLE NO. 1632
 MISSION NO. 1837-1
 CAMERA NOS. 198/199

LENS DATA SUMMARY (HORIZON CAMERAS FOR MASTER CAMERA NO. 198)

	TAKE-UP	SUPPLY
LENS SERIAL NO.	12834	12855
OPERATIONAL FOCAL LENGTH	55.88 MM	54.96 MM
RADIAL DISTORTION		
18 DEG. OFF AXIS	0.018 MM	0.028 MM
28 DEG. OFF AXIS	0.038 MM	0.068 MM
TANGENTIAL DISTORTION (MAXIMUM VECTOR)	0.015 MM	0.015 MM

RESOLUTION

ANGLE OFF AXIS-DEG.	0	5	18	15	28	25	27.5	38
TAKE-UP (RADIAL)	289	288	184	168	139	169	-8	91
(TANGENTIAL)	187	185	114	78	73	77	-8	78
SUPPLY (RADIAL)	289	186	184	181	156	134	-8	57
(TANGENTIAL)	289	185	181	155	116	189	-8	78

DYNAMIC (ZERO DEG)
 TAKE-UP -8 LINES/MM
 SUPPLY -8 LINES/MM

NOTE

1. DISTORTION AND RESOLUTION ARE READ AT EQUIVALENT OPERATIONAL FOCAL LENGTH.
2. RESOLUTION IN LINES PER MM ON 3484 FILM AND HIGH CONTRAST TARGET.