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~~TOP SECRET~~

ARGON CORONA [redacted] NYARD

[redacted]

TECHNICAL PUBLICATION

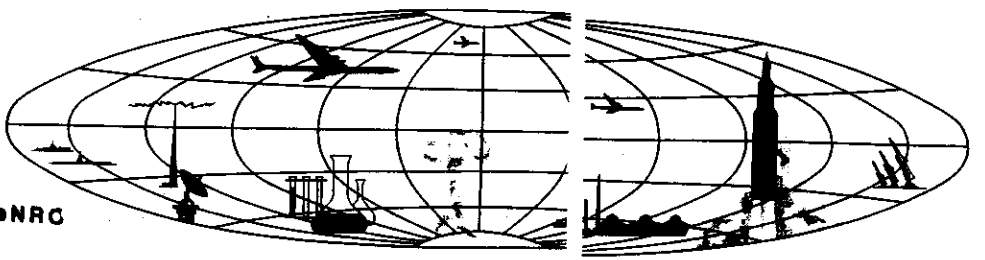
SATELLITE RECONNAISSANCE HISTORY

Handle Via [redacted]-TALENT-KEYHOLE Controls Jointly

WARNING

[redacted]

NATIONAL PHOTOGRAPHIC INTERPRETATION CENTER



~~TOP SECRET~~

ARGON CORONA [redacted] NYARD

GROUP 1
Excluded from automatic downgrading and declassification

FOREWORD

The information contained in this history was gathered from many different sources, the reliability of which has not been definitely established. It is believed, however, that if any inaccuracies do exist, they are of a minor nature and that the figures shown represent a true picture of the effort to obtain terrestrial photography through the use of orbiting satellites.

The reader will undoubtedly note many blanks in this compilation of facts and figures. These spaces indicate that the information specified does not apply to the case in question or it was not available to the writers before publication.

A P P E N D I X

Explanation of Columns:

A. Remarks - If the capsule was recovered, the first entry is the orbit number on which re-entry occurred. Other remarks explain failures and degradations, and, where the information is available, they also point out some major changes in design and important firsts.

B. Mission Data - The dates and times are universal time. The column titles are self explanatory.

C. Orbital Characteristics - The programmed orbital parameters are entered in the top half of the boxes. The actual average parameters are listed in the bottom half of the space if the vehicle achieved orbit. The vehicle attitude is considered to be within normal tolerances unless specified otherwise under the appropriate heading.

D. Camera Data - The camera and system designations are self explanatory. Camera numbers are listed for applicable cameras. Under the general subheading of camera operation, the descriptions are divided into two parts. The first part at the top of each block describes the mechanical operation of the camera by the following abbreviations:

OP - Operable. The camera functioned as it was designed to function. This information is gained from the film evaluation or from data telemetered back to earth.

IMF - Intermittent malfunction. The camera functioned as designed during portions of the mission and did not function or functioned unsatisfactorily at other times.

CMF - Complete malfunction. The camera did not function when programmed for operation, or its operation was totally unsatisfactory.

~~Handle Via~~ [redacted] ~~TALENT~~ -
~~KEYHOLE Channels Jointly~~

The second part of the camera operation description, found in the bottom half of the block, is an evaluation of the film product of the camera. This description reflects the mechanical operation of the camera; the design of the camera and system; the programming of the launch, orbit, and camera operations; the design of the film; the processing of the film; and almost any malfunction of any system. Only a rough generalization of the quality is given here, although some specifics are indicated by other columns. The common subjective comparisons of E-excellent, G-good, F-fair, P-poor, and U-unusable are used.

E. Film Data - Under the general heading of film data, the subtitle "Number of Photo Passes" indicates the total number of passes on which photography was taken whether it be operational, domestic, or engineering. "Minimum Sun Angle" refers to the same on passes which have imagery recorded on the photography. The passes as well as the sun angles are noted in the blocks. The operation of the binary recording unit is described in the column titled "Data Block". The notations listed under this heading are similar in form to those under "Camera Operations" with the exception that no quality ratings are given, only the note "ER" is used when appropriate. "ER" - erratic - means the digitate did not keep proper time. The "Total Number of Frames" blocks are also divided in two, the upper portion denotes the film type, the lower indicates the number of frames. "MIP" or Mission Information Potential is another subjective quality comparison used by the NPIC evaluation team. This numerical rating shows the relationship between each of the missions' best photography.

F. Mission Coverage Statistics - The information tabulated here originates from the plotting section of NPIC. "Linear Ground Coverage" is the number of nautical miles along the flight line the Master camera scanned. Photography on which identifiable features are imaged is described as plottable, and the area of terrain over which the photography was taken is noted as "Plottable Coverage". The total coverage for each main camera is listed first, followed by a breakdown giving the additive coverage of the main camera in the primary regions of concern. It must be remembered, however, that much of the coverage of one camera is duplicated by the other.

G. Miscellaneous - In the column labled "Type of Recovery" is noted a "D" or "W" signifying a dry recovery, the capsule was recovered in the air, or wet recovery, the capsule landed in the sea and was recovered from there. "Additional Payloads" are instruments other than the main cameras which have independent missions to perform.

Mission	FILM DATA: Number of Photo Passes	Minimum Sun Angle	Data Block	Total Number of Frames: Master	Slave	S	F	Per-cent of Overall Cloud Cover	HIP	Total Film Available Ft.	Total Film Expend Ft.	MISSION COVERAGE STATISTICS: Linear Ground Coverage NM	Plottable Coverage, Square NM: Master	Slave	USSR	China	Other Soviet Bloc	Number of COMOR Targets Priority 1 & 2	Bonus Targets Cat 3 or Better	MISCELLANEOUS: Type of Recovery	Additional Payloads	REMARKS
1008-1	22	27° *	OP	4404 / 2847	4404 / [illegible]	[illegible] / 404	[illegible] / [illegible]	41.8	[illegible]	31,690										J	—	
1008-2	28	31° *	OP	4404 / 3008	4404 / 3030	4401 / 421	4400 / [illegible]	46.7	[illegible]	16,025 (?)										J	—	
1009-1	26	18° *	IMF	[illegible] / 2377	4404 / 2360	4401 / 338	4400 / [illegible]	46.4	[illegible]	3,15[illegible]		19,032								J	—	
1009-2	29	22° *	IMF	4404 / 3125	4404 / 3120	4401 / 412	4400 / 436	49.7	[illegible]	18,414	65[illegible]	22,568 (?)								J	—	
1010A (?)				4400 / Approx 7400		4400 / Approx 7400		Approx 60												J (?)		
1010-1	26	20° *	OP	[illegible] / [illegible]	4404 / 2343	[illegible] / 422	[illegible] / 423	47.6	[illegible]	37,000	[illegible]	22,485								J	—	
1010-2 (?)	23	12° *	OP	[illegible] / 2941	[illegible] / 2946	[illegible] / [illegible]	[illegible] / [illegible]	46.[illegible]		15,662	[illegible]	[illegible]								J	—	
1011-1	29	0° *	[illegible]	[illegible] / 2915	[illegible] / 2935	[illegible] / 4[illegible]	[illegible] / [illegible]	[illegible]		3,[illegible]	[illegible]									[illegible]		
1011-2				[illegible]	[illegible]	[illegible]	[illegible]			[illegible]												

* Rough Estimate

LAUNCH

REMARKS	MISSION DATA: MISS ON & DISCOVERER NOS	MISSION DATA: SYSTEM NUMBER	MISSION DATA: DATE & TIME: LAUNCH	MISSION DATA: DATE & TIME: RECOVERY	MISSION DATA: VEHICLE TYPE & NUMBER	ORBITAL CHARACTERISTICS: PERIGEE PLANNED & ACTUAL	ORBITAL CHARACTERISTICS: APOGEE PLANNED & ACTUAL	ORBITAL CHARACTERISTICS: PERIOD PLANNED & ACTUAL	ORBITAL CHARACTERISTICS: INCLN. AT ON ANGLE PLANNED & ACTUAL	ORBITAL CHARACTERISTICS: ECCENTRICITY PLANNED & ACTUAL	ORBITAL CHARACTERISTICS: VEHICLE ATTITUDE	CAMERA DATA: CAMERA SYSTEM	CAMERA DATA: CAMERA NUMBERS: MASTER	CAMERA DATA: CAMERA NUMBERS: SLAVE	CAMERA DATA: CAMERA NUMBERS: I/I	CAMERA DATA: CAMERA OPERATION: MASTER	CAMERA DATA: CAMERA OPERATION: SLAVE	CAMERA DATA: CAMERA OPERATION: STELLAR	CAMERA DATA: CAMERA OPERATION: INDEX	CAMERA DATA: CAMERA OPERATION: MASTER HORIZON CAMERA: PORT	CAMERA DATA: CAMERA OPERATION: MASTER HORIZON CAMERA: STARBOARD	CAMERA DATA: CAMERA OPERATION: SLAVE HORIZON CAMERA: PORT	CAMERA DATA: CAMERA OPERATION: SLAVE HORIZON CAMERA: STARBOARD
Auxiliary equipment occasionally malfunctioned i.e. No horizon camera fiducials and no camera number were recorded.																								
Recovered on Orbit 107. The index camera failed after frame 107. The stellar camera had a light leak. The slave auxiliary equipment still occasionally malfunctioned.																								
Recovered on Orbit 107. The slave starboard horizon camera shutter failed to open a few times and the imagery from this camera is soft through orbit 0-10																								
Recovered on Orbit 107. The slave starboard horizon camera still malfunctioned occasionally.																								
Recovered on Orbit 17. Flares from possible moon reflections degraded part of the stellar formats.																								
Recovered on Orbit 65. The timing marks of the slave unit appear as continuous smears on a few frames.																								
Recovered on Orbit 144. The slave's timing marks still appear on occasion.																								
Recovered on Orbit 65. The timing marks of the slave unit again appear as smears on several frames. New stereo mode [illegible]																								
A recovery attempt was made on orbit 112 with the primary recovery mode but it failed to respond. The secondary mode was not utilized at this time. Another attempt was made on orbit 135 with no success.																								

REMARKS	MISSION DATA: Mission & Discoverer Nos	MISSION DATA: System Number	Date & Time: Launch	Date & Time: Recovery	Vehicle Type & Number	ORBITAL CHARACTERISTICS: Perigee Planned & Actual NM	Apogee Planned & Actual NM	Period Planned & Actual Min	Inclination Angle Planned & Actual	Eccentricity Planned & Actual	Vehicle Attitude	CAMERA DATA: Camera System	Camera Numbers: Master	Camera Numbers: Slave	Camera Numbers: S/I	Camera Operation: Master	Camera Operation: Slave	Camera Operation: Stellar	Camera Operation: Index	Master Horizon Camera: Port	Master Horizon Camera: Starboard	Slave Horizon Camera: Port	Slave Horizon Camera: Starboard
Launch vehicle failed to orbit.	9001 IV		25 Jun 59	No Orbit	Agena A 1023			89.63	83.6°			C KH-1	4										
Low temperature adversely affected battery which precluded recovery.	9002 V		13 Aug 59	No Recovery	Agena A 1029	105.7		89.63	83.6°	.0101		C KH-1	7			OP							
Retro-rocket malfunctioned.	9003 VI		19 Aug 59	No Recovery	Agena A 1028							C KH-1	6			OP							
	9004 VII		7 Nov 59	No Orbit	Agena A 1051			93.5	79.89°			C KH-1	10										
Eccentric orbit. Wrong altitude. Camera malfunctioned.	9005 VIII		20 Nov 59 1925Z	No Recovery	Agena A 1050	104	380	93.5	79.9°			C KH-1	9										
						100	909.8	103.7	80.66°														
Agena helium supply lost. Thor booster cut off too soon. Agena pitch gyro tumbled. Vehicle failed to achieve orbit.	9006 IX		4 Feb 60 1852Z	No Orbit	Agena A 1052	101.6	376	93.5	79.9°			C KH-1	8										
Destroyed by range safety officer. Exceeded safety regulations at 21,000' (56 seconds).	9007 X		19 Feb 60 2015Z	Destroyed	Agena A 1054	99	378	93.5	79.9°			C KH-1	13										
Spin rocket failed.	9008 XI		15 Apr 60 2031Z	No Recovery	Agena A 1055	101.6	380.2	93.44	79.91°			C KH-1	14			OP							
						92.1	329.6	92.32	80.37°														
Capsule recovered on orbit 17. First photography obtained from satellite. Pressure streaks throughout from "corn cob" roller. Medium to coarse grain due to emulsion.	9009 XIV		18 Aug 60 1957Z	19 Aug 60	Agena A 1056	104.3	377.9	93.44	79.63°	.0375		C KH-1	3			OP				OP	OP		
						103.5	441	94.54	79.63°							P				P	P		
Attained orbit successfully. Ejection and recovery sequence completed. Vehicle pitch attitude improper at re-entry. Impact occurred south of recovery forces. Capsule located, but sank prior to retrieval.	9010 XV		13 Sep 60 2214Z	Sank	Agena A 1058	104.31	377.9	93.44	79.63°	.0376		C KH-1	11			OP							
						114.2	416	94.2	80.91°														
"D" timer malfunctioned. Agena failed to separate from booster. First use of C' (KH-2) camera.	9011 XVI		26 Oct 60 2026Z	No Orbit	Agena A 1061	114	370	93.5	81.81°	.0376		C' KH-2	15										

FILM DATA												MISSION COVERAGE STATISTICS								MISCELLANEOUS					REMARKS
NUMBER OF PHOTO PASSES	MINIMUM SUN ANGLE	DATA BLOCK	TOTAL NUMBER OF FRAMES				PERCENT OF OVERALL CLOUD COVER	MIF	TOTAL FILM AVAILABLE FT.	TOTAL FILM EXPENDED FT.	LINEAR GROUND COVERAGE nm	PLOTTABLE COVERAGE, SQUARE nm					OTHER SOVIET BLOC	NUMBER OF COMOR TARGETS PRIORITY 1 & 2	BONUS TARGETS CAT 3 OR BETTER	TYPE OF RECOVERY	ADDITIONAL PAYLOADS	
			MASTER	SLAVE	S	I						MASTER	SLAVE	USSR	CHINA	I							
9		IMF	1188					20	3,600	3,353	11,038	1,775,067		1,350,612	22,200	1	198,700	151	–	D				
		ER	1280																					

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REMARKS	MISSION DATA: MISSION & DISCOVERER NOS.	SYSTEM NUMBER	DATE & TIME: LAUNCH	DATE & TIME: RECOVERY	VEHICLE TYPE & NUMBER	ORBITAL CHARACTERISTICS: PERIGEE PLANNED & ACTUAL (NM)	APOGEE PLANNED & ACTUAL (NM)	PERIOD PLANNED & ACTUAL (MIN)	INCLINATION ANGLE PLANNED & ACTUAL	ECCENTRICITY PLANNED & ACTUAL	VEHICLE ATTITUDE	CAMERA DATA: CAMERA SYSTEM	CAMERA NUMBERS: MASTER	SLAVE	S/I	CAMERA OPERATION: MASTER	SLAVE	STELLAR	INDEX	MASTER HORIZON CAMERA: PORT	MASTER HORIZON CAMERA: STAR-BOARD	SLAVE HORIZON CAMERA: PORT	SLAVE HORIZON CAMERA: STAR-BOARD
Capsule recovered on orbit 31. Film broke and only 1.7' of leader was contained in capsule.	9012 XVII		12 Nov 60 2043Z	14 Nov 60	Agena A 1052	114.2	386.3	94.8	81.8°	.006		C' KH-2	17										
						103.3	530	95.44	81.69°														
Capsule recovered on orbit 48. First used of Agena B. Film grainy due to emulsion. Light leak through port horizon camera.	9013 XVIII		7 Dec 60 2021Z	10 Dec 60	Agena B 1103	126.7	332	93.8	81.8°	.0195		C' KH-2	19			OP				CMF	OP		
						136	380	93.67	81.49°							P				U	P		
Programmer malfunctioned and capsule did not reenter. First attempted Argon Mission.	9014A XX	A-1	17 Feb 61	No Recovery	Agena B 1104	167		93.4	81.8°	.0195		A KH-5	3										
Second stage failed to attain orbital velocity.	9015 XXII		30 Mar 61	No Orbit	Agena B 1105	130		93.8	81.7°	.032		C' KH-2	18										
Loss of control gas caused unstable condition after orbit 9.	9016A XXIII	A-2	8 Apr 61	No Recovery	Agena B 1106	165		94.4	81.71°	.0272		A KH-5	4			OP							
Electrical failure occurred in launch sequence guidance system.	9018A XXIV	A-3	8 Jun 61	No Orbit	Agena B 1108	165		93.8	82.0°	.024		A KH-5	8										
Capsule recovered on orbit 32. Pressure streaks and minus density dots degrade film.	9017 XXV		16 Jun 61	19 Jun 61	Agena B 1107	130		91.6	81.9°	.017		C' KH-2	16			OP				OP	OP		
																P				P	P		
Capsule recovered on orbit 33. Pressure streaks from corn cob roller are present on film. Camera malfunctioned on orbit 22.	9019 XXVI		8 Jul 61	10 Jul 61	Agena B 1109							C' KH-2	20			OP/CMF				OP	OP		
																P				P	P		
Destroyed by range safety officer because of abnormal pitch rate.	9020A XXVII	A-4	21 Jul 61 2235Z	Destroyed	Agena B 1110							A KH-5	7										
Agena guidance system failed.	9021 XXVIII		3 Aug 61	No Orbit	Agena B 1111	130		91.6	81.8°	.017		C' KH-2	21										
Capsule recovered on orbit 32. First use of C''' camera. Most of each frame is out of focus. Mistracking of film occurred on orbit 26 possibly causing termination of camera operation.	9023 XXIX		30 Aug 61	1 Sep 61	Agena B 1112	130		91.0	82.6°	.013		C''' KH-3	54			OP				OP	OP		
																P				P	P		

FILM DATA											MISSION COVERAGE STATISTICS							MISCELLANEOUS			
NUMBER OF PHOTO PASSES	MINIMUM SUN ANGLE	DATA BLOCK	TOTAL NUMBER OF FRAMES: MASTER	SLAVE	S	I	PERCENT OF OVERALL CLOUD COVER	MIP	TOTAL FILM AVAILABLE FT.	TOTAL FILM EXPEND FT.	LINEAR GROUND COVERAGE NM	PLOTTABLE COVERAGE, SQUARE NM: MASTER	SLAVE	USSR	CHINA	OTHER SOVIET BLOC	NUMBER OF COMOR TARGETS PRIORITY 1 & 2	BONUS TARGETS CAT 3 OR BETTER	TYPE OF RECOVERY	ADDITIONAL PAYLOADS	REMARKS
			1188 1.7' Leader Only																		
30	D21 0°37'	OP ER	1188 2656					30	7,200	7,012	19,416	3,883,200		2,937,800	466,200	151,000	124	-	D		
33	D07 33°34'	OP ER	4400 2529					45	7,200	6,479	18,874	3,774,620		3,009,800	250,000	163,200	66	51	W		
20	D07 34°03'	OP ER	4400 2037					45	7,200	5,378	20,341	5,919,209		4,976,342	108,468	191,356	51	-	D		
19	D20 21°20'	IMF ER	4404 2575					65	7,000	6,798	18,486	3,073,860		1,564,400	485,604	281,540	49	44	D		

REMARKS	MISSION DATA					ORBITAL CHARACTERISTICS						CAMERA DATA															
	MISSION & DISCOVERER NOS	SYSTEM NUMBER	DATE & TIME LAUNCH	DATE & TIME RECOVERY	VEHICLE TYPE & NUMBER	PERIGEE PLANNED & ACTUAL NMI	APOGEE PLANNED & ACTUAL NMI	PERIOD PLANNED & ACTUAL MIN	INCLINATION ANGLE PLANNED & ACTUAL	ECCENTRICITY PLANNED & ACTUAL	VEHICLE ATTITUDE	CAMERA SYSTEM	CAMERA NUMBERS MASTER	CAMERA NUMBERS SLAVE	CAMERA NUMBERS S/I	CAMERA OPERATION MASTER	CAMERA OPERATION SLAVE	CAMERA OPERATION STELLAR	CAMERA OPERATION INDEX	CAMERA OPERATION MASTER HORIZON CAMERA PORT	CAMERA OPERATION MASTER HORIZON CAMERA STARBOARD	CAMERA OPERATION SLAVE HORIZON CAM PORT	CAMERA OPERATION SLAVE HORIZON CAM ST. BD.
ule recovered on orbit 33. Leading edge of film is out of focus. Numerous minus density cs are present.	9022 XXX		12 Sep 61 1958Z	14 Sep 61	Agena B 1113	129	223	91.0	81.8°	.013		C''' KH-3	53			OP				OP	OP		
						125	312.5	92.4	82.7°							P				P	P		
r failure and control gas loss occurred on orbit 33.	9024 XXXI		17 Sep 61 2100Z	No Recovery	Agena B 1114	129.8	222.8	91.0	81.9°	.013		C''' KH-3	55			OP							
						131.2	226.8	90.95	82.7°														
ule recovered on orbit 18. Ninety-six percent of the imagery is out of focus.	9025 XXXII		13 Oct 61 1123Z	14 Oct 61 2307Z	Agena B 1115	127	225	91.0	81.79°	.013		C''' KH-3	56			OP				OP	OP		
						125	218	90.85	81.63°	.01268						P				P	P		
na failed to separate from Thor booster. Control gas lost.	9026 XXXIII		23 Oct 61 2022Z	No Orbit	Agena B 1116	122	224	91.0	81.8°	.013		C' KH-2	22										
oper launch angle resulted in extreme orbit. Gas valve failed. Recovery not attempted.	9027 XXXIV		5 Nov 61 2001Z	No Recovery	Agena B 1117	128	224	91.0	81.8°			C' KH-2	24			OP							
						131	543	97.11	82.53°														
sule recovered on orbit 18. Control gas used at unusually high rate. Film emulsion is ry and of heavy density.	9028 XXXV		15 Nov 61 2123Z	16 Nov 61	Agena B 1118	129	224	91.0	81.78°			C' KH-2	25			OP				OP	OP		
						136	165	89.84	81.56°							F				P	P		
sule recovered on orbit 64. Emulsion 4404 was underexposed and emulsion 4400 was over-osed. An out-of-focus streak is present.	9029 XXXVI		12 Dec 61 2040Z	16 Dec 61	Agena B 1119	132	225	91.01	81.8°			C''' KH-3	52			OP				OP	OP		
						131	271	91.85	81.23°							F				P	P		
ena failed.	9030 XXXVII		13 Jan 62 2141Z	No Orbit	Agena B 1120	114	243	91.09	81.8°			C''' KH-3	57										
sule recovered on orbit 65. First use of KH-4 camera system employing two C''' cameras. h cameras slightly out-of-focus.	9031 XXXVIII	M1	27 Feb 62 1939Z	3 Mar 62	Agena B 1123	111	244	91.07	81.78°			C'''' KH-4	70	71	74	OP	OP		CMF	OP	OP	MF	OP
						114	224	90.62	82.32°							F	F			G	G	G	G
sule recovered on orbit 33. Master port horizon camera shutter remained open 59 times ging adjacent pan frames. Slave camera film contains a continuous minus density streak.	9032 XXXIX	M2	18 Apr 62 0054Z	20 Apr 62	Agena B 1124	112	225	90.72	73.97°			C'''' KH-4	72	73		OP	OP			MF	OP	OP	OP
						112	278	91.71	73.49°							G	G			P	P	P	P
rachute ejector squibs holding parachute container cover failed to fire.	9033 XL	M3	28 Apr 62	No Recovery	Agena B 1125							C'''' KH-4	74	75	76								

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FILM DATA											MISSION COVERAGE STATISTICS								MISCELLANEOUS		REMARKS
NUMBER OF PHOTO PASSES	MINIMUM SUN ANGLE	DATA BLOCK	TOTAL NUMBER OF FRAMES				PERCENT OF OVERALL CLOUD COVER	MIF	TOTAL FILM AVAILABLE FT.	TOTAL FILM EXPEND FT.	LINEAR GROUND COVERAGE NM	PLOTTABLE COVERAGE, SQUARE NM					NUMBER OF CORON TARGETS PRIORITY 1 & 3	BONUS TARGETS CAT 3 OR BETTER	TYPE OF RECOVERY	ADDITIONAL PAYLOADS	
			MASTER	SLAVE	I	I						MASTER	SLAVE	USSR	CHINA	OTHER INTEST BLOC					
35	A46	MF	4404	4404	4400	S0206	65	80	15,600	12,516	19,841	3,504,127	3,130,777	4,803,122	958,392	461,870	71	10	D		
	3°55'	ER	2413	2346	346	329															
34	D50	OP	4404	4404	4400	S0206	55	80	15,600	14,946	17,931	3,012,975	3,629,494	4,552,300	1,177,658	597,700	125	4	D		
	-3°07'	ER	2842	2841	428	430															
28	D70	OP	4404	4404	4400	S0206	49	80	15,600	14,896	18,729	3,193,345	3,218,664	4,057,985	1,227,835	341,768	107	2	D	[redacted]	
	-3°03'	ER	2830	2834	91	91															
22	D40 D39 D24*	OP	4404	4404	4400	S0206	50	80	15,600	14,704	25,017	4,042,506	4,031,426	3,537,375	2,969,860	441,874	104	3	D		
	4°	ER	2803	2788	411	411		85													
23		OP	4404	4404	4400	S0206		0	15,600	15,086									W		
		ER	2836	2900	423	423															
21	A35	OP	4404	4404	4400 & 4401	S0206	45	90	15,600	12,845	21,592	3,451,623	3,383,504	4,615,314	1,114,843	194,686	129	4	D		
	1°42'	ER	2462	2422	352	352															

*Rough estimate.

LAUNCH

REMARKS	MISSION DATA						ORBITAL CHARACTERISTICS					CAMERA DATA															
	MISSION & DISCOVERER NOS	SYSTEM NUMBER	DATE & TIME		VEHICLE TYPE & NUMBER	PERIOD PLANNED & ACTUAL MIN	APOGEE PLANNED & ACTUAL NM	PERIOD PLANNED & ACTUAL MIN	INCLINATION ANGLE PLANNED & ACTUAL	ECCENTRICITY PLANNED & ACTUAL	VEHICLE ATTITUDE	CAMERA SYSTEM	CAMERA NUMBERS			CAMERA OPERATION										
			LAUNCH	RECOVERY									MASTER	SLAVE	SA	MASTER	SLAVE	STELLAR	INDEX	MASTER HORIZON CAMERA		SLAVE HORIZON CAMERA				
																				PORT	STAR-BOARD	PORT	STAR-BOARD			
Capsule recovered on orbit 63.	9034A XLI	A-5	15 May 62 1936Z	19 May 62	Agena B 1126	165	337	93.83	81.96°	.023		A KH-5	5													
						161	351	94.03	82.35°																	
Capsule recovered on orbit 49. Problems with control gas occurred during mission. Master starboard horizon camera shutter remained open 114 times, fogging adjacent pan frames. Master horizon cameras had no filters, causing overexposed film.	9035 XLII	M-4	29 May 62 0000Z	1 Jun 62	Agena B 1128	112.4	221	90.64	73.53°	.015		C*** KH-4	76	77	82	OP	OP		CMF	OP	MF	OP	OP			
						104.3	196	90.06	74.16°	.0124						F	F			U	U	P	P			
During air snatch, the chute tore loose. Capsule floated for 3 minutes, then sank.	9036 XLIII	M-5	2 Jun 62	Sank	Agena B 1127	113		90.7	75.0°	.015		C*** KH-4	78	79	76	OP	OP		OP							
Capsule recovered on orbit 90. Film degraded by light leaks, scratches, streaks and possible static discharges. Slave horizon cameras had no filters, overexposing film.	9037 XLIV	M-6	23 Jun 62 0238Z	25 Jun 62 0341Z	Agena B 1129	113.4	220	90.63	74.97°	.015		C*** KH-4	80	81	88	OP	OP		MF	OP	OP	OP	OP			
						113.6	168	89.67	75.10°	.00765						F	F		P	P	P	U	U			
Capsule recovered on orbit 63. First use of Agena D. Corona static seriously degraded 25% of mission. No filters used on main horizon cameras.	9038 XLV	M-7	28 Jun 62 0109Z	2 Jul 62	Agena D 1151	114.5	222	90.64	75.81°	.015		C*** KH-4	84	85	80	OP	OP		CMF	OP	OP	OP	OP			
						113	184	93.68	76.06°	.0365						F	G			U	U	P	P			
Capsule recovered on orbit 33. Possible power failure occurred in camera programmer. Radiation caused uniform fogging in film. Corona static also degraded the film.	9039 XLVI	M-8	21 Jul 62 0256Z	23 Jul 62 0323Z	Agena B 1130	113.7	211	90.44	78.01°	.013		C*** KH-4	90	91	90	OP	OP		MF	CMF	OP	OP	MF			
						110.8	212	90.43	70.39°	.0137						F	F		G		P	P	P			
Capsule recovered on orbit 65. The capsule temperature was 70°. Corona and radiation fog affects 90% of film. Slave horizon cameras has no filters; film overexposed.	9040 XLVII	M-9	27 Jul 62	31 Jul 62	Agena B 1131	113		90.5	78.0°	.013		C*** KH-4	82	83	86	OP	OP		MF	OP	OP	OP	OP			
						111	225	90.7	71.04°	.0158						F	F		G	P	P	U	U			
Capsule recovered on orbit 65. Capsule temperature was 80°. Corona static degrades film from both main cameras. Wratten 12 filter used in slave horizon cameras; film overexposed.	9041 XLVIII	M-10	1 Aug 62	5 Aug 62	Agena D 1152	113		91.0	82.0°	.018	Orbit 2A Pitch roll yaw	C*** KH-4	88	89	94	OP	OP		MF	MF	OP	OP	OP			
						111	228	90.75	82.25°	.016						F	F		P	P	P	P	P			
Capsule recovered on orbit 65. Excessive roll on last 14 orbits.	9044 XLIX	M-11	28 Aug 62	1 Sep 62	Agena D 1153	113		90.1	65°	.011	Orbit 51-65 roll	C*** KH-4	92	93	84	OP	OP		MF	OP	CP	OP	OP			
						96.1	210.8	90.16	65.23°	.0159						F	F		P	P	P	P				
Parachute shrouds parted during air snatch. Capsule sank.	9042A L	A-10	1 Sep 62	Sank	Agena B 1132	165		93.8	82.0°	.023		A KH-5	10			OP										
Capsule recovered on orbit 17. Early recovery initiated because of extreme apogee and high radiation at such altitudes. Slave camera capping shutter malfunctioned. Radiation fogged film from both main cameras.	9043 LI	M-12	17 Sep 62	18 Sep 62	Agena B 1133	113		90.16	65.0°	.011		C*** KH-4	94	95	92	OP	MF		MF	OP	OP	OP	OP			
						112	362	93.33	81.87°	.034						F	F		P	P	P		P			

[redacted]

HISTORY

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FILM DATA											MISSION COVERAGE STATISTICS								MISCELLANEOUS		REMARKS
NUMBER OF PHOTO PASSES	MINIMUM SUN ANGLE	DATA BLOCK	TOTAL NUMBER OF FRAMES				PERCENT OF OVERALL CLOUD COVER	IMP	TOTAL FILM AVAILABLE FT.	TOTAL FILM EXPENDED FT.	LINEAR GROUND COVERAGE NM	PLOTTABLE COVERAGE, SQUARE NM					NUMBER OF CONOR TARGETS PRIORITY 1 & 2	BONUS TARGETS CAT 3 OR BETTER	TYPE OF RECOVERY	ADDITIONAL PAYLOADS	
			MASTER	SLAVE	S	I						MASTER	SLAVE	USSR	China	OTHER SOVIET BLOC					
22	D21	IMF	4404				57	65	7,800	7,078	24,184	4,165,845		2,371,696	744,168	306,149	33	14	D		
	17°30'	ER	2681																		
12	D07	IMF	4400 & 4404				61	55	7,800	2,107	6,532	1,146,400		753,400	116,800	0	19	2	D		
	7°50'	ER	798																		
10	D05	IMF	4400				65	50	7,200	2,508	6,274	1,155,320		516,632	318,987	99,029	9	5	D		
	1°58'	ER	950																		
18	-0° 06'	IMF	4400 & 4404					70 & 80	7,800	7,292	25,526	4,712,259		2,361,483	1,196,282	347,549	102	17	W		
		ER	2748																		
28	D21	OP	4404	4404		4400	60	70	15,600	14,218	21,431	3,335,714	3,196,999	5,172,981	720,171	235,500	134	6	D		
	5°02'	ER	2698	2708		0															
25	D21	OP	4404	4404			65	85	15,200	8,755	18,123	3,758,984	3,758,278	5,688,654	898,504	444,100	115	3	D		
	19°41'	ER	1674	1655																	

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REMARKS	MISSION & DISCOVERER NOS	SYSTEM NUMBER	DATE & TIME: LAUNCH	DATE & TIME: RECOVERY	VEHICLE TYPE & NUMBER	PERIGEE PLANNED & ACTUAL NM	APOGEE PLANNED & ACTUAL NM	PERIOD PLANNED & ACTUAL MIN	INCLINATION ANGLE PLANNED & ACTUAL	ECCENTRICITY PLANNED & ACTUAL	VEHICLE ATTITUDE	CAMERA SYSTEM	CAMERA NUMBERS: MASTER	CAMERA NUMBERS: SLAVE	CAMERA NUMBERS: SI	CAMERA OPERATION: MASTER	SLAVE	STELLAR	INDEX	MASTER HORIZON CAMERA: PORT	MASTER HORIZON CAMERA: STARBOARD	SLAVE HORIZON CAMERA: PORT	SLAVE HORIZON CAMERA: STARBOARD
Capsule recovered on orbit 49. First use of stellar camera. Port roll exceeded tolerances on 27 orbits. Scratches and abrasions degrade film from slave camera.	9045 LII	M-13	29 Sep 62 2335Z	3 Oct 62 0205Z	Agena D 1154	113	140	90.1	65.0°	.011	Roll	C'''² KH-4	96	97	D3	OP	OP	MF	MF	OP	MF	OP	OP
						110	202	90.28	65.28°	.0129						F	F	U	G	P	P	P	P
Capsule recovered on orbit 65. Orbit too elliptical.	9046A LIII	A-9	9 Oct 62 1835Z	13 Oct 62 2150Z	Agena B 1134	162	165	90.5	82.0°	.0004		A KH-5	9										
						121	244	91.02	82.0°	.017													
Capsule recovered on orbit 65. Master camera door did not open during 7 photo passes. Upon opening, a piece of tape adhered to vehicle, reflecting light into the cameras.	9047 LIV	M-14	5 Nov 62 2205Z	10 Nov 62 0058Z	Agena B 1136	113	240	90.7	75.0°	.015		C'''¹ KH-4	98	99	D5	OP	OP	OP	OP	OP	OP	OP	OP
						110	210	90.7	75.0°	.015						F	F	U	G	P	P	P	P
Capsule recovered on orbit 81. Master camera had focus problem. Slave camera was loaded incorrectly. The film was exposed through the base.	9048 LV	M-15	24 Nov 62 2200Z	30 Nov 62 0003Z	Agena B 1135	113	240	89.90	65.0°	.011		C'''² KH-4	100	101	D7	OP	OP	MF	MF	OP	OP	OP	OP
						113	184	89.93	65.0°	.0099						F	P	P	G	F	F	F	F
During air snatch, chute tore, capsule sank. Partial failure of ascent guidance in Agena.	9049 LVI	M-16	4 Dec 62 2130Z	Sank	Agena D 1155	113	240	90.10	65.0°	.011		C'''² KH-4	86	87	D2								
						72	179	88.98	65.2°	.0149													
Capsule recovered on orbit 64. Film from slave camera degraded possibly because of use of Wratten 12 filter in place of Wratten 21 filter.	9050 LVII	M-17	14 Dec 62 2126Z	19 Dec 62 0008Z	Agena D 1156	113	185	90.5	70.0°	.013		C'''² KH-4	102	103	D4	OP	OP	OP	OP	OP	OP	OP	OP
						110	223	90.52	70.61°	.0142						F	P	P	P	F	F	F	F
Capsule recovered on orbit 64. Capsule found 1000 miles out of impact area. Excessive pitch and roll caused by malfunction in Agena on-orbit control.	9051 LVIII	M-18	7 Jan 62 2110Z	12 Jan 62 1730Z	Agena D 1157	110	215	90.50	82.0°	.015	Pitch Roll	C'''² KH-4	104	105	D8	OP	OP	OP	OP	OP	OP	OP	OP
						110	222	90.62	82.2°	.0155						U	U	U	U	U	U	U	U
Destroyed by range safety officer 100 seconds after launch. First use of TAT-3 Booster. Booster failed because 3rd TAT bottle was inoperative.	9052 LIX	M-20	4 Mar 63	Destroyed	Agena D 1159	90	248	90.7	75.0°	.023		C'''² KH-4	108	109	D6								
Pneumatic guidance failed on Agena. First attempt to use KH-6 camera system.	8001 LX	L-1	18 Mar 63 2113Z	No Orbit	Agena D 1164	90	248	90.7	75.0°	.023		KH-6	3		S2/2/2								
Capsule recovered on orbit 49. Agena had power supply problem, 400 cycle inverter failed.	9053 LXI	M-19	1 Apr 63 2300Z	5 Apr 63 0139Z	Agena D 1160	113	223	90.7	75.0°	.015		C'''² KH-4	106	107	D10	OP	OP	OP	OP	MF	OP	MF	MF
						113	224	90.68	75.3°	.0154						G	G	F	G	F	F	F	F
Attitude sensors were misaligned.	9055A LXII	A-12	26 Apr 63 2012Z	No Orbit	Agena D 1411	162	165	90.5	82.0°	.0004		A KH-5	12										

FILM DATA											MISSION COVERAGE STATISTICS							MISCELLANEOUS		REMARKS
NUMBER OF PHOTO PASSES	MINIMUM SUN ANGLE	DATA BLOCK	TOTAL NUMBER OF FRAMES: MASTER	SLAVE	S	T	PERCENT OF OVERALL CLOUD COVER	MAP	TOTAL FILM AVAILABLE FT.	TOTAL FILM EXPENDED FT.	LINEAR GROUND COVERAGE Nm	PLOTTABLE COVERAGE, SQUARE Nm: MASTER	SLAVE	USSR	CHINA	OTHER SOVIET BLOC	NUMBER OF CORONA TARGETS PRIORITY 1 & 2	BONUS TARGETS CAT 3 OR BETTER	TYPE OF RECOVERY	ADDITIONAL PAYLOADS	
																			D		
43	A31	OP	4404	4404		4400	55	75	15,600	14,678	28,211	5,425,585	5,512,479	9,027,012	1,899,868	644,442	138	28	D		
	2°18'	ER	2799	2782		0															
36	A31	OP	4404	4404		4400	52	80	15,600	14,091	28,029	4,915,953	5,066,327	8,400,139	903,952	588,860	102	11	D		
	7°18'	ER	2837	2825		13															
38	A62	OP	4404	4404		4400	43	85	15,600	14,618	34,488	6,618,432	6,474,228	12,239,672	895,970	1,164,641	126	8	D		
	9°88'	ER	2786	2772		0															
7	D09	OP	4404	4404		4400	32	85	15,600	3,019	6,951	1,297,953	1,305,180	2,053,144	55,877	37,863	31	2	D		
	20°44'	ER	578	570		23															
38	A49	OP	4404	4404		4400	50	75	15,600	14,896	26,522	6,730,446	6,781,299	11,022,934	876,878	912,482	111	13	D		
	6°81'	ER	2828	2836		2															
49	A65	OP	4404	4404		4400	52	85	15,600	14,523	30,663	5,876,772	5,921,188	9,947,526	678,738	775,454	108	12	D		
	-1°37'	ER	2742	2780		198															
44	A65	OP	4404	4404		4400	48	85	15,600	14,723	36,149	7,878,726	7,910,922	11,188,806	1,851,612	1,837,980	138	34	D		
	9°58'	ER	2813	2785		24															
19	A02 A15	OP	4404	4404		4400	56	85	15,600	820	13,990	2,212,279	2,258,754	3,483,939	359,388	328,986	31	2	D		
	9°36'	ER	1564	1554		126															

REMARKS	MISSION DATA: Mission & Discoverer Nos	System Number	Date & Time: Launch	Date & Time: Recovery	Vehicle Type & Number	ORBITAL CHARACTERISTICS: Perigee Planned & Actual NM	Apogee Planned & Actual NM	Period Planned & Actual Min	Inclination Angle Planned & Actual	Eccentricity Planned & Actual	Vehicle Attitude	CAMERA DATA: Camera System	Camera Numbers: Master	Slave	S/I	Camera Operation: Master	Slave	Stellar	Index	Master Horizon Camera: Port	Starboard	Slave Horizon Camera: Port	Starboard
Capsule recovered on orbit 33. Orbit was erratic due to excessive boost by Agena. Agena D-Timer 4 seconds too long. No film used.	8002 LXIII	L-2	18 May 63 2222Z	21 May 63 1751Z	Agena D 1165	90	248	90.72	75.0°	.022		KH-6	5		53/4/3								
						86	282	91.2	74.6°	.0270													
Capsule recovered on orbit 65. Film from slave camera was seriously degraded by corona static. The master camera experienced minor light leaks.	9054 LXIV	M-21	12 Jun 63 2400Z	17 Jun 63 0255Z	Agena D 1161	113	240	91.0	82.6°	.018		C''' KH-4	112	113	D9	OP	OP	IMF	IMF	IMF	IMF	OP	OP
						109	241	90.84	82°	.0184						G	F	G	G	G	G	G	G
Capsule recovered on orbit 65. Film from master camera was seriously degraded by a light leak. The film from the slave camera was slightly degraded by this light leak. First attempted use of "P" camera. "P" door failed to eject.	9056 LXV	M-22	27 Jun 63 0038Z	1 Jul 63 0320Z	Agena D 1166	110	221	90.59	81.75°	.015		C''' KH-4	110	111	D11	OP	OP	IMF	IMF	CMF	OP	IMF	IMF
						111	225	90.67	81.6°	.0157						G	G	U	E		G	G	G
[redacted]	[redacted]															[redacted]							
Capsule recovered on orbit 64.	9057 LXVI	M-23	18 Jul 63 2400Z	23 Jul 63 0237Z	Agena D 1412	113	239	91.08	82.6°	.0175		C''' KH-4	120	121	D12	OP	OP	IMF	IMF	OP	OP	IMF	IMF
						115	214	90.48	82.85°	.0138						G	G	G	U	G	G	G	G
Capsule recovered on orbit 32. Total camera malfunction occurred on orbit 23. Photo quality was degraded after orbit 9 due to loose lens element or temperature variance.	8003 LXVII	L-3	30 Jul 63 2400Z	2 Aug 63 0232Z	Agena D 1167	93	247	90.72	75.0°	.0229		KH-6	1		54/3/4	OP/CMF		IMF	IMF				
						92	256	90.75	75.0°	.0226						F		G	F				
Capsule recovered on orbit 64. First use of "J" system (double load KH-4). Master port horizon camera shutter remained open seriously fogging more than 1000 master pan frames.	1001-1 LXVIII	J1A	25 Aug 63 0030Z	29 Aug 63 0318Z	Agena D 1162	100	266	90.7	75.0°	.019		C''' KH-4	114	115	D14/ 15/14	OP	OP	IMF	IMF	IMF	OP	OP	OP
						99.2	235	90.67	75.0°	.0196						F	G	F	F	G	G	F	G
Tried to recover capsule after dormant period of 12 days. 400 cycle inverter on Agena failed. Temperature sensors indicate vehicle ran hot.	1001-2	J1B	25 Aug 63 0030Z	No Recovery	Agena D 1162	100	266	90.7	75.0°	.019		C''' KH-4	114	115	D16/ 16/16								
						99.2	235	90.67	75.0°	.0196													
Capsule recovered on orbit 65.	9058A LXX	A-11	29 Aug 63 2032Z	2 Sep 63 2330Z	Agena D 1169	162	165	90.5	82.0°	.0004		A KH-5	11			OP							
						164	178	90.81	81.9°	.002													
[redacted]	[redacted]					[redacted]						[redacted]				[redacted]							
Capsule recovered on orbit 49. 80% of Master film is seriously degraded by light leaks. Slave film is also slightly affected.	1002-1 LXIX	J2A	23 Sep 63 2300Z	27 Sep 63 0134Z	Agena D 1163	100	248	90.9	81.8°	.0225		C''' KH-4	116	117	D18 17/18	OP	OP	IMF	IMF	OP	CMF	OP	OP
						100.85	236.92	90.65	74.95°	.0189						P	G	G	F	G		G	G

HISTORY

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ARGON CORONA [redacted] LANYARD

FILM DATA											MISSION COVERAGE STATISTICS								MISCELLANEOUS		REMARKS
NUMBER OF PHOTO PASSES	MINIMUM SUN ANGLE	DATA BLOCK	TOTAL NUMBER OF FRAMES				PERCENT OF OVERALL CLOUD COVER	MIF	TOTAL FILM AVAILABLE FT.	TOTAL FILM EXPENDED FT.	LINEAR GROUND COVERAGE NM	PLOTTABLE COVERAGE, SQUARE NM					NUMBER OF CONUS TARGETS PRIORITY 1 & 2	BONUS TARGETS CAT 3 OR BETTER	TYPE OF RECOVERY	ADDITIONAL PAYLOADS	
			MASTER	SLAVE	S	I						MASTER	SLAVE	USSR	CHINA	OTHER SOVIET BLOC					
			4484		4400 & 4401				8,000										W	[redacted]	
			loader																		
38		OP	4404	4404	4400 & 4401	4400	54	80	15,600	14,438	22,059	4,235,038	4,465,688	7,322,248	357,390	469,911	182	3	D		
		ER	2776	2712	351	351															
36	A56	IMF	4484	4404	4400 & 4401	4400	55	85	15,600	14,512	22,623	4,201,862	4,290,715	6,643,471	873,386	357,838	205	3	D		
	0°20°	ER	2756	2762	428	428															
[redacted]																					
33	A40	OP	4404	4404	4400 & 4401	4400	57	85	15,600	14,810	26,692	4,879,076	4,166,343	6,110,876	1,030,456	391,375	177	2	D		
	-4°	ER	2839	2792	429	429															
20	A09	OP	4404		4400		55		6,000		3,758	142,926		104,483	11,656	5,910	18	2	D	[redacted]	
	4°	ER	908		1377	3															
40	A11 A56	OP	4404	4404	4401	4400	56	80	16,000	14,908	26,264	4,060,525	4,213,454	6,627,217	971,580	298,070	151	4	D		
	-1°	ER	2839	2839	401	401															
			4404	4404	4401	4400			16,000												
65			4400				65		4,300	4,300									D		
	-1°		7393																		
[redacted]			[redacted]																		
32	A31	OP	4484	4404	4401	4400	49.6	80	16,000	15,158	22,186	3,216,060	3,209,370	4,575,852	954,230	545,490	134	3	D		
	-10°	ER	2848	2916	363	363															

*Rough estimate.

TOP SECRET RUFF

ARGON CORONA [redacted] LANYARD

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REMARKS	MISSION DATA: Mission & Discoverer Nos	System Number	Date & Time: Launch	Date & Time: Recovery	Vehicle Type & Number
Tried to recover capsule on orbit 165, but commands failed. Agena decoder failed. Cassette puck arm malajustment caused master instrument failure.	1002-2 LXIX	J2B	23 Sep 63 2300Z	No Recovery	Agena D 1163
[redacted]	[redacted]				
Capsule recovered on orbit 80.	9059A LXXI	A-6	29 Oct 63 2128Z	4 Nov 63 0839Z	Agena D 1601
Agena failed to ignite.	9060 LXXII	M-24	9 Nov 63 2028Z	No Orbit	Agena D 1171
Capsule separated from Agena, but remained in orbit.	9061 LXXIII	M-25	27 Nov 63 2116Z	No Recovery	Agena D 1172
[redacted]	[redacted]				
Capsule recovered on orbit 81.	9062	M-26	21 Dec 63 2146Z	26 Dec 63 2342Z	Agena D 1168
Capsule recovered on orbit 49.	1004-1	J-5A	15 Feb 64 2130Z	19 Feb 64 0025Z	Agena D 1174
Capsule recovered on orbit 112.	1004-2	J-5B	15 Feb 64 2130Z	22 Feb 64 2346Z	Agena D 1174
[redacted]	[redacted]				

ORBITAL CHARACTERISTICS

Mission No.	Perigee Planned & Actual NM	Apogee Planned & Actual NM	Period Planned & Actual Min	Inclination Angle Planned & Actual	Eccentricity Planned & Actual	Vehicle Attitude
1002-2 LXIX	100	248	90.9	81.0°	.0225	
	100.05	236.92	90.65	74.95°	.0189	
[redacted]	[redacted]					
9059A LXXI	156	189	90.916	90.0°	.00461	
	155.87	190.15	90.91	89.91°	.0047	
9060 LXXII	100	236	90.70	75°	.019	
9061 LXXIII	100	211.6	90.21	70°	.0155	
	99	206	90.12	70°	.015	
[redacted]	[redacted]					
9062	100	215	90.04	65°	.0144	
	99.80	201.27	89.99	64.87°	.01417	
1004-1	100	236	90.7	75°	.019	
	101	247	90.9	75°	.02029	
1004-2	100	236	90.7	75°	.019	
	102.38	245.51	90.78	75.06°	.0190	
[redacted]	[redacted]					

CAMERA DATA

Mission No.	Camera System	Camera Numbers: Master	Camera Numbers: Slave	Camera Numbers: S/I	Camera Operation: Master	Slave	Stellar	Index	Master Horizon Camera: Port	Master Horizon Camera: Starboard	Slave Horizon Camera: Port	Slave Horizon Camera: Starboard
1002-2 LXIX	C''' KH-4	116	117	D13/ 14/13								
[redacted]	[redacted]				[redacted]							
9059A LXXI	A KH-5	6										
9060 LXXII	C''' KH-4	128	129	027								
9061 LXXIII	C''' KH-4	134	135	026								
[redacted]	[redacted]				[redacted]							
9062	C''' KH-4	130	131	D34 34/31	OP	OP	OP	OP	OP	OP	OP	OP
					G	G	F	E	E	E	E	E
1004-1	C''' KH-4	124	125	D29 29/29	OP	OP	OP	OP	OP	OP	OP	O
					G	G	F	E	E	E	E	E
1004-2	C''' KH-4	124	125	D42 42/37	OP	OP	IMF	IMF	IMF	IMF	OP	OP
					G	G	F	E	E	E	E	E
[redacted]	[redacted]				[redacted]							

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ARGON CORONA [redacted] LANYARD

FILM DATA											MISSION COVERAGE STATISTICS								MISCELLANEOUS		REMARKS
NUMBER OF PHOTO PASSES	MINIMUM SUN ANGLE	DATA BLOCK	TOTAL NUMBER OF FRAMES: MASTER	SLAVE	S	I	PERCENT OF OVERALL CLOUD COVER	MIP	TOTAL FILM AVAILABLE FT.	TOTAL FILM EXPENDED FT.	LINEAR GROUND COVERAGE NM	PLOTTABLE COVERAGE, SQUARE NM: MASTER	SLAVE	USSR	CHINA	OTHER SOVIET BLOC	NUMBER OF COMOR TARGETS PRIORITY 1 & 2	BONUS TARGETS CAT 3 OR BETTER	TYPE OF RECOVERY	ADDITIONAL PAYLOADS	
			4404																		
[redacted]	[redacted]		[redacted]				[redacted]			[redacted]											
80			4400 / 7282				65		4,300	4,300									D	[redacted]	
																				[redacted]	
[redacted]			[redacted]							[redacted]									[redacted]		
41	D71 / 0°08'	OP	4404 / 2884	4404 / 2850	4401 / 412	4400 / 416	40.3	85	15,680	15,680	22,811	3,187,790	3,182,819	4,997,765	435,161	242,300	147	2	D	[redacted]	
33	D33 / -5°	OP	4404 / 2880	4404 / 2850	4401 / 405	4400 / 413	30.7	85	15,210	15,210	23,127	3,517,985	3,819,242	6,355,364	477,492	122,567	135	2	D		
36	D66 / -5°	OP	4404 / 2909	4404 / 2949	4401 / 386	4400 / 425	32.5	85	15,564	15,564	22,337	3,010,002	3,336,629	4,223,865	1,031,552	185,434	289	2	D		
[redacted]		[redacted]	[redacted]						[redacted]		[redacted]										

~~TOP SECRET RUFF~~
ARGON CORONA [redacted] LANYARD

[redacted] ...tems.

Handle Via [redacted] ...ENT
KEYHOLE Control System

~~TOP SECRET RUFF~~

ARGON CORONA [redacted] ANYARD

[redacted]

LAUNCH

REMARKS	MISSION DATA: MISSION & DISCOVERER NOS	SYSTEM NUMBER	DATE: LAUNCH	TIME: RECOVERY	VEHICLE TYPE & NUMBER	ORBITAL CHARACTERISTICS: PERIGEE PLANNED & ACTUAL NM	APOGEE PLANNED & ACTUAL NM	PERIOD PLANNED & ACTUAL MIN	INCLINATION ANGLE PLANNED & ACTUAL	ECCENTRICITY PLANNED & ACTUAL	VEHICLE ATTITUDE	CAMERA DATA: CAMERA SYSTEM	CAMERA NUMBERS: MASTER	SLAVE	SR	CAMERA OPERATION: MASTER	SLAVE	STELLAR	INDEX	MASTER HORIZON CAMERA: PORT	MASTER HORIZON CAMERA: STARBOARD	SLAVE HORIZON CAMERA: PORT	SLAVE HORIZON CAMERA: STARBOARD
[redacted]																							
Guidance system failed; vehicle impacted in ocean, down range, shortly after launch.	1083	J-06	24 Mar 64 2223Z	No Orbit	Agena D 1175							C [redacted] KH-4											
[redacted]																							
Launch successful - orbit good. Recovery attempted 30 April on orbit 49 with negative results. Recovery attempts on 1 May and on 2 May also failed.	1005	J-08	27 Apr 64 2300Z	Not Recovered	Agena D 1604	100 99.33	246 250.45	90.87 90.79	88 79.93	0.0289 0.0289		C [redacted] KH-4	146	147	D/28/29/30	OP [redacted]	OP [redacted]						
[redacted]																							
Recovered on orbit 65. Slave camera door failed to jettison before pass D03. The binary, camera number, horizon cameras and horizon fiducials of the slave camera were inoperative between frame 9, pass D01 and frame 18, pass D03.	1006-1	J-09	4 Jun 64 2259Z	9 Jun 64 0139Z	Agena D 1176	100 86.32	246 253.85	90.87 90.50	88 79.95	0.0209 0.0232		C [redacted] KH-4	148	149	D/49/53/62	OP G	OP G	IMF G	OP G	OP G	OP F	IMF G	IMF F
Recovered on orbit 128. Master camera auxiliary equipment operation was erratic from pass D103 through end of mission.	1006-2	J-09	4 Jun 64 2259Z	3 Jun 64 0025Z	Agena D 1176	100 86.62	246 247.71	90.87 90.37	80 79.96	0.0209 0.0223		C [redacted] KH-4	148	149	D/45/47/45	OP G	OP G	IMF G	IMF G	IMF G'P	IMF G'P	OP G	OP G
Recovered on orbit 98.	9065A		13 Jun 64 1542Z	3 Jun 64 1900Z	Agena D 1606	199 199.8	205 203.5	91.08 91.68	115 115	.00052 .00052		KH-5	21			OP G		OP G					
Recovered on orbit 65. An experiment was performed utilizing a Wratten 25 filter on the master camera and a Wratten 21 on the slave unit.	1007-1	J-07	19 Jun 64 2317Z	4 Jun 64 0225Z	Agena D 1609	100 100.56	236 258.24	91.05 90.95	85 84.99	0.019 0.02193		C [redacted] KH-4	144	145	D/43/63	OP G	OP G	OP F	OP G	OP G	OP G	OP G	OP G
Recovered on orbit 128. Several multi-exposures occurred in the stellar and index cameras.	1007-2	J-07	19 Jun 64 2317Z	8 Jun 64 0150Z	Agena D 1609	100 101.54	236 257.74	91.05 90.89	85 84.99	0.019 0.02161		C [redacted] KH-4	144	145	D/54/56/51	OP G	OP G	IMF P	IMF P/G	OP G	OP G	OP G	OP G
[redacted]																							

[redacted] SECRET

KEYHOLE Channels Jointly

[redacted] LANYARD

FILM DATA											MISSION COVERAGE STATISTICS								MISCELLANEOUS		REMARKS
NUMBER OF PHOTO PASSES	MINIMUM SUN ANGLE	DATA BLOCK	TOTAL NUMBER OF FRAMES: MASTER	SLAVE	S	I	PER-CENT OF OVERALL CLOUD COVER	MIP	TOTAL FILM AVAIL-ABLE FT.	TOTAL FILM EXPEND FT.	LINEAR GROUND COVERAGE NM	PLOTTABLE COVERAGE: MASTER	SLAVE	USSR	SQUARE NM: CHINA	OTHER SOVIET BLOC	NUMBER OF COMOR TARGETS PRIORITY 1 & 2	BONUS TARGETS CAT 2 OR BETTER	TYPE OF RECOV-ERY	ADDIT-IONAL PAY-LOADS	
[redacted]																					
[redacted]																					
27	25°	OP	4404 2883	4404 2847	4401 412	4400 392	Approx. 50	90	31,689	15,805	34,774 ~~19,737~~	2,288,261	2,381,220	2,181,661	1,785,168	122,460	58	4	D		
27	36°	IMF	4404 2971	4404 3021	4401 279	4400 279	Approx. 45	90	15,884	15,884	44,467 ~~21,766~~	3,044,726	3,136,388	3,361,988	1,807,996	189,032	57	2	D		
96	-3.6°	OP	4400 7185		4400 7185				4,401	4,401									D	[redacted]	
24	35°	OP	4404 2737	4404 2714	4401 392	4400 392	Approx. 60	85	31,725	15,077	45,165 ~~22,615~~	3,056,447 ~~3,001,767~~	3,035,243 ~~3,006,483~~	3,644,629	783,849	262,146	140	9	D		
26	30°	OP	4404 3126	4404 3083	4401 428	4400 428	Approx. 65	85	16,648	16,648	45,427 23,577	3,124,626 ~~3,161,086~~	2,923,869 ~~2,782,049~~	3,577,303	374,332	396,538	122	2	D		
[redacted]																					