APPENDIX 5 ---- QUALITY CONTROL OF AERIAL PHOTOGRAPHY

QUALITY CONTROL SHEET

of Aerial Photogrphy

No. 1-8

Project	ISSYK-KUL ZONE K R	Aircraft	An-30	No #30038			
Designtion		Camera	TAFA-10	No. #30591212	Length of Film	55;22	
Date of Flight		Lens	100,674	No #3011	GPS Diskett No.		

Judgement		Line	Flight	Exposure No	Number of	O.L. %		S.L. %		Quality of Films			
OK	NG	No.	Direction	0000~0000	Photographs	Max	Min	Max	Min	Clouds	Smokes	Haze	Roll No
7/12		30	E-W	1A-12A	12		65		50	small			7
7/12		29A	W-E	1A-32A	32		60		40	small			7
7/12		29B	W-E	1B-18B	18		60		50				7
7/12		28A	W-E	1A-16A	16		60		30	small			7
7/12		28B	E-W	1B-51B	51		60		45				7
7/11		27A	W-E	1A-28A	28		60		40	small			4
7/12		27B	W-E	1B-43B	43		60		40				7
7/11		26A	E-W	1A-41A	41		60		40	small			4
7/12		26B	E-W	1B-46B	46		60		30				7
7/11		25A	W-E	1A-43A	43		60		40				4
7/12		25B	W-E	1B-57B	57		60		25				5
7/11		24A	E-W	1A-37A	37		60		35	small			4
7/12		24B	E-W	1B-65B	65		60		40				6

Remarks : Contractor	Remarks : AERO ASAHI Representation			
		Contractor	Company	KAZAVIASPAS
			Checked on	
			Checked by	
		AERO ASAHI	Inspected on	31.8.2004
		CORPORATION	Inspected by	yasuhiko TSUKAMOTO

QUALITY CONTROL SHEET

Project	ISSYK-KUL ZONE K R		Aircraft	An-30	No #30038			
Designtion			Camera	TAFA-10	No. #30591212	Length of Film	55;22	
Date of Flight			Lens	100,674	No #3011	GPS Diskett No.		

Judgement		Line	Flight	Exposure No	Number of	O.L. %		S.L. %		Quality of Films			
OK	NG	No.	Direction	0000~0000	Photographs	Max	Min	Max	Min	Clouds	Smokes	Haze	Roll No
7/11		23-A	W-E	1A-35A	35		60		30	small 29A,30A			4
7/10		23-B	E-W	1B-77B	77		60	filmaccident10B~25B, 7/27 RF L23E					5,2
7/12		23-C	E-W	1C-14C	14		63		20				5
7/11		22-A	E-W	1A-33A	33		58		15				4
7/11		22-B	W-E	1B-28B	28		60		40				5
7/10		22-C	E-W	1C-39C	39		63		38				3
7/11		21-A	W-E	1A-22A	22		63		25				4
7/10		21-B	W-E	1B-34B	34		63		20				2
7/10		21-C	W-E	1C-39C	39		63		30				3
7/11		20-A	E-W	1A-31A	31		60		30				4,5
7/10		20-B	E-W	1B-26B	26		63		35				2
7/10		20-C	W-E	1C-29C	29		63		35				2
7/12		20-D	W-E	1D-15D	15		60		25				5

Remarks : Contractor	Remarks : AERO ASAHI Representation			
		Contractor	Company	KAZAVIASPAS
			Checked on	
			Checked by	
		AERO ASAHI	Inspected on	31.8.2004
		CORPORATION	Inspected by	yasuhiko TSUKAMOTO

QUALITY CONTROL SHEET

Project	ISSYK-KUL ZONE K R		Aircraft	An-30	No #30038		
Designtion			Camera	TAFA-10	No. #30591212	Length of Film	55;22
Date of Flight			Lens	100,674	No #3011	GPS Diskett No.	

Judgement		Line	Flight	Exposure No	Number of	O.L. %		S.L. %		Quality of Films			
OK	NG	No.		0000~0000	Photographs	Max	Min	Max	Min	Clouds	Smokes	Haze	Roll No
7/11		19A	W-E	1A-21A	21		60		40				5
7/10		19B	W-E	1B-25B	25		63		35				2
7/10		19C	E-W	1C-29C	29		63		42				2
7/12		19D	E-W	1D-16D	16		60		10				5
7/11		18A	E-W	1A-17A	17		62		35				5
7/10		18B	E-W	1B-32B	32		62		35	small 6B,7B			2
7/10		18C	W-E	1C-31C	31		62		35				2
7/14		18D	E-W	1D-20	20		55		25				14
7/7		17A	W-E	1A-25A	25		63		40				1
7/7		17B	W-E	1B-19B	19		63		40				1
7/10		17C	E-W	1C-30C	30		63		40				2
8/14		17D	W-E	1D-16D	16		63		35				14

Remarks : Contractor	Remarks : AERO ASAHI Representation			
		Contractor	Company	KAZAVIASPAS
			Checked on	
			Checked by	
		AERO ASAHI	Inspected on	31.8.2004
		CORPORATION	Inspected by	yasuhiko TSUKAMOTO

QUALITY CONTROL SHEET

No 4-8.

Project	ISSYK-KUL ZONE K R			Aircraft	An-30		No #30038						
Designtion				Camera	TAFA-10		No. #30591212		Length of Film		55;22		
Date of Flight				Lens	100,674		No #3011		GPS Diskett No.				
Judgement		Line	Flight	Exposure No	Number of	O.L. %		S.L. %		Quality of Films			
OK	NG	No.	Direction	0000~0000	Photographs	Max	Min	Max	Min	Clouds	Smokes	Haze	Roll No
7/7		16A	E-W	1A-32A	32		60		40(5)	small			1
7/10		16C	W-E	1C-24C	24		62		28				2
8/13		16D	W-E	1D-23D	23		63		35	small			13
7/7		15A	W-E	1A-16A	16		62		20				1
7/7		15B	E-W	1B-12B	12		63		35				1
7/13		15C	E-W	1C-31C	31		60		25				8
8/12		15D	W-E	1D-23D	23		60		30	small			13
7/7		14A	E-W	1A-19A	19		60		30				1
7/7		14B	W-E	1B13B	13		60		20				1
7/31		14C	E-W	1C-28C	28		60		20				12
8/12		14D	E-W	1D-23D	23		60		20				13

Remarks : Contractor	Remarks : AERO ASAHI Representation			
		Contractor	Company	KAZAVIASPAS
			Checked on	
			Checked by	
		AERO ASAHI	Inspected on	31.8.2004
		CORPORATION	Inspected by	yasuhiko TSUKAMOTO

QUALITY CONTROL SHEET

No 5-8.

Project	ISSYK-KUL ZONE K R		Aircraft	An-30		No #30038						
Designtion			Camera	TAFA-10		No. #30591212		Length of Film		55;22		
Date of Flight			Lens	100,674		No #3011		GPS Diskett No.				
Judgement		Line	Flight	Exposure No	Number of	O.L. %		S.L. %		Quality of Films		
OK	NG	No.	Direction	0000~0000	Photographs	Max	Min	Max	Min	Clouds	Smokes	Haze	Roll No
7/7		13A	W-E	1A-16A	16		60		30				1
7/7		13B	E-W	1B-15B	15		60		30				1
7/31		13C	W-E	1C-13C	13		60		25				12
8/12		13D	E-W	1D-25D	25		60		30				12
7/7		12A	E-W	1A-13A	13		60		25				1
7/7		12B	W-E	1B-21B	21		60		38				1
7/13		12C	W-E	1C-28C	28		60		45	24C,25C, 8/12 RF L12E			8
7/31		12D	E-W	1D-18D	18		60		45				11
7/7		11A	W-E	1A-29A	29		63		43				1
8/6		11B	W-E	1B-17B	17		63		50				12
7/31		11C	W-E	1C-22C	17		63		*				11
7/7		10A	E-W	1A-38A	38		58		42				1
8/6		10B	E-W	1B-18B	18		60		45	17B,18B, 8/13 RF L10C			12

Remarks : Contractor	Remarks AEROASAH IRepresentation		
		Contractor	Company KAZAVIASPAS
			Checked on
			Checked by
		AERO ASAHI	Inspected on 31.8.2004
		CORPORATION	Inspected by yasuhiko TSUKAMOTO

QUALITY CONTROL SHEET

No 6-8.

Project	ISSYK-KUL ZONE K R		Aircraft	An-30	No #30038		
Designtion			Camera	TAFA-10	No. #30591212	Length of Film	55;22
Date of Flight			Lens	100,674	No #3011	GPS Diskett No.	

Judgement		Line	Flight	Exposure No	Number of	O.L. %		S.L. %		Quality of Films			
OK	NG	No.	Direction	0000~0000	Photographs	Max	Min	Max	Min	Clouds	Smokes	Haze	Roll No
7/10		9A	E-W	1A-38A	38		60		40				3
7/13		9B	W-E	1B-11B	11		60		45				9
8/13		9C	W-E	1C-24C	24		62		40				13
7/10		8A	W-E	1A-21A	21		60		30				3
7/10		8B	W-E	1B-31B	31		63		40	small (26B), 8/13 RF L8D			3
7/27		8C	E-W	1C-19C	19		60		40				10
7/27		8D	E-W	1D-26D	26		60		40				13
7/10		7A	E-W	1A-29A	29		63		25				3
7/10		7B	W-E	1B-47B	47		63		44				3
7/27		7C	W-E	1C-19C	19		60		20	small	8/13 RF L8E		10
7/13		7D	E-W	1D-20D	20		60		45	small(18~20), 7/31 RF L7F			8
7/11		6A	W－E	1A－26A	26		60		*				5
7/13		6B	E-W	1B－50B	50		60		40				9

Remarks : Contractor	Remarks : AERO ASAHI Representation			
		Contractor	Company	KAZAVIASPAS
			Checked on	
			Checked by	
		AERO ASAHI	Inspected on	31.8.2004
		CORPORATION	Inspected by	yasuhiko TSUKAMOTO

QUALITY CONTROL SHEET

No 7-8.

Project	ISSYK-KUL ZONE K R		Aircraft	An-30	No #30038			
Designtion			Camera	TAFA-10	No. #30591212	Length of Film	55;22	
Date of Flight			Lens	100,674	No #3011	GPS Diskett No.		

Judgement		Line	Flight	Exposure No	Number of	O.L. %		S.L. %		Quality of Films			
OK	NG	No.	Direction	0000~0000	Photographs	Max	Min	Max	Min	Clouds	Smokes	Haze	Roll No
8/14		6C	W-E	1C-24C	24		60		40				3
7/31		6E	W-E	1E-16E	16		60		*	L6D NG, L6E 1E-16E(adopt)			11
7/13		5A	W-E	1A－50A	50		60		20				9
8/14		5B	E-W	1B-17B	17		60		40				3
7/27		4A	E-W	1A-38A	38		60		47				10
8/14		4B	E-W	1B-25B	25		60		45				2
8/13		4C	E-W	1C-18C	18		60		40				13
8/14		3A	W-E	1A-37A	37		60		35				3
7/13		3B	W-E	1B－20B	19		60		45	16B,17B, 3/31 RF L3 1C-12C			8
8/14		2A	E-W	1A-43A	43		60		45				3
7/13		2B	E-W	1B-22B	22		60		45	19B~22B, 7/31 RF L2C			8
8/14		1A	W-E	1A-33A	33		60		*				3
7/13		1B	W-E	1B-33B	33		60		*	22B~33B, 7/31 RF L1C			8

Remarks : Contractor	Remarks : AERO ASAHI Representation			
		Contractor	Company	KAZAVIASPAS
			Checked on	
			Checked by	
		AERO ASAHI	Inspected on	31.8.2004
		CORPORATION	Inspected by	yasuhiko TSUKAMOTO

QUALITY CONTROL SHEET

(RE- FLIGHT)

No 8-8.

Project	ISSYK-KUL ZONE K R		Aircraft	An-30		No #30038							
Designtion			Camera	TAFA-10		No. #30591212		Length of Film		55;22			
Date of Flight			Lens	100,674		No #3011		GPS Diskett No.					
Judgement		Line	Flight	Exposure No	Number of	O.L. %		S.L. %		Quality of Films			
						60以上			20~40				
		No.	Direction	0000~0000	Photographs	Max	Min	Max	Min	Clouds	Smokes	Haze	Roll No
not for use		29C		1C-23C	23		Covering clouds of 29A by L28&L30						13
not for use		27C		1C－14C	14		L28, covering with SL						13
27 July	for use	23E		1E-27E	27		Covering L23B						10
14 Aug	for use	13E		1E-22E	22		Covering L22C						14
12 Aug	for use	12E		1E-22E	22		Covering L15C						12
13 Aug	for use	10C		1C-24C	24		Covering L10B						13
14 Aug	for use	10D		1D-18D	18		Covering L12B						14
13 Aug	for use	8D		1D-26D	26		Covering L8B-26B						13
13 Aug	for use	7E		1E-13E	13		Covering L7C						13
13 Aug	for use	7F		1f=14F	14		Covering L7D						11
not for use		6D		1D-15D	15		L6Eを採用						8
13 July	for use	3C		1C-12C	12		Covering L3B						11
13 July	for use	2C		1C-15C	15		Covering L2B						11
13 July	for use	1C		1C-24C	24		Covering L1B						11

Remarks : Contractor	RF=269	Company	KAZAVIASPAS
		Contractor	Checked on	
			Checked by	
		AERO ASAHI	Inspected on	31.8.2004
		CORPORATION	Inspected by	yasuhiko TSUKAMOTO

APPENDIX 6 ---- QUALITY CONTROL OF GPS SURVEY

GCP-GPS Quality Control

(Session 194)

SESSION No	Closer		Limit (45mm×√N)	Base Line (B)	Ave. - (B)	Remarks
		m	m		m	
	ΔX=	0.010	0.077			
	ΔY=	-0.001	0.077	**(1a –1)**		
	ΔZ=	-0.021	0.077			
194-11	ΔS=	0.023		30583.312	0.005	**09-646500**
	ΔX=	0.016	0.077			
	ΔY=	0.014	0.077			
	ΔZ=	-0.008	0.077			
194-21	ΔS=	0.023		30583.309	0.008	**04-646500**
	ΔX=	-0.014	0.077			
	ΔY=	0.012	0.077			
	ΔZ=	-0.018	0.077			
194-31	ΔS=	0.026		30583.330	-0.013	**02-540000**
			(1a –1) Ave	30583.317		

(Session 195)

SESSION No	Closer		Limit (45mm×√N)	Base Line (B)	Ave. - (B)	Remarks
		m	m	m	m	
	ΔX=	0.017	0.077	**(1a –1)**		
	ΔY=	0.019	0.077			
	ΔZ=	0.001	0.077			
195-11	ΔS=	0.025		30583.312	0.003	**PTR3 (AIGYRDJAL)**
	ΔX=	0.027	0.077			
	ΔY=	0.006	0.077			
	ΔZ=	-0.001	0.077			
195-12	ΔS=	0.028		30583.304	0.011	**10-650000**
	ΔX=	0.013	0.077			
	ΔY=	0.013	0.077			
	ΔZ=	0.002	0.077			**PTR12**
195-21	ΔS=	0.019		30583.316	-0.001	**(KARAGAILY)**
	ΔX=	0.013	0.077			
	ΔY=	0.013	0.077			
	ΔZ=	0.002	0.077			
195-22	ΔS=	0.019		30583.316	-0.001	**05-546400**
	ΔX=	0.001	0.077			
	ΔY=	0.018	0.077			
	ΔZ=	0.011	0.077			**PTR2**
195-31	ΔS=	0.021		30583.329	-0.014	**REPER 178**
	ΔX=	0.016	0.077			
	ΔY=	0.008	0.077			
	ΔZ=	0.003	0.077			
195-32	ΔS=	0.018		30583.315	0.000	**03-540000**
	ΔX=	0.008	0.077			
	ΔY=	-0.002	0.077			
	ΔZ=	-0.015	0.077			
195-33	ΔS=	0.017		30583.316	-0.001	**35-540000**
			(1a –1) Ave.	30583.315		

GCP-GPS Quality Control

(Session 196)

SESSION No	Closer		Limit (45mm×√N)	Base Line (B)	Ave. - (B)	Remarks
		m	m			
	ΔX=	0.015	0.077	**(1a –1)**		
	ΔY=	0.029	0.077			
	ΔZ=	0.017	0.077			
196-11	ΔS=	0.037		30583.318	0.002	**11-657500**
	ΔX=	0.007	0.077			
	ΔY=	0.033	0.077			
	ΔZ=	0.024	0.077			
196-21	ΔS=	0.041		30583.327	-0.007	**06-546465**
	ΔX=	-0.006	0.077			
	ΔY=	0.043	0.077			
	ΔZ=	0.028	0.077			
196-22	ΔS=	0.051		30583.338	-0.018	**BM 1 (8678 nrp)**
	ΔX=	0.041	0.077			
	ΔY=	0.046	0.077			
	ΔZ=	0.026	0.077			**PTR 1**
196-31	ΔS=	0.067		30583.296	0.024	**(BURULDAY)**
			(1a –1) Ave.	30583.320		

(Session 197)

SESSIONNo	Closer		Limit (45mm×√N)	Base Line (B)	Ave. - (B)	Remarks
		m	m			
	ΔX=	-0.010	0.077	**(1 –4)**		
	ΔY=	-0.010	0.077			
	ΔZ=	-0.008	0.077			**PTR 4**
197-11	ΔS=	0.016		110795.572	0.011	**(KARASALYK)**
	ΔX=	0.030	0.077			
	ΔY=	-0.007	0.077			
	ΔZ=	0.023	0.077			
197-12	ΔS=	0.039		110795.612	-0.029	**19-950000**
	ΔX=	-0.010	0.077			
	ΔY=	0.017	0.077			
	ΔZ=	-0.002	0.077			
197-21	ΔS=	0.020		110795.563	0.020	**20-950500**
	ΔX=	-0.015	0.077			
	ΔY=	0.010	0.077			
	ΔZ=	-0.055	0.077			**BM 2**
197-22	ΔS=	0.058		110795.554	0.029	**(5127 nrp)**
	ΔX=	0.014	0.077			
	ΔY=	-0.024	0.077			
	ΔZ=	-0.013	0.077			**PTR 5**
197-31	ΔS=	0.031		110795.598	-0.015	**(OROKKUR)**
	ΔX=	0.018	0.077			
	ΔY=	-0.016	0.077			
	ΔZ=	-0.002	0.077			
197-32	ΔS=	0.024		110795.600	-0.017	**16-759500**
			(1 –4) Ave.	110795.583		

GCP-GPS Quality Control
(Session 199)

SESSIONNo	Closer		Limit (45mm×√N)	Base Line (B)	Ave. - (B)	Remarks
		m	m			
	ΔX=	0.000	0.077	**(4 –3)**		
	ΔY=	-0.037	0.077			
	ΔZ=	-0.012	0.077			
199-11	ΔS=	0.039		76894.540	0.001	**24-041415**
	ΔX=	0.003	0.077			
	ΔY=	-0.025	0.077			
	ΔZ=	-0.019	0.077			**BM 3**
199-12	ΔS=	0.031		76894.548	-0.007	**(7903 nrp)**
	ΔX=	-0.005	0.077			
	ΔY=	-0.025	0.077			
	ΔZ=	-0.014	0.077			
199-21	ΔS=	0.029		76894.538	0.003	**26-040515**
	ΔX=	0.000	0.077			
	ΔY=	-0.037	0.077			
	ΔZ=	-0.012	0.077			
199-22	ΔS=	0.039		76894.540	0.001	**24-041500**
	ΔX=	-0.029	0.077			
	ΔY=	-0.020	0.077			
	ΔZ=	0.038	0.077			
199-31	ΔS=	-0.013		76894.533	0.008	**33-140000**
	ΔX=	0.000	0.077			
	ΔY=	-0.025	0.077			
	ΔZ=	-0.024	0.077			
199-32	ΔS=	0.035		76894.546	-0.005	**31-141500**
			(4 –3) Ave.	76894.541		

(Session 200)

SESSIONNo		Closer	Limit (45mm×√N)	Base Line (B)	Ave. - (B)	Remarks
		m	m			
	ΔX=	-0.015	0.077	**(4 –3)**		
	ΔY=	0.005	0.077			
	ΔZ=	0.006	0.077			
200-11	ΔS=	0.017		76894.526	0.016	**27-050000**
	ΔX=	-0.001	0.077			
	ΔY=	-0.012	0.077			
	ΔZ=	-0.015	0.077			**PTR 6**
200-12	ΔS=	0.019		76894.545	-0.003	**(DARHAN)**
	ΔX=	0.009	0.077			
	ΔY=	-0.017	0.077			
	ΔZ=	-0.017	0.077			
200-13	ΔS=	0.025		76894.553	-0.011	**23-040500**
	ΔX=	0.010	0.077			
	ΔY=	-0.007	0.077			
	ΔZ=	-0.003	0.077			
200-21	ΔS=	0.013		76894.551	-0.009	**32-150000**
	ΔX=	-0.008	0.077			
	ΔY=	-0.005	0.077			
	ΔZ=	-0.009	0.077			
200-22	ΔS=	0.013		76894.537	0.005	**29-141500**
			(4 –3) Ave.	76894.542		

GCP-GPS Quality Control

(Session 201)

SESSIONNo	Closer		Limit (45mm×√N)	Base Line (B)	Ave. - (B)	Remarks
		m	m			
	ΔX=	0.019	0.077	**(2 –3)**		
	ΔY=	0.042	0.077			
	ΔZ=	0.031	0.077			
201-11	ΔS=	0.055		65664.415	-0.028	**18-939404**
	ΔX=	-0.066	0.077			
	ΔY=	0.024	0.077			
	ΔZ=	0.012	0.077			**PTR 9**
201-12	ΔS=	0.071		65664.340	0.047	**(SHATY)**
	ΔX=	0.015	0.077			
	ΔY=	0.045	0.077			
	ΔZ=	0.033	0.077			
201-21	ΔS=	0.058		65664.411	-0.024	**30-140000**
			(2 –3) Ave.	65664.387		

(Session 202)

SESSIONNo	Closer		Limit (45mm×√N)	Base Line (B)	Ave. – (B)	Remarks
		m	m			
	ΔX=	0.005	0.077	**(2 –3)**		
	ΔY=	0.026	0.077			
	ΔZ=	0.023	0.077			
202-11	ΔS=	0.036		65664.407	0.000	**22-030414**
	ΔX=	0.010	0.077			
	ΔY=	0.037	0.077			
	ΔZ=	0.026	0.077			**PTR 8**
202-21	ΔS=	0.046		65664.407	0.000	**(SANTASH)**
			(2 –3) Ave.	65664.407		

(Session 203)

SESSIONNo	Closer		Limit (45mm×√N)	Base Line (B)	Ave. - (B)	Remarks
		m	m			
	ΔX=	0.008	0.077	**(2 –1a)**		
	ΔY=	0.006	0.077			
	ΔZ=	0.008	0.077			**BM4**
203-11	ΔS=	0.013		86312.200	-0.001	**(3862 nrp)**
	ΔX=	0.018	0.077			
	ΔY=	0.004	0.077			
	ΔZ=	0.011	0.077			
203-21	ΔS=	0.022		86312.190	0.009	**14-740000**
	ΔX=	-0.009	0.077			
	ΔY=	-0.018	0.077			
	ΔZ=	-0.014	0.077			**PTR 10**
203-22	ΔS=	0.025		86312.212	-0.013	**(DOLINKA)**
	ΔX=	0.014	0.077			
	ΔY=	0.002	0.077			
	ΔZ=	0.017	0.077			
203-31	ΔS=	0.022		86312.195	0.004	**15-749400**
			(2 –1a) Ave.	86312.199		

GCP-GPS Quality Control

(Session 204)

SESSION No	Closer		Limit (45mm×√N)	Base Line (B)	Ave. - (B)	Remarks (Points No)
		m	m			
	ΔX=	0.005	0.077	**(2 – 1a)**		
	ΔY=	-0.039	0.077			
	ΔZ=	-0.041	0.077			**PTR 11**
204-21	ΔS=	0.057		86312.192	0.010	**(DJAI)**
	ΔX=	-0.012	0.077			
	ΔY=	-0.012	0.077			
	ΔZ=	-0.029	0.077			
204-22	ΔS=	0.034		86312.213	-0.011	**07-647400**
			(2 – 1a) Ave.	86312.202		
		m	m			
	ΔX=	-0.002	0.077	**(2 – 4)**		
	ΔY=	-0.048	0.077			
	ΔZ=	-0.036	0.077			**PTR 11**
204-21	ΔS=	0.060		54535.361	-0.011	**(DJAI)**
	ΔX=	0.023	0.077			
	ΔY=	-0.019	0.077			
	ΔZ=	-0.035	0.077			
204-22	ΔS=	0.047		54535.339	0.011	**07-647400**
			(2 – 4) Ave.	54535.350		

(Session 205)

SESSION No	Closer		Limit (45mm×√N)	Base Line (B)	Ave. - (B)	Remarks (Points No)
		m	m			
	ΔX=	0.004	0.077	**(2 – 1a)**		
	ΔY=	0.036	0.077			
	ΔZ=	0.030	0.077			**PTR 7**
205-11	ΔS=	0.047		86312.210	0.000	**(KOKKIIANYN)**
	ΔX=	0.006	0.077			
	ΔY=	0.041	0.077			
	ΔZ=	0.031	0.077			
205-21	ΔS=	0.051		86312.209	0.001	**08-647475**
			(2 – 1a) Ave.	86312.210		
		m	m			
	ΔX=	-0.007	0.077	**(2 – 4)**		
	ΔY=	-0.037	0.077			
	ΔZ=	-0.014	0.077			**PTR 7**
205-11	ΔS=	0.040		54535.371	-0.009	**(KOKKIIANYN)**
	ΔX=	0.011	0.077			
	ΔY=	-0.010	0.077			
	ΔZ=	-0.011	0.077			
205-21	ΔS=	0.019		54535.353	0.009	**08-647475**
			(2 – 4) Ave.	54535.362		

GCP-GPS Quality Control
—— Checking Survey ——
(Sessions 208,209)

SESSION No	Closer		Limit (45mm×√N)	Base Line (B)	Ave. - (B)	Remarks (Points No)
		m	m			
	ΔX=	0.000	0.077	**(2 – 2a)**		
	ΔY=	0.003	0.077			
	ΔZ=	0.003	0.077			**BM4**
208-11	ΔS=	0.004		24027.524	0.004	**(3862 pp)**
	ΔX=	0.007	0.077			
	ΔY=	-0.003	0.077			
	ΔZ=	-0.002	0.077			**PTR 10**
208-21	ΔS=	0.008		24027.531	-0.003	**(DOLINKA)**
			(2 – 2a) Ave.	24027.528		
		m	m			
	ΔX=	0.011	0.077	**(2 – 1)**		
	ΔY=	-0.017	0.077			
	ΔZ=	-0.005	0.077			**BM 1**
209-21	ΔS=	0.021		114300.026	-0.001	**(8678 nrp)**
	ΔX=	0.012	0.077			
	ΔY=	-0.013	0.077			
	ΔZ=	-0.007	0.077			**PTR 1**
209-31	ΔS=	0.019		114300.024	0.001	**(BURULDAY)**
			(2 – 1) Ave.	114300.025		

ACCURACY CONTROL TABLE

GPS－Ⅰ **(Closure)**

PROJECT NAME	The Study on Integrated Development Plan of Issyk-kul Zon in THE KYRGYZ REPUBLIC						
WORKING DATE	12 July ～25 August 2004	TOTAL POINT	5	CHIEF OF PARTY	Mavlid Latypov	CHECKED BY	Masaji Koyama

Closure Error (Averaged Lines)

Loops/Sessions	Loop number	Loop distance (m)	Number of point	DX(m) (Closure Limit)	DY(m) (Closure Limit)	DZ(m) (Closure Limit)
2-4-1-2 (23,204,205 /22,197 /20,209)	1	279,630.959	3	0.008 (0.77)	-0.017 (0.77)	0.005 (0.77)
2-1-1a-2 (20,209/20,194,195,196/20,203,204,205)	2	231,195.560	3	-0.017 (0.77)	0.010 (0.77)	-0.009 (0.77)
4-2-1a-4 (23,204,205/20,203,204,305/204,205)	3	234,206.395	3	-0.010 (0.77)	0.002 (0.77)	0.011 (0.77)
1-2-3-1 (20,209/23,201,202/24)	4	354,755.577	3	-0.021 (0.77)	-0.026 (0.77)	-0.024 (0.77)
4-1-3-4 (22,197/24/22,199,200)	5	362,481.249	3	0.014 (0.77)	-0.005 (0.77)	0.009 (0.77)

Instrument number
Leica ①System500.No.667122 ②System500.No 0035626 ③ System500.No 0035635 ④ System500.No 0035638 ⑤ System500.No 0020436
Remarks
Limit of Loop ClosureXYZ:45mm$\sqrt{N}$(N: Line)

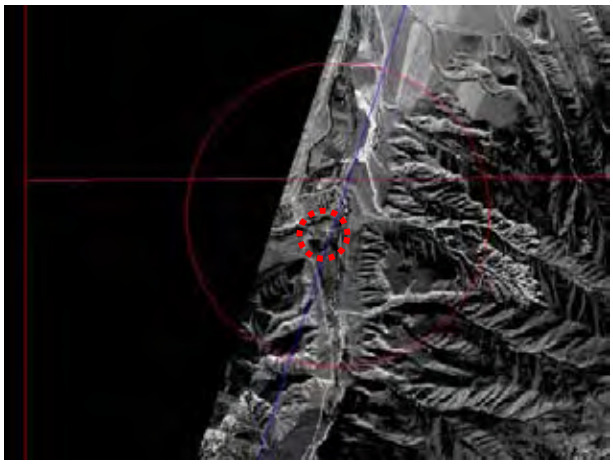
APPENDIX 7 ---- DESCRIPTION OF GCP

DESCRIPTION & RESULT OF GCP-GPS

August 2004

Description & Result
of
GCP-GPS

Point No.	B	L	surveyor	Roman Klimchenko
02-540000	42-39-33	75-02-56	Inspector	Masaji Koyama
Zone	X	Y		H
13				1300.09



Map No.k43-XVI

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0.0 1.0 2.0 3.0 4km

©CNES.2003

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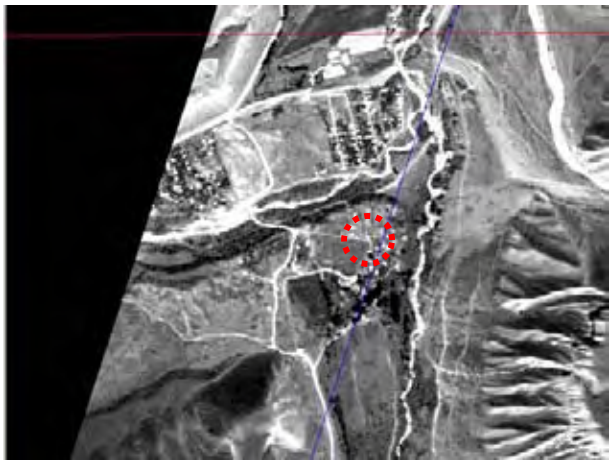
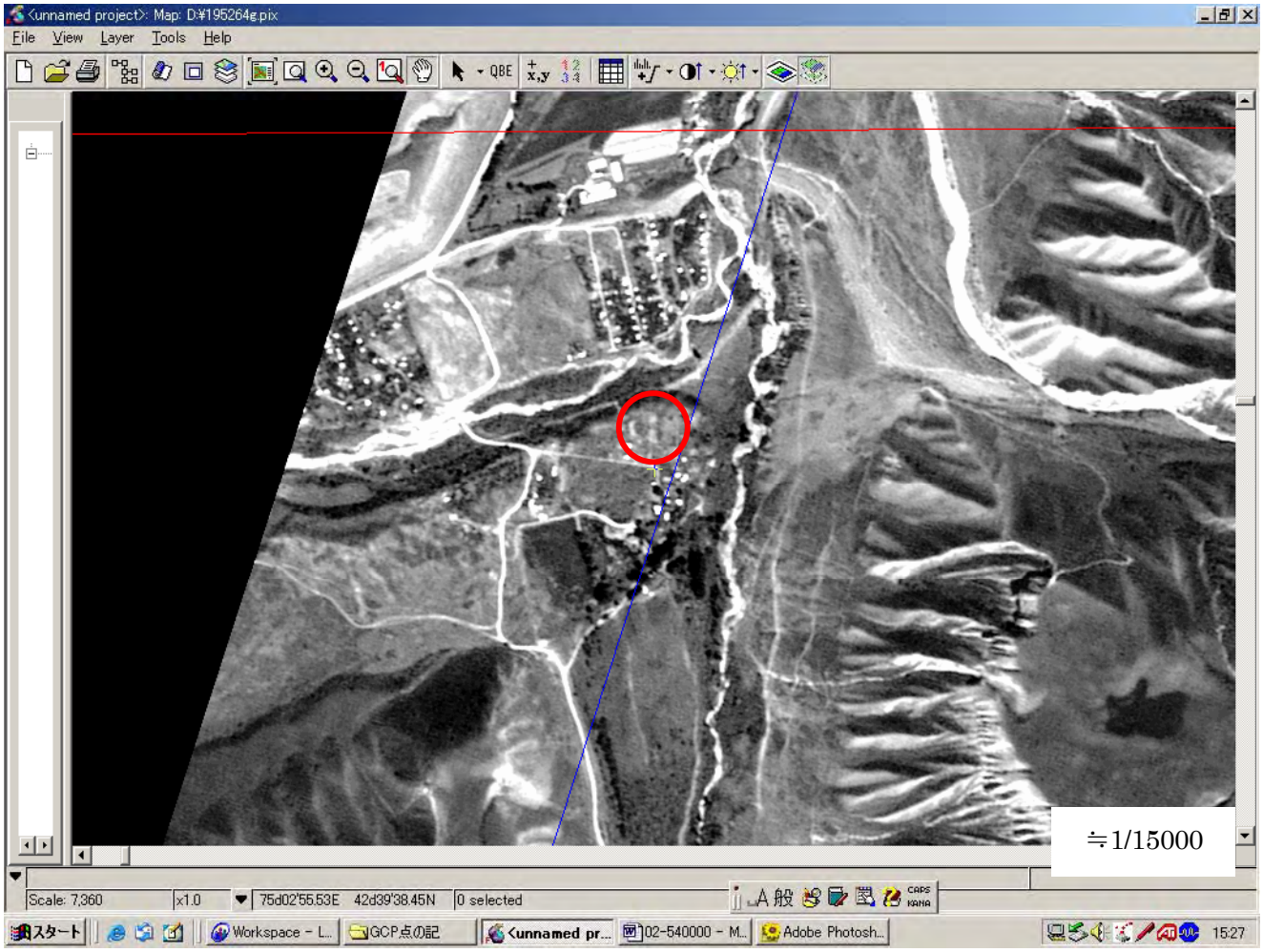
Date of Data Acquisition :
Column Line No. :
Off Nadia Angle :
Mode : Panchromatic



GCP Field Photo

©CNES.2003

1:25,000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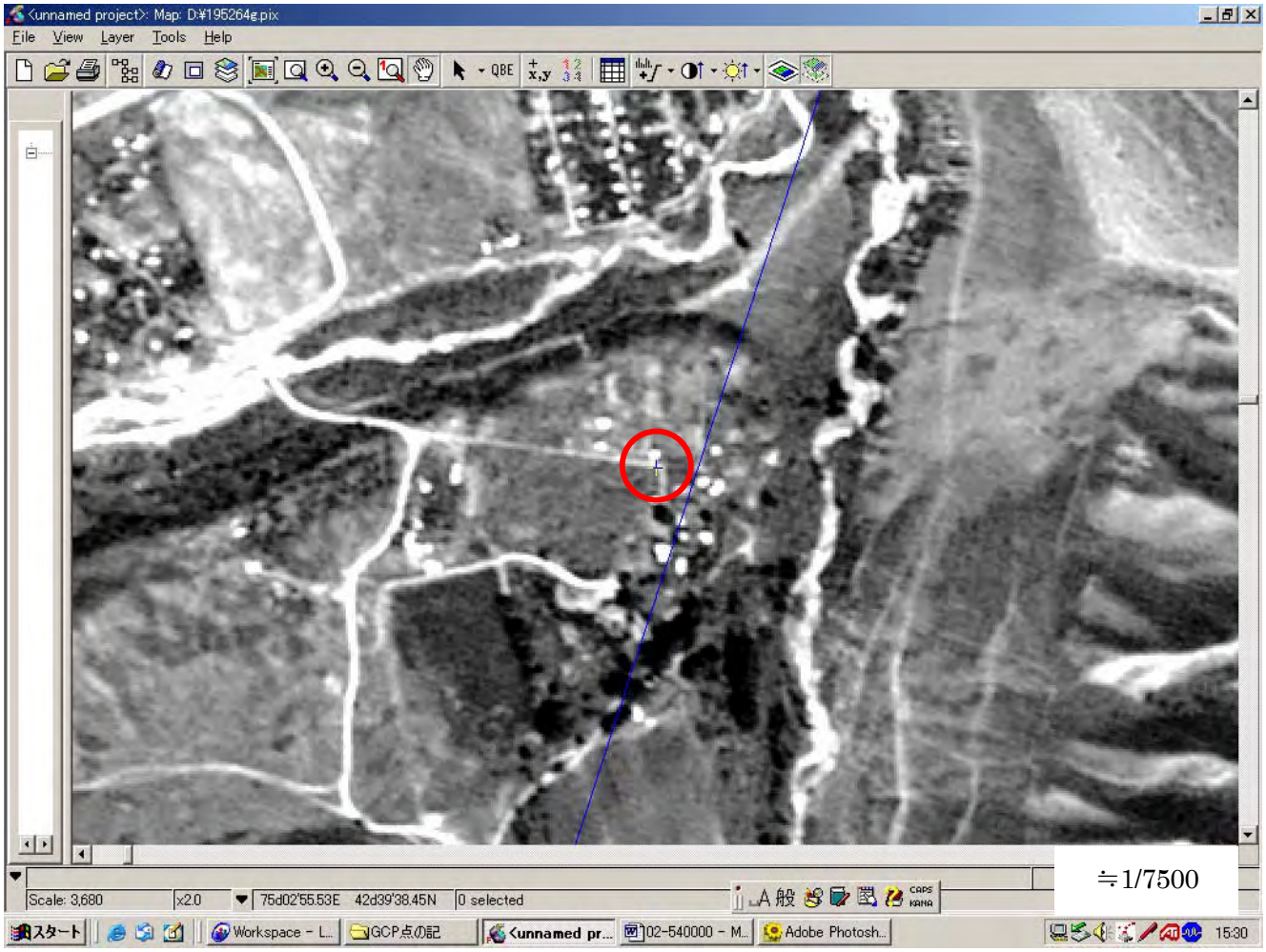
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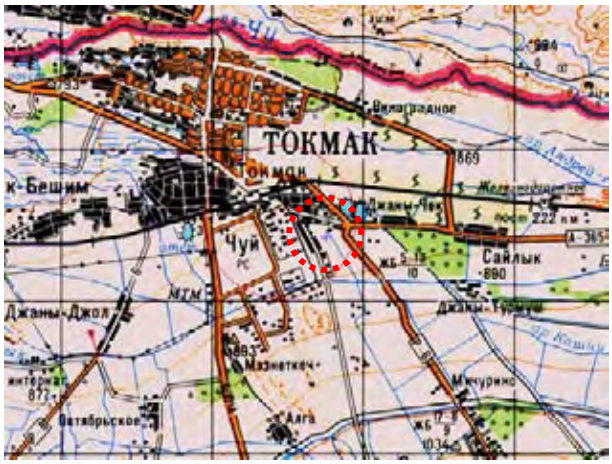
Description & Result
of
GCP-GPS

Point No.	B	L	surveyor	Roman Klimchenko
03-540000	42-48-25	75-19-57	Inspector	Masaji Koyama
Zone	X	Y		H
13				862.76



Map No.K43-X

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©CNES.2003

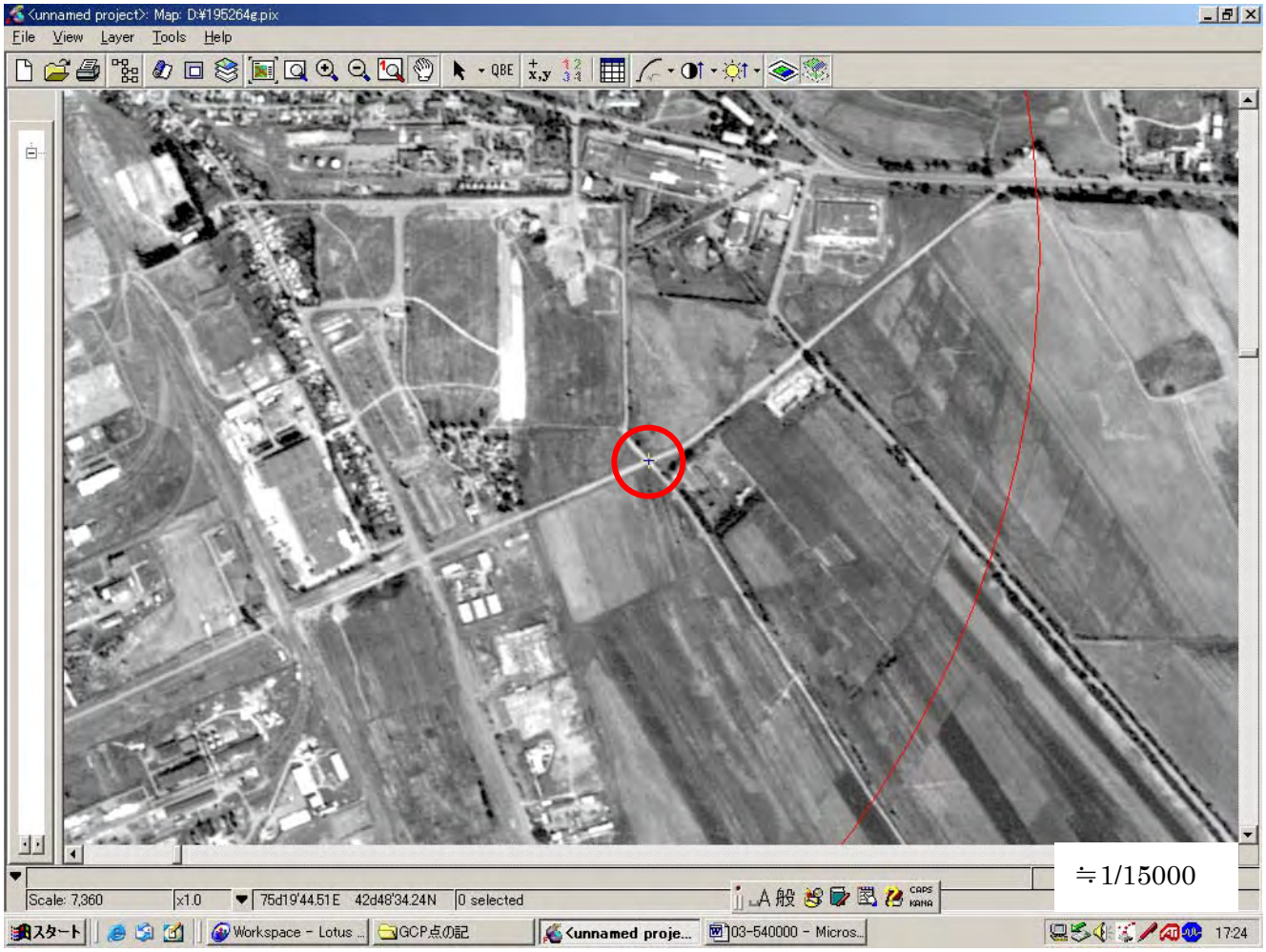
1:100,000

Date of Data Acquisition :
Column Line No. :
Off Nadia Angle :
Mode : Panchromatic

GCP Field Photo

©CNES.2003

1:25,000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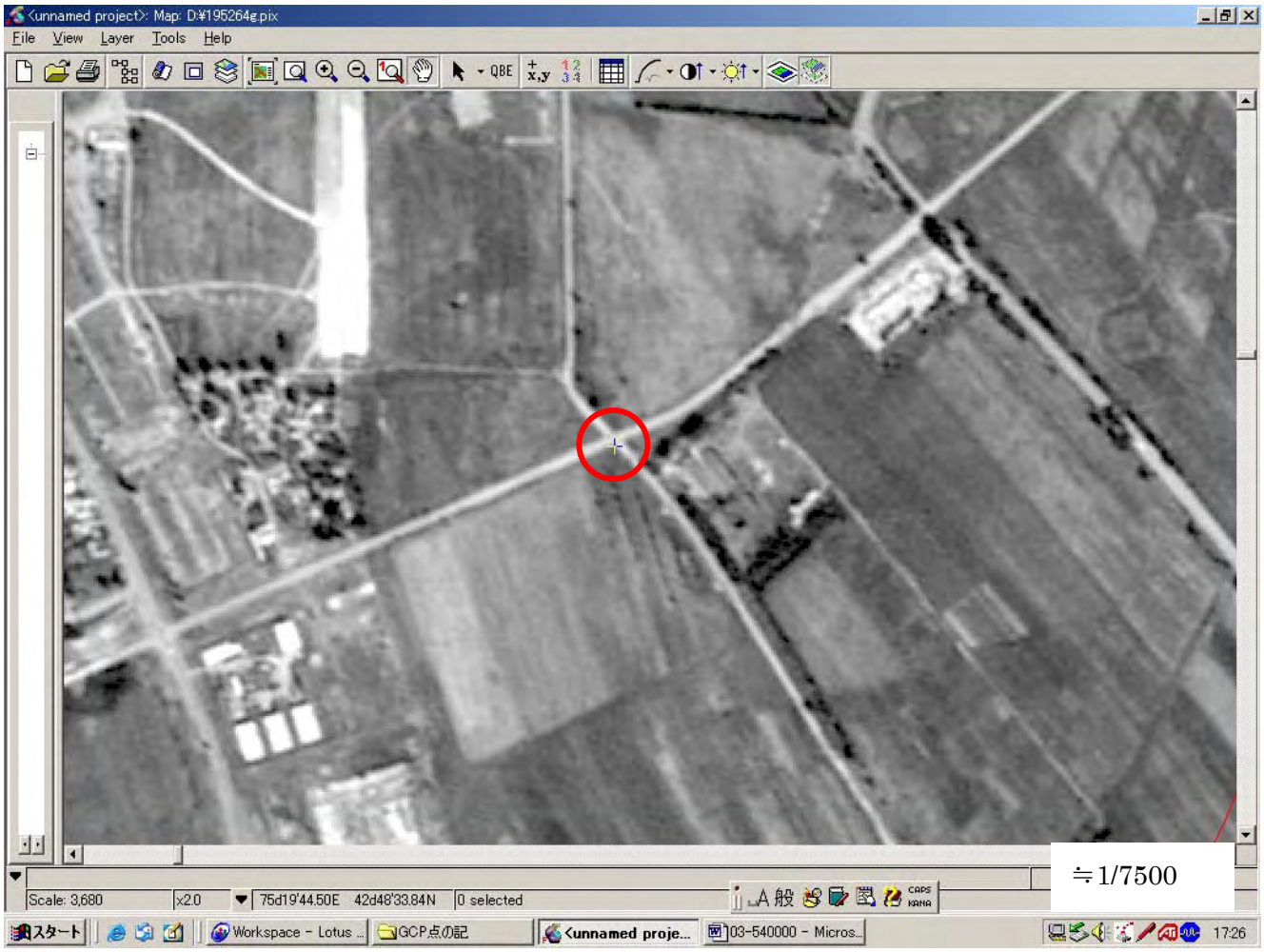
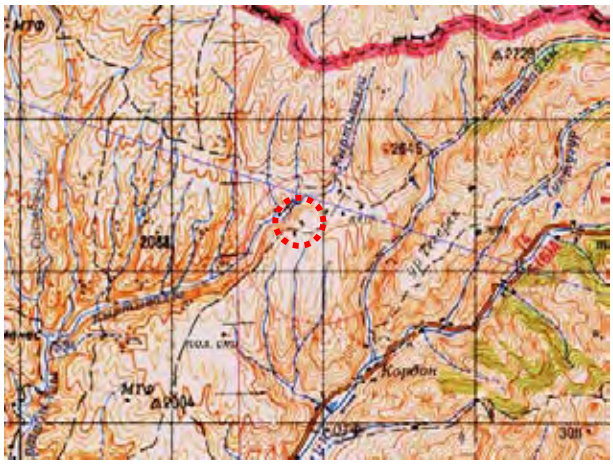
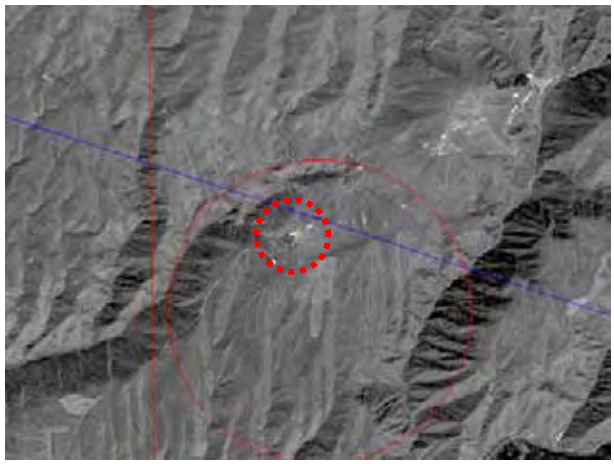

≒1/7500

Description & Result
of
GCP-GPS

Point No.	B	L	surveyor	Andrey Kireev
04-645400	42-52-25	76-01-20	Inspector	Masaji Koyama
Zone	X	Y		H
13				2135.21





Map No.K43-XI

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0.0 1.0 2.0 3.0 4km

©CNES.2003

1:100,000

Date of Data Acquisition :
Column Line No. :
Off Nadia Angle :
Mode : Panchromatic

GCP Field Photo

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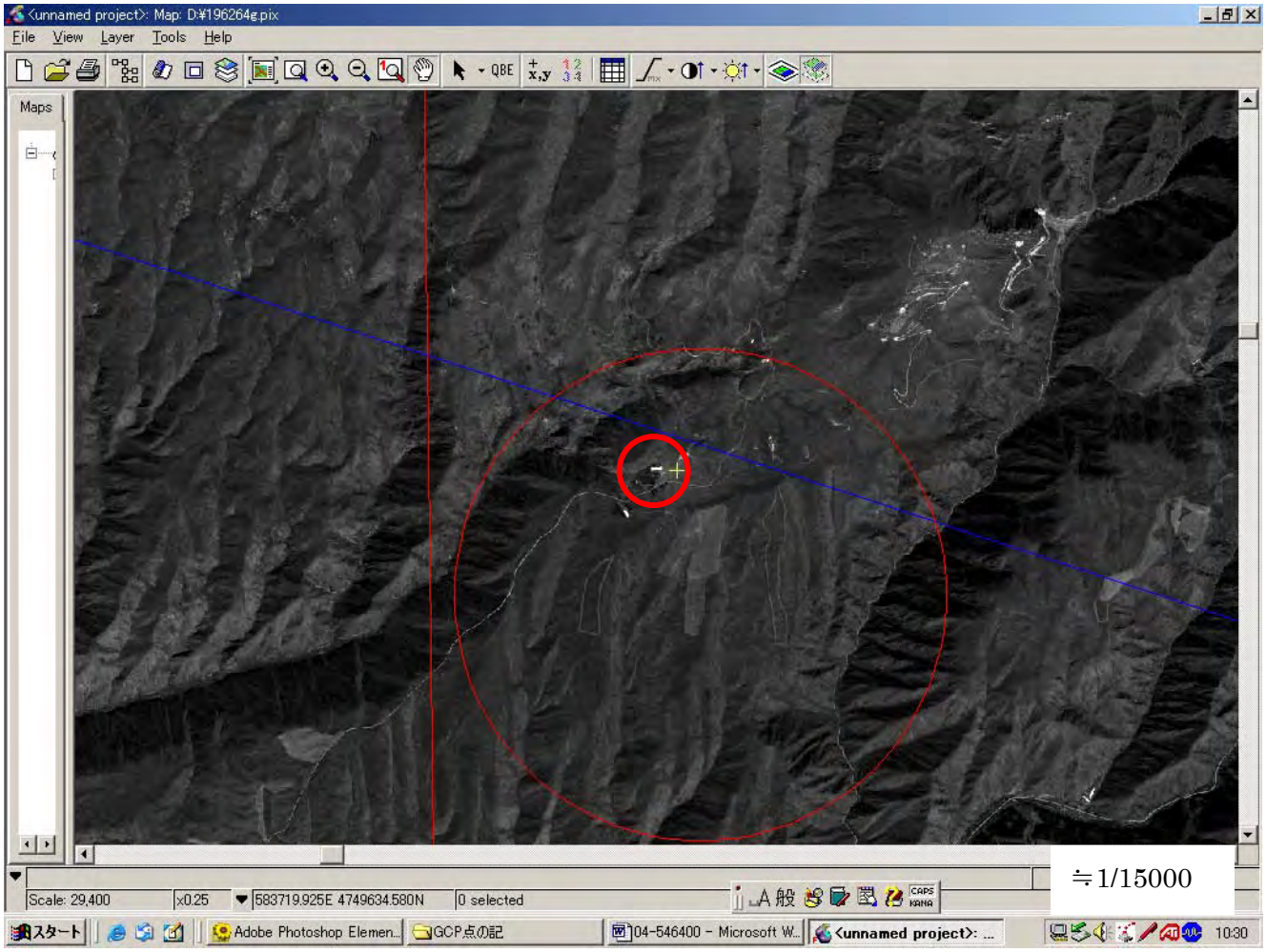
1:25,000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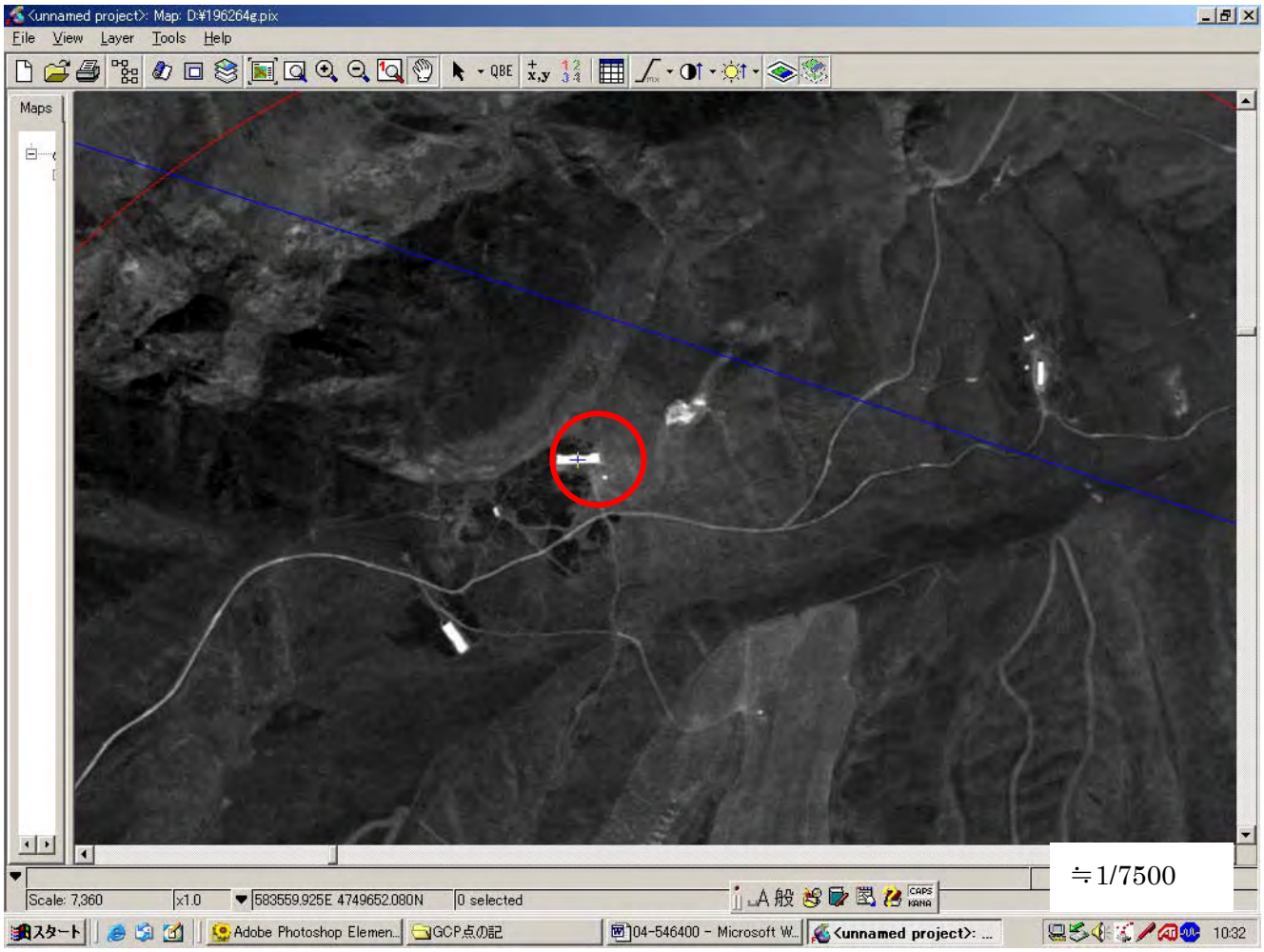
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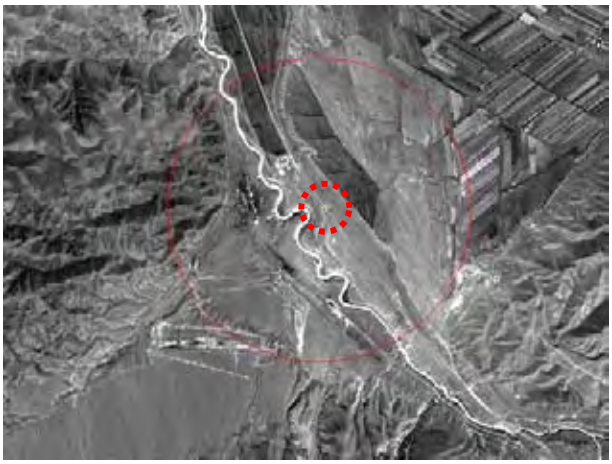
0 selected
≒1/7500

escription & Result
of
GCP-GPS

Point No.	B	L	surveyor	Andrey Kireev
05-546400	42-43-03	75-50-54	Inspector	Masaji Koyama

Zone	X	Y	H
13			1268.05



Map No.K43-XVI

1:200,000

0.0 1.0 2.0 3.0 4km

©CNES.2003

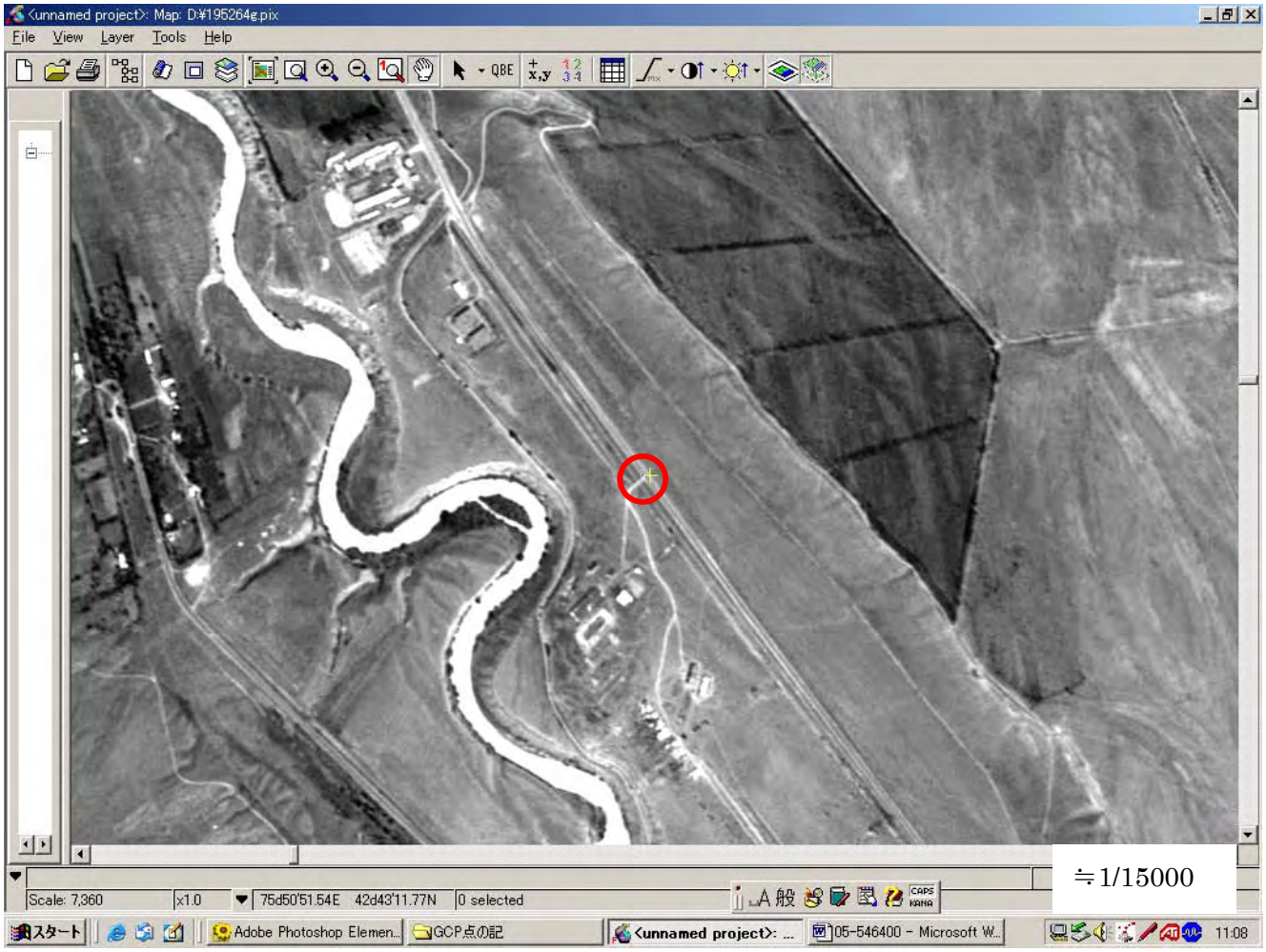
1:100,000

Date of Data Acquisition :
Column Line No. :
Off Nadia Angle :
Mode : Panchromatic

GCP Field Photo

©CNES.2003

1:25,000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≒1/7500