

CHAPTER 7.

RECOMMENDATION

CHAPTER 7. RECOMMENDATION

7-1. Recommendation Related to Topographic Map Production to SSGC

To develop the technology of topographic map production by SSGC, Study team recommends followings.

(1) Technical matters

1) Training of System Engineer

Nowadays computer technology is being continuously improved. (day by day on a global mass scale). At the same time the technology of spatial data processing is being developed quickly too by mapping firms. During the project implementation the Study team has revealed that SSGC needs more specific (concrete) knowledge and technology for system development to process mapping data. Topographic mapping can be done by the standard function of MicroStation but to accelerate work progress and to save expenses of mapping production, higher-level system development is needed. Otherwise the transferred technology from Study team to SSGC on the development of spatial data for mapping won't be effective in future.

Training of System engineers for SSGC can be carried out by their participation in training programs of foreign governmental organizations. But the training period should be more than half year depending on the course and ability of participant.

Another way is to invite foreign expert on the technical assistance program. The expert will give the opportunity to learn system development in trainees situations (circumstances) and a number of trainees can participate at the same time.

2) Operators for digitization

Operators for map digitizing should have knowledge of photogrammetry and cartography, such as photograph interpretation and understand symbols specification, at least. The speed of digitizing is very important to consume work quantity. Operator's knowledge will help to reach high productivity of mapping work.

(2) Administrative matters

1) Disclosure of Topographic maps and data

Before completion of map production, Study team addressed to the counterpart, SSGC, to provide the approval of disclosure of Topographic maps for the future wide usage of map data. The Kyrgyz government officially took action on this request and sent the official letter to the Study team through JICA Kyrgyz Republic office.

However publishing of topographic map was approved only for maps of 1:25,000 and 1:100,000 scale. Study team requested SSGC to continue work on production of new topographic map data in future for other parts of Kyrgyz Republic to assist the development and improvement of social economy in the Kyrgyz Republic.

As a result of above mentioned matters, it is considered important for SSGC to apply effort for laying down laws, regulations and standards of survey and map production that SSGC carried out, and to prepare the standards based on transferred technology, such as symbol specification for digitizing, working manual and so on.

2) Maintenance Budget

Taking into consideration the governmental budget for the management and maintenance of SSGC, it is not clear whether the maintenance and running cost of SSGC are sufficient or not. However, to develop additional production aids such as computer, plotter and other peripheral devices and software, to make more income, is necessary. SSGC is producing several map products such as city map, trekking map, tourism map and so on. But SSGC has to manage more their own income taking into consideration established (lay down) laws and regulations.

(3) Future production of Topographic map data

JICA Study team recommended SSGC to continue map-revising. Nowadays, digital mapping data is more convenient for the use and easy for processing, updating and handling. SSGC is the only one organization that has a right and power to create the National base map in Kyrgyz Republic. JICA Study team expects that in future SSGC can produce or revise mapping data applying transferred technology.

SSGC commented as following to recommendation of JICA Study team.

- Due to the development of computer technology mapping works are improving and work progress can be achieved promptly comparing to the conventional

method. But hardware and software required for this technology are quite expensive. (Mapping work is improving very quickly to get prompt work progress nowadays comparing with conventional method because of the computer technology. This technology is convenient to employ but costly to purchase hardware and software.)

- SSGC meets lack of budget to apply their skill to the latest technology.
- Transferred technology might be efficient for the next 5 or 6 years. SSGC is expecting to have further cooperation to update the technology again on other areas of Kyrgyz Republic (paragraph 4).

(4) Future plan of SSGC

SSGC is planning to produce maps for tourism development in other areas of Kyrgyz Republic applying the same technology in future. The map scale should be 1:50,000 because of multi purpose mapping. Study team investigated and gave advice to SSGC on the cost of satellite image and possibility of its acquisition and scene territories of satellite images covering Kyrgyz Republic. Following table 7-1 shows cost of satellite image data acquisition including archives data. Figure 7-1-1 and 7-1-2 show SPOT 5 satellite archives image data covering condition on Kyrgyz Republic.

No.	Satellite Image categories	Price	Additional Charge
1	SPOT 5- 2.5m B/W	5,400 euro	Programmed data acquisition; Additional 800 euro. Process Level 1A –a. 60 x 60km
2	SPOT 5- 5m B/W	2,700 euro	
3	SPOT 5- 10m Color	2,700 euro	

Table 7-1. Cost of SPOT Satellite Image

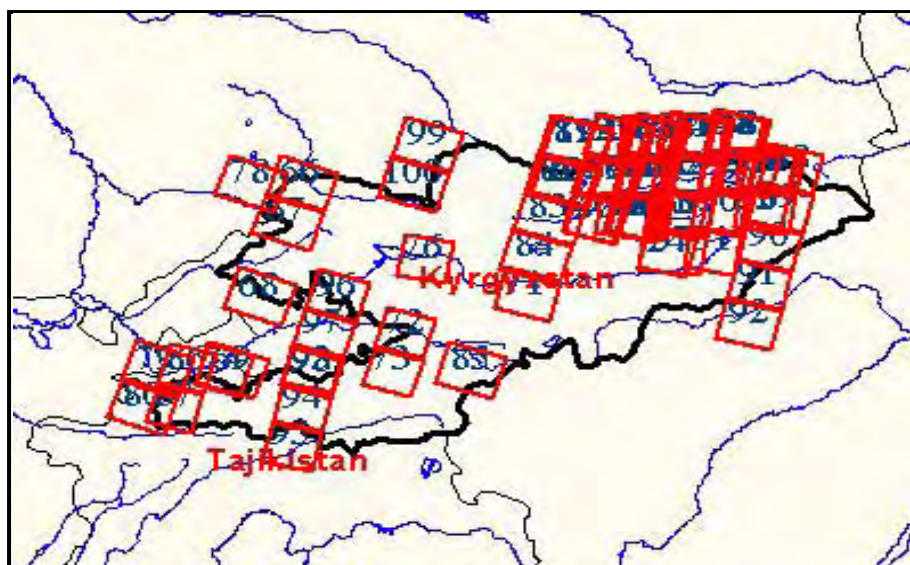


Figure 7-1-1. SPOT 5 archives Scene Territory

5) Application of Topographic map

Study team proposed SSGC to produce following products as the examples of application of topographic map.

1) Trekking Map

Towards the active utilization of digital map data, the Study team examined the method and organization for the arrangement, utilization and updating of map data. Study team proposed SSGC to produce trekking map as an example of map data application. The target place for trekking map production was Karakol city, the eastern part of Issyk-Kul area. Study team made field reconnaissance to collect landmark information for the Trekking map during Phase 2 study. Trekking map was displayed and distributed to the attendants of 2nd technology transfer seminar. At the same time, as the example of topographic map data use, Study team created simple GIS at the Karakol city with the same purpose of trekker usage. This GIS application was disclosed in seminar held at the end of 3rd stage of the project.

During preparation of trekking map data, SSGC specialists carried out digitizing and processing of digital data for 26% of the trekking map territory (figure 7-3-2) without any assistance of Study team. This fact confirmed that technology was transferred successfully.



Figure 7-3-1. Trekking Map front face

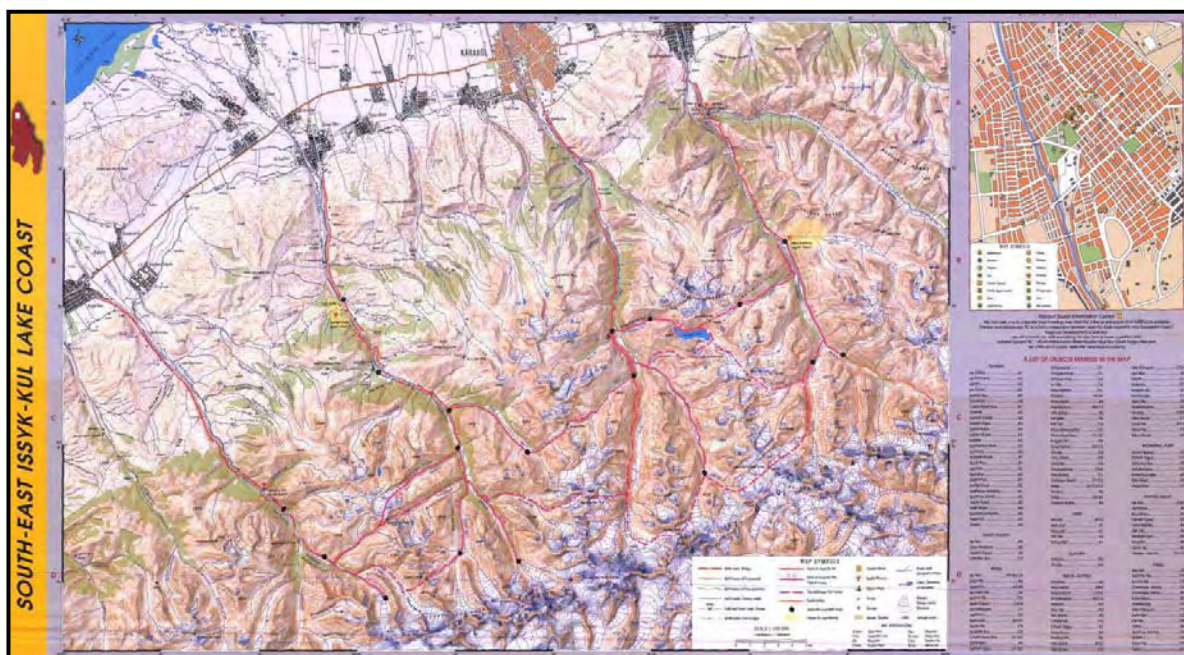


Figure 7-3-2. Trekking Map main face

Study team and SSGC distributed trekking map to the related organizations including tourist companies. The names of organization and companies are shown in the table 7-2

No.	Name of Organizations	Place	No. of Sets
1	Parliament of Kyrgyz Republic	Bishkek	5
2	KATEL, mobile company	Bishkek	5
	Tourist company “TienShan Travel”	Bishkek	5
3	Hotel “AK-KEME”	Bishkek	5
4	Hotel “Hyatt”	Bishkek	5
5	Hotel “Issyk-Kul”	Bishkek	5
6	Hotel “Dostyk”	Bishkek	5
7	Hotel “Silk Road”	Bishkek	5
8	Gosregistr of Issyk-Kul rayon	Cholpon-Ata	5
9	Issyk-Kul state historical & cultural museum	Cholpon-Ata	5
10	Tourist Information Center	Kara-Kol	10
11	Issyk-Kul Oblast Government	Kara-Kol	5
12	“Green Yard” guest house	Kara-Kol	5
13	Tourist company “Turkestan”	Kara-Kol	5

Table 7-2. Organizations for Trekking map distribution

2) LSG (Local Self Government) map

1:25,000 and 1:100,000 LSG maps were produced from Topographic map data as the one of the topographic map data usage. Maps were presented in the seminar. These maps can be used for local governance and development of social life. Map data is in digital format, therefore, it is easy to arrange and process data for required purposes. Updating of map is also easy and simple as suitable computers and software are available. In another case, local government can apply to SSGC to update the map or express necessary data for local government use on the LSG map. This is the typical way of profitable practical use of mapping data. Following figure 7-4 is the sample of LSG map scaled in 1:100,000



Figure 7-4. Example of Topographic Data Application of 1:100,000 LSG Map

7-2. Recommendation on Usage of GIS data

The results of the Study are summarized as follows.

- 1:100,000 scale topographic and digital map data covering approximately 14,000km².
- 1:25,000 scale topographic and digital map data covering approximately 2,300km².
- Provision of personal computer with peripheral equipment
- Provision of software for digital mapping, satellite image processing, operating and mapping manuals, etc.
- Transfer of technology related to the study

The 1:25,000 and 1:100,000 topographic and digital map data, covering 2,300km², 14,000km² around the Issyk-Kul area, can be used immediately for not only development of the area but various administrative purpose as it is a revised version of the existing 1:25,000 and 1:100,000 topographic maps respectively.

At the same time, some of ground features were structuralized to GIS basic data for individual scale topographic maps. This can provide a fundamental basis for GIS development in Issyk-Kul area, which can be used for various user interest and applications as basic spatial data.

The Study team recommends the Kyrgyz Government to create a unified database by adding necessary information to the basic data of individual scales provided by JICA Study team. This unified database should be developed for both analytical and management objectives in the next future stage. The expected GIS database for the Issyk-Kul zone is summarized in the following table 7-3..

No.	Field and Purposes	Advantages	Input data	Availability of input data
1	<p>Water resources management</p> <p>Purpose: To implement appropriate water control (inlet-outlet and quality of water)</p>	<p>-Data are maintain in a standard format</p> <p>-Revision and updating are easier</p> <p>-Data and information are easier to search, analyze and represent</p> <p>-Data are more value added products</p> <p>-Data can be shared and exchange freely</p> <p>-Productivity is improved and more efficient</p> <p>-Time and money are saved</p>	-River flow quantity (Average and extreme record)	yes
			-Subsurface water quality and water level	yes
			-Seasonal water quantity of irrigation and drainage	yes
			-Pollution	unknown
			-Soil classification and water permeability	unknown
2	<p>Agricultural Land use</p> <p>Purpose: To evaluate and determine acceptable arable land</p>	-do-	-Irrigation lands and rain-fed lands	yes
			-Crops, cropping pattern and production statistics	yes
			-Abandoned fields and causes	unknown
			-Land ownership	yes
3	<p>Environment and ecology</p> <p>Purpose: To restore natural environment and ecology</p>	-do-	-Land use classification	yes
			-Land cover classification	yes
			-Wildlife distribution and classification	yes
			-NOAA NVI image	yes
			-Hydrological data	yes
			-Contamination in water bodies	unknown
-Micro-topography/detailed vegetation classification of vicinity of Issyk-Kul lake	yes			
4	<p>Social environment</p> <p>Purpose: To acquire and maintain minimum living standard</p>	-do-	-Population statistics	yes
			-Social infrastructures	To be updated
			Public health	yes
			-Education	yes

Table 7-3. Expected GIS database for Issyk-Kul area

Study team expects that central and local government organizations, research institutions and international organizations have already acquired and studied most part of the above mentioned data.

However some data needs to be updated and oriented as geo-referenced data, other information needs to be acquired and analyzed.

To develop a Geographic Information System for the Issyk-Kul area, the following conditions should be established and observed.

- (1) Open classified framework data related to other agencies, experts and wide range of private users

The input data for the expected GIS database should be digitized by one central organization, as State Service of Geodesy and Cartography, which is one of the major counterpart agencies in this study. The digitized data can be utilized on the framework data shared by concerning organizations. Data updating should be managed by such organizations.

- (2) Cooperation between various agencies and experts for exchanging the existing data in different fields

An interagency committee should be established to make coordination effective and the development of the inventory, analytical and management GIS application less redundant. Regular meetings should be held by experts of various fields to exchange their topics and opinions on updating input data, method of analysis, etc. For instance, in Japan, Information Exchange Organ has been established in order to facilitate information exchange.

- (3) Sound user interests in GIS applications

Specific applications of GIS, such as water management, agricultural land use, environment and ecology and social environment should be demonstrated for users.

- (4) Important factor for a suitable GIS

- 1) Data input

The cost of data input will make about 80% of the total GIS cost. More attention should be given to selection and classification of required Geo-spatial data by taking into consideration the digitizing method. To minimize the cost, detail assessment of available data should be done because it is quite expensive to develop new Geo-spatial data. We recommend to utilize satellite image data for Kyrgyz Republic for

development and updating of input data effectively. Satellite image data can cover wide area at lower cost comparing to aerial photographs.

2) Maintenance of data base

In the Kyrgyz Republic, routine maintenance of database is carried out by limited professional personnel and equipment. It is suggested to concentrate these works at one central organization.

3) Education

The GIS project should be supported not only by top managers but also by other administrative staff and engineers. Therefore, GIS education has to be extended to all members of GIS user organization.

4) Data sharing

Data sharing is one of the most important keys to minimize the total cost of data input and maximize the use of the database. Political and administrative problems should be solved to promote the data sharing for successful GIS.

APPENDIX

- APPENDIX 1 ---- SCOPE OF WORKS**
- APPENDIX 2 ---- MINUTES OF MEETING**
- APPENDIX 3 ---- SYMBOL SPECIFICATION**
- APPENDIX 4 ---- FLIGHT REPORT**
- APPENDIX 5 ---- QUALITY CONTROL OF AERIAL
PHOTOGRAPHY**
- APPENDIX 6 ---- QUALITY CONTROL OF GPS SURVEY**
- APPENDIX 7 ---- DESCRIPTION OF GCP**
- APPENDIX 8 ---- QUALITY CONTROL OF MAP
MANUSCRIPT**

APPENDIX 1 --- SCOPE OF WORKS

SCOPE OF WORK

FOR

THE STUDY
ON
INTEGRATED DEVELOPMENT PLAN OF ISSYK-KUL ZONE
IN
THE KYRGYZ REPUBLIC

AGREED UPON BETWEEN

MINISTRY OF FINANCE OF THE KYRGYZ REPUBLIC,
THE STATE COMMISSION ON ARCHITECTURE AND CONSTRUCTION
UNDER THE GOVERNMENT OF THE KYRGYZ REPUBLIC,
THE STATE SERVICE OF GEODESY AND CARTOGRAPHY
UNDER THE STATE AGENCY ON REGISTRATION OF RIGHTS
TO IMMOVABLE PROPERTY
UNDER THE GOVERNMENT OF THE KYRGYZ REPUBLIC

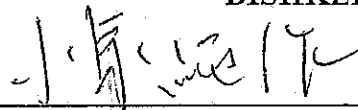
AND

JAPAN INTERNATIONAL COOPERATION AGENCY

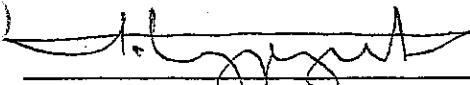
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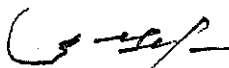
MR. EMIRLAN T. TOROMYRZAEV
FIRST DEPUTY MINISTER
MINISTRY OF FINANCE
OF THE KYRGYZ REPUBLIC
ON BEHALF OF THE GOVERNMENT
OF THE KYRGYZ REPUBLIC



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I INTRODUCTION

In response to the request of the Government of the Kyrgyz Republic (hereinafter referred to as "GOK"), the Government of Japan (hereinafter referred to as "GOJ") has decided to conduct the Study on Integrated Development Plan of Issyk-Kul Zone in the Kyrgyz Republic (hereinafter referred to as "the Study") in accordance with the relevant laws and regulations in force in Japan.

Accordingly, Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the implementation of the technical cooperation programs of GOJ, will undertake the Study in close cooperation with the authorities concerned of the GOK.

The present document sets forth the Scope of Work with regard to the Study which shall be implemented taking into consideration of related technical regulations and standards in force in the Kyrgyz Republic.

II OBJECTIVES OF THE STUDY

The objectives of the Study are as follows:

- (1) to formulate Integrated Development Master Plan of Issyk-Kul Zone;
- (2) to prepare digital topographic maps for Issyk-Kul Zone with the scale of 1:100,000 and 1:25,000 and apply them to Integrated Development Master Plan of Issyk-Kul Zone; and
- (3) to pursue technology transfer to the counterparts through the Study.

III STUDY AREA

The Study shall cover Issyk-Kul zone.

- (1) The Study area of Integrated Development Master Plan shall cover the surrounding of Issyk-Kul Lake inside the watershed. This area is shown in Appendix-1
- (2) The object area of 1:100,000 scale map shall be approximately 14,000 km² and the object area of 1:25,000 scale map shall be approximately 2,300 km². These areas are shown in Appendix -2.

IV SCOPE OF THE STUDY

In order to achieve the objectives mentioned above, the Study shall cover the following items:

1. Review and analysis of the present conditions
 - (1) review of national development plans and existing study reports in the Kyrgyz Republic
 - (2) analysis of competition powers of every industry in the Kyrgyz Republic
 - (3) investigation of the present conditions of the tourism industry including the tourism resources and the tourism markets in the Kyrgyz Republic
 - (4) investigation of the present conditions of every industry of Issyk-Kul Zone
 - (5) review of the present conditions of existing topographic maps
2. Formulation of Integrated Development Master Plan with the target year of 2025

Integrated Development Master Plan for Issyk-Kul Zone shall be made with emphasis on the followings.

- (1) formulation of a land use plan using digital topographic maps, an industrial development plan and a foreign investment promotion plan
- (2) formulation of a tourism development plan
- (3) formulation of an environmental preservation plan
- (4) formulation of a development plan about infrastructure including transportation such as roads, railways and water transportation, electric power, telecommunication, waterworks and sewage.
- (5) verification of plans with digital topographic maps
- (6) suggestion of means and systems about utilization of new digital topographic maps
- (7) selection of prior projects and preparation of plans of implementation about them
- (8) support of formulation of a development plan for Issyk-Kul administrative district
- (9) suggestion of the policy about regional development plan nationwide

3. Production of new digital topographic maps with the scale of 1:100,000 and 1:25,000

- (1) preliminary survey for designing control points
- (2) control point survey, and pricking
- (3) aerial photography (1:30,000)
- (4) creation of geometrically corrected Spot Imagery
- (5) interpretation of Spot Imagery with the aid of aerial photography
- (6) field identification
- (7) digital compilation and editing of topographic data
- (8) structuralization and symbolization
- (9) production of digital mapping data files
- (10) production of printing films

4. Overall evaluation and recommendation

V STUDY SCHEDULE

The Study will be carried out in accordance with the attached tentative schedule (Appendix-3). (The Schedule is tentative and subject to be modified when both parties agree upon, if any necessity arises during the course of the Study.)

VI REPORTS

JICA shall prepare and submit the following reports in English and Russian to GOK. In case any doubt arises in interpretation, the English version shall prevail.

(1) Inception Report

Thirty (30) copies (ten (10) copies in English and twenty (20) copies in Russian) at the commencement of the Study.

(2) Progress Report 1

Thirty (30) copies (ten (10) copies in English and twenty (20) copies in Russian) within six (6) months after commencement of the Study.

(3) Interim Report

Thirty (30) copies (ten (10) copies in English and twenty (20) copies in Russian) within fifteen (15) months after commencement of the Study.

(4) Progress Report 2

Thirty (30) copies (ten (10) copies in English and twenty (20) copies in Russian) within eighteen (18) months after commencement of the Study.

(5) Draft Final Report

Thirty (30) copies (ten (10) copies in English and twenty (20) copies in Russian) within twenty-seven (27) months after commencement of the Study.

GOK shall submit its comments within one (1) month after the receipt of the Draft Final Report.

(6) Final Report

Thirty (30) (ten (10) copies in English and twenty (20) copies in Russian) within one (1) month after the receipt of the comments on the Draft Final Report.

(7) Final Product of Topographic Mapping (made only in Russian)

a. Aerial Photographs

(a) one (1) set of negative films

(b) one (1) set of contact prints and one (1) set of contact prints for the area that shall be covered by topographic maps with the scale of 1:25,000

b. Digital Topographic Data

(a) two (2) sets of digital mapping data files in CD-Rom

(b) two (2) sets of DEM data files

c. Topographic Map

(a) one (1) set of printing films

(b) five hundred (500) sets of printed maps

(c) two (2) sets of printed maps by ink-jet printer

VII UNDERTAKING OF THE GOVERNMENT OF THE KYRGYZ REPUBLIC

1. To facilitate the smooth conduct of the Study, GOK shall undertake the following necessary measures:

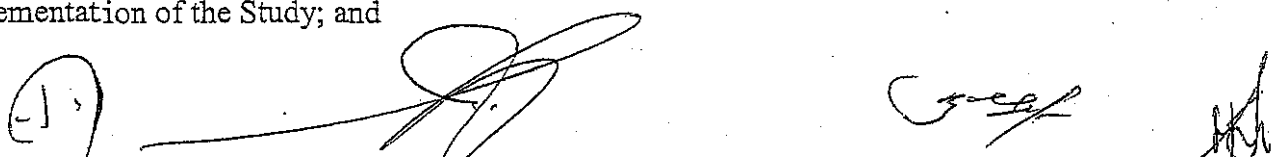
(1) to permit the members of the Japanese Study Team to enter, leave and sojourn in the Kyrgyz Republic in connection with their assignment therein, and take necessary measures to exempt them from or pay on their behalf alien registration requirements and consular fees;

(2) to take necessary measures to exempt the members of the Japanese Study Team from (or pay on their behalf) all kinds of taxes, customs duties, and other charges and payments (import taxes and others) required to pay according to the Kyrgyz Republic legislation on equipment, machinery and other materials brought into and out of the Kyrgyz Republic for the conduct of the Study;

(3) to take necessary measures to exempt the members of the Japanese Study Team from or pay on their behalf income tax and charges of any kind imposed on or in connection with any emoluments or allowances paid to the members of the Japanese Study Team for their services in connection with the implementation of the Study;

(4) to provide necessary facilities to the Japanese Study Team for remittance as well as utilization of the funds introduced into the Kyrgyz Republic from Japan in connection with the implementation of the Study;

(5) to secure necessary permission to use aircraft for aerial photography in connection with the implementation of the Study; and



(6) to secure permission for the Japanese Study Team to take all data (including topographic maps, negative films of aerial photographs, contact prints of aerial photographs) related to the Study out of the Kyrgyz Republic.

2. GOK shall bear claims, if any arises, against the members of the Japanese Study Team resulting from, occurring in the course of, or otherwise connected with, the discharge of their duties in the implementation of the Study, except when such claims arise from gross negligence or willful misconduct on the part of the members of the Japanese Study Team.

3. The State Commission on Architecture and Construction under the government of the Kyrgyz Republic (hereinafter referred to as "SCAC") and the State Service of Geodesy and Cartography under the State Agency on Registration of Rights to Immovable Property of the Kyrgyz Republic (hereinafter referred to as "SSGC") shall act as counterpart agencies to the Japanese Study Team. And SCAC shall act also as a coordinating body in relation with other governmental and non-governmental organizations for the smooth implementation of the Study.

4. GOK shall, at its own expense, provide the Japanese Study Team with the following, in cooperation with the other organizations concerned:

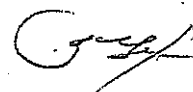
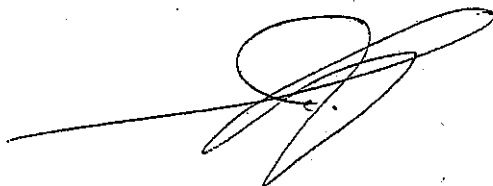
- (1) security related information on as well as necessary measures to ensure the safety of the Japanese Study Team;
- (2) information on as well as support in obtaining medical services;
- (3) available data and information related to the Study;
- (4) counterpart personnel;
- (5) suitable office space with available office equipment and furniture; and
- (6) credentials or identification cards.

VIII OTHERS

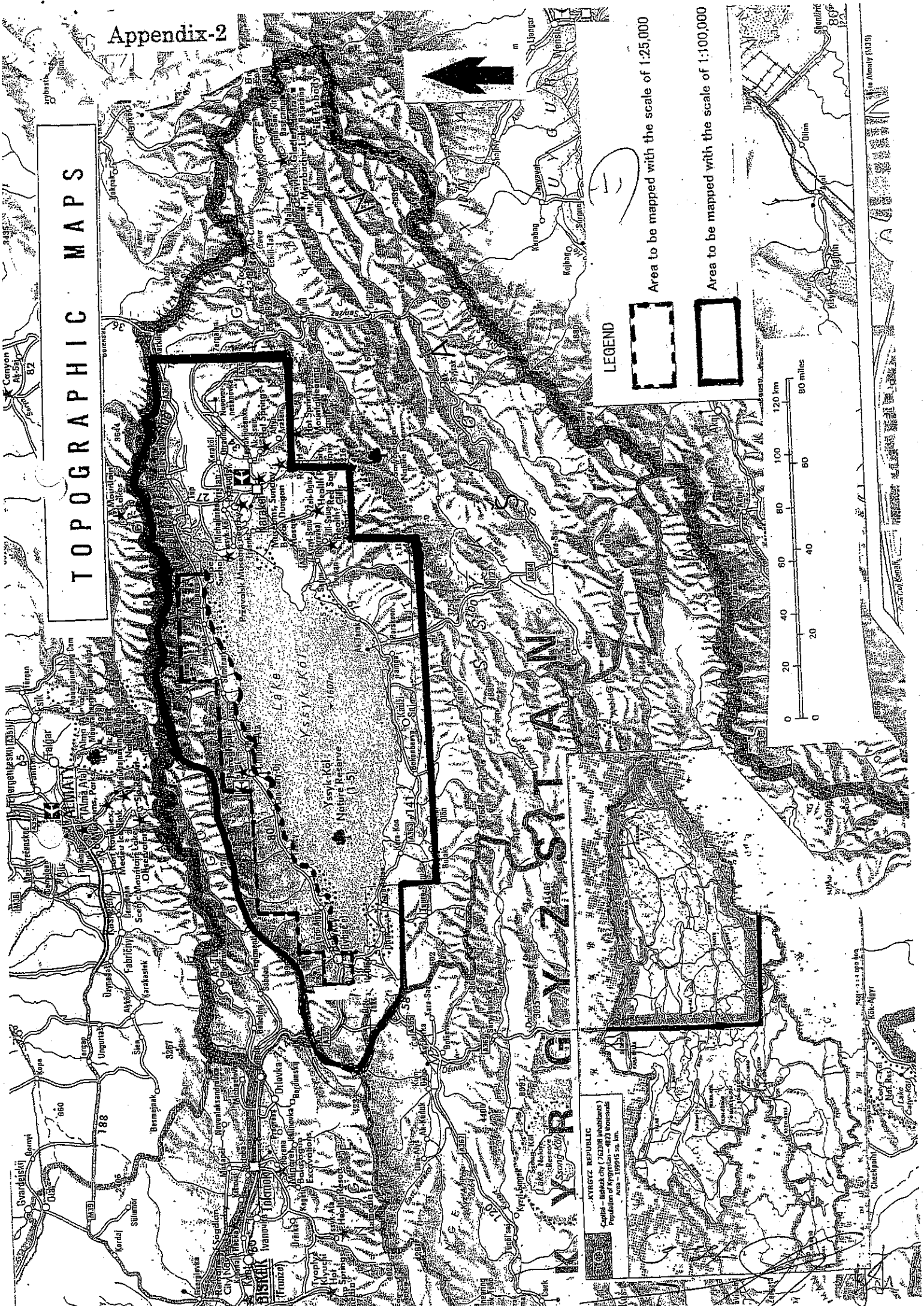
(1) SCAC, SSGC and JICA shall consult with each other in respect of any matter that may arise from or in connection with the Study.

(2) Four (4) originals of the Scope of Work are prepared both in English and Russian respectively. In case any doubt arises in interpretation, the English text shall prevail.

(1)



TOPOGRAPHIC MAPS



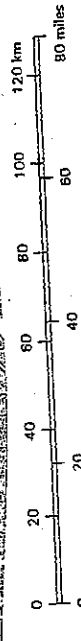
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


Area to be mapped with the scale of 1:25,000



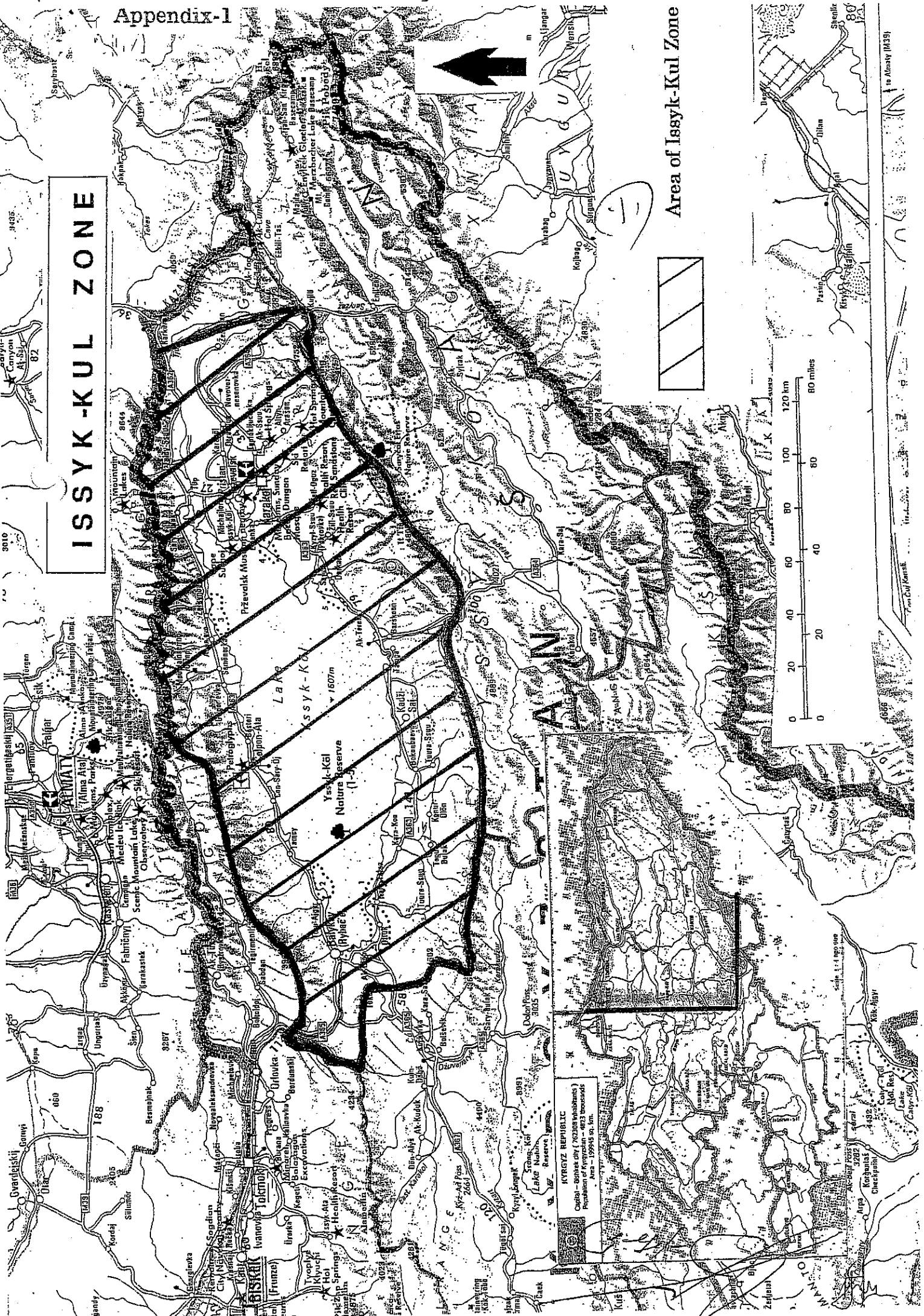
Area to be mapped with the scale of 1:100,000




KYRGYZ REPUBLIC
 Capital - Bishkek City (520,000 inhabitants)
 Population - 4,823,000 (1995 est.)
 Area - 199,000 sq. km.

Scale 1:100,000

ISSYK-KUL ZONE



Tentative Schedule

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
Work in the Kyrgyz Republic	[Redacted]						[Redacted]								[Redacted]				
Work in Japan	[Redacted]															[Redacted]			
Reports	IC					PR1									IT			PR2	

	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	
Work in the Kyrgyz Republic			[Redacted]						[Redacted]		[Redacted]								
Work in Japan	[Redacted]																		
Reports									DF		F								

IC : Inception Report
 PR1 : Progress Report 1
 IT : Interim Report
 PR2 : Progress Report 2
 DF : Draft Final Report
 F : Final Report

(A)

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APPENDIX 2 ---- MINUTES OF MEETING

MINUTES OF MEETINGS

FOR

SCOPE OF WORK

FOR

THE STUDY

ON

INTEGRATED DEVELOPMENT PLAN OF ISSYK-KUL ZONE

IN

THE KYRGYZ REPUBLIC

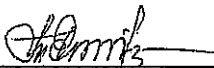
AGREED UPON BETWEEN

MINISTRY OF FINANCE OF THE KYRGYZ REPUBLIC,
THE STATE COMMISSION ON ARCHITECTURE AND CONSTRUCTION
UNDER THE GOVERNMENT OF THE KYRGYZ REPUBLIC,
THE STATE SERVICE OF GEODESY AND CARTOGRAPHY
UNDER THE STATE AGENCY ON REGISTRATION OF RIGHTS
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UNDER THE GOVERNMENT OF THE KYRGYZ REPUBLIC

AND

JAPAN INTERNATIONAL COOPERATION AGENCY

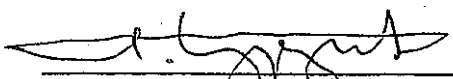
BISHKEK, JULY 14, 2003



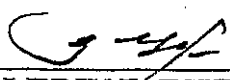
MR. EMIRLAN T. TOROMYRZAEV
FIRST DEPUTY MINISTER
MINISTRY OF FINANCE
OF THE KYRGYZ REPUBLIC
ON BEHALF OF THE GOVERNMENT
OF THE KYRGYZ REPUBLIC



MR. JUNSAKU KOIZUMI
LEADER
PREPARATORY STUDY TEAM
JAPAN INTERNATIONAL
COOPERATION AGENCY



MR. ANVAR T. TURSUNOV
CHAIRMAN
THE STATE COMMISSION ON
ARCHITECTURE AND CONSTRUCTION
UNDER THE GOVERNMENT
OF THE KYRGYZ REPUBLIC



MR. VALERIY E. TSURKOV
DIRECTOR
THE STATE SERVICE
OF GEODESY AND CARTOGRAPHY
UNDER THE STATE AGENCY ON
REGISTRATION OF RIGHTS
TO IMMOVABLE PROPERTY
UNDER THE GOVERNMENT
OF THE KYRGYZ REPUBLIC

The Preparatory Study Team, organized by Japan International Cooperation Agency (hereinafter referred to as "JICA") and headed by Mr. Junsaku Koizumi, visited the Kyrgyz Republic in July 2003, to discuss the Scope of Work for the Study on Integrated Development Plan of Issyk-Kul Zone in the Kyrgyz Republic (hereinafter referred to as "the Study").

During the stay of the Preparatory Study Team in the Kyrgyz Republic, a series of meetings on the Study were held between the Preparatory Study Team and Kyrgyzstan authorities represented by Ministry of Finance of the Kyrgyz Republic (hereinafter referred to as "MOF"), the State Commission on Architecture and Construction under the Government of the Kyrgyz Republic (hereinafter referred to as "SCAC") and the State Service of Geodesy and Cartography under the State Agency on Registration of Rights to Immovable Property of the Kyrgyz Republic (hereinafter referred to as "SSGC"), and both sides agreed and signed the Scope of Work for the Study. The list of attendees at the meetings appears in Appnedix-1.

The main items discussed by both sides are as follows:

1. TITLE OF THE STUDY

Both sides agreed that the Study title should be "The Study of Integrated Development Plan of Issyk-Kul Zone in the Kyrgyz Republic." Both sides confirmed that the Study would be implemented in order to contribute to 'General Scheme of Territorial Development of Issyk-Kul Lake Resort-Recreation Zone,' which would be formulated by the Government of the Kyrgyz Republic.

2. STEERING COMMITTEE

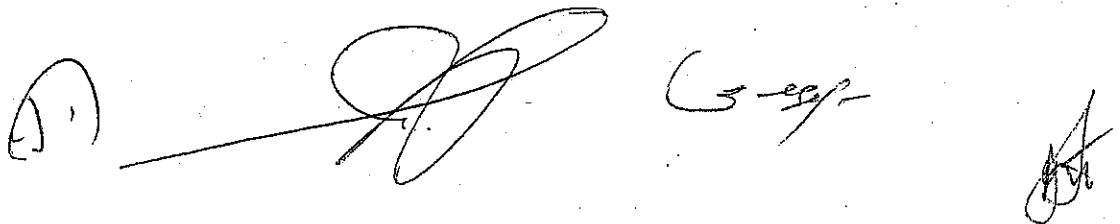
Both sides agreed that SCAC, which shall act as a coordinating body, shall establish a Steering Committee composed of the following organizations under the chairmanship of Prime Minister:

- (1) Office of the President
- (2) Prime Minister's Office
- (3) MOF
- (4) SCAC
- (5) SSGC
- (6) State Committee for Tourism, Sports and Youth Policy
- (7) Ministry of Ecology and Emergency Situations
- (8) Ministry of Foreign Trade and Industry
- (9) Ministry of Agriculture, Water Resources and Processing Industry
- (10) Ministry of Local Self-Management and Regional Development
- (11) Ministry of Transport and Communication
- (12) Issyk-Kul State Administration Office

and if necessary in the course of the Study, SCAC will add other organizations to the Committee.

3. COUNTERPART PERSONNEL

Both sides agreed that SCAC and SSGC would assign fulltime suitable counterpart personnel



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before the Study is commenced.

Counterpart personnel would have voice and vote in the deliberations during the Study and the preparation of each report.

4. COUNTERPART TRAINING

SCAC and SSGC requested that the Kyrgyz counterpart personnel should take advantage of the related training course in Japan to promote an effective technology transfer.

The Preparatory Study Team promised to convey this request to JICA Headquarters.

5. COLLABORATION WORKS FOR TECHNOLOGY TRANSFER CONCERNING PREPARING DIGITAL TOPOGRAPHIC MAPS

In order to facilitate technology transfer in the course of implementation of the Study, SSGC shall collaborate with the Japanese Study Team to execute following works;

- (1) Creation of digital topographic maps with the scale of 1:100,000 --- 1,000km²
- (2) Creation of digital topographic maps with the scale of 1:25,000 --- 200km²

6. UNDERTAKING OF KYRGYZ SIDE

(1) In reference to VII 1. (6) of the Scope of Work, the Preparatory Study Team mentioned that the Japanese Study Team would need to take all data (including topographic maps, negative films of aerial photographs, contact prints of aerial photographs) related to the Study out of the Kyrgyz Republic in order to prepare digital topographic maps. Kyrgyz side promised that the Kyrgyz Republic would take necessary procedures before the commencement of the Study.

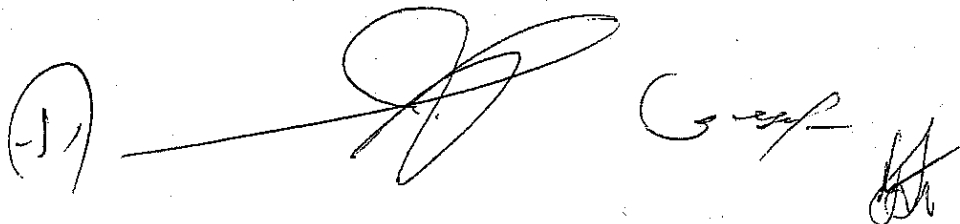
(2) In reference to VII 4. (5) of the Scope of Work, both sides agreed that SCAC and SSGC would provide offices with suitable spaces with local and international telephone lines in the buildings of SCAC and SSGC.

7. INFORMATION DISCLOSURE

Japanese side requested that all information and reports acquired and prepared through the implementation of the Study should be widely disclosed to the public. Kyrgyz side promised to make appropriate efforts to realize the disclosure of them.

8. OTHERS

Four (4) originals of the Minutes of Meetings are prepared both in English and Russian respectively. In case any doubt arises in interpretation, the English text shall prevail.

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LIST OF ATTENDANTS

Kyrgyz Side

Ministry of Finance of the Kyrgyz Republic

Mr. Emirlan T. Toromyrzaev	First Deputy Minister
Mr. Uchkunbek A. Tashbaev	Head, External Relations Division, Investment Policy Department
Ms. Nadia Yusupova	Chief Specialist, External Relations Division, Investment Policy Department

The State Commission on Architecture and Construction under the Government of the Kyrgyz Republic

Mr. Anvar T. Tursunov	Chairman
Mr. Kanybek Narbatev	Director, Institute of Architecture and Town Building

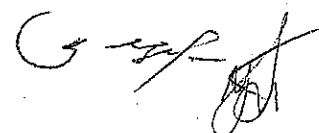
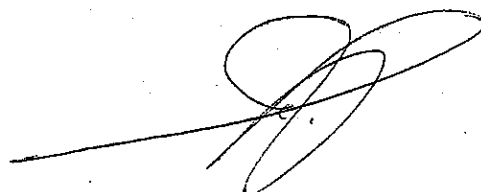
The State Service of Geodesy and Cartography under the State Agency on Registration of Rights to Immovable Property under the Government of the Kyrgyz Republic

Mr. Valeriy E. Tsurkov	Director
------------------------	----------

Japan Side

Mr. Junsaku Koizumi	Leader of the Preparatory Study Team
Mr. Shuji Koiso	Member of the Preparatory Study Team
Mr. Seiji Matsuzaki	Member of the Preparatory Study Team
Mr. Shinichi Tanaka	Member of the Preparatory Study Team
Mr. Naoyuki Minami	Member of the Preparatory Study Team
Mr. Shinya Kawada	Member of the Preparatory Study Team
Mr. Kenji Chujo	Member of the Preparatory Study Team
Mr. Hisashi Mori	Member of the Preparatory Study Team
Ms. Naoko Okabayashi	Member of the Preparatory Study Team
Ms. Yoshiko Yamanaka	Project Formulation Advisor, JICA / JOCV Kyrgyz Office

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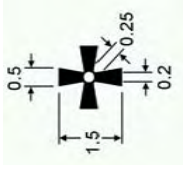
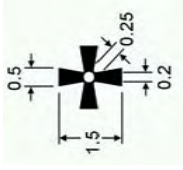

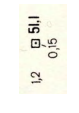
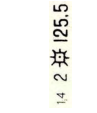
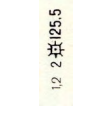


APPENDIX 3 ---- SYMBOL SPECIFICATION

The List of Map Symbols for Digitization (1) Geodetic Control Point ГЕОДЕЗИЧЕСКИЕ ПУНКТЫ 基準点

F	Code No.			Geodetic Control Points ГЕОДЕЗИЧЕСКИЕ ПУНКТЫ 測地基準点			Type	
	L	S	Fig.	1/25,000	1/100,000	Name		Specification
1	11	01	01			<p>Points of national geodetic network Пункты государственной геодезической сети (1, 4) 国家測地網の点</p>	<p>Elevation value shall be expressed Величина возвышения должна быть выражена 標高値を併記。 Plot from result table of control point Схема из таблицы результатов контрольных точек 基準点成果表から展開</p>	Pt T
2	11	01	02			<p>The same as above on hills То же на курганах (1, 4) 同じく小丘上</p>	<p>Elevation and height of the hill shall be expressed. Возвышенность и высота курганов должна быть выражена 標高値と丘の高さを併記。 Plot from result table of control point 基準点成果表から展開</p>	Pt T
3	11	02	01			<p>The same as above on buildings То же на зданиях (1) 同じく建物上</p>	<p>Small circle shall be expressed combining with building symbol. Маленький круг должен быть выражен объединенным с условным знаком здания. In the case on the building. В случае, на здании. In the case on the church. В случае, на церквях. Plot from result table of control point Схема из таблицы результатов контрольных точек 基準点成果表から展開 Express C.P. as 11-02-01 on true-scaled building. Выражение С.Р. как 11-02-01 в масштабе здания 教会のときは 11-02-01</p>	Pt

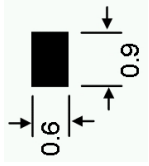
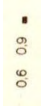
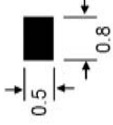

The List of Map Symbols for Digitization (1) Geodetic Control Point ГЕОДЕЗИЧЕСКИЕ ПУНКТЫ 基準点

Code No.		Geodetic Control Points ГЕОДЕЗИЧЕСКИЕ ПУНКТЫ 測地基準点			Specification	Type		
L	S	Fig.	1/25,000	1/100,000			Name	
4	11 02	02				<p>Control points on building, which shall be expressed on the 1/100,000 scale map, are only the points on the symbolized church.</p> <p>Из пунктов государственной геодезической сети на зданиях, которые должны быть изображены на картах масштаба 1:100 000, показываются только пункты на символизированных церквях</p> <p>1/100,000 図で表示される建物上の基準点は、記号表示される教会上の点のみ。</p>	<p>Plot from result table of control point</p> <p>Схема из таблицы результатов контрольных точек</p> <p>基準点成果表から展開</p>	Pt
5	11 03	01			<p>Points of surveying network, at which centers were fixed</p> <p>Точки съёмочной сети, закрепленные на местности центрами (2, 4)</p> <p>記号中心で位置が決定された、測量網の点</p>	<p>Elevation value shall be expressed.</p> <p>Величина возвышения должна быть выражена</p> <p>標高値を併記。</p> <p>Plot from result table of control point</p> <p>Схема из таблицы результатов контрольных точек</p> <p>基準点成果表から展開</p>	Pt T	
6	11 03	02			<p>The same as above on hills</p> <p>То же на курганах</p> <p>同じく小丘上</p>	<p>Elevation and height of the hill shall be expressed.</p> <p>Возвышенность и высота курганов должна быть выражена</p> <p>標高値と丘の高さを併記。</p> <p>Plot from result table of control point</p> <p>Схема из таблицы результатов контрольных точек</p> <p>基準点成果表から展開</p>	Pt T	

The List of Map Symbols for Digitization (1) Geodetic Control Point ГЕОДЕЗИЧЕСКИЕ ПУНКТЫ 基準点

Code No.		Geodetic Control Points ГЕОДЕЗИЧЕСКИЕ ПУНКТЫ 測地基準点			Specification	Type		
L	S	Fig.	1/25,000	1/100,000			Name	
7	11	04	01			<p>Tide gages and bench marks of National level-ing network Реперы и марки государственной невелирной сети (3,4) 国家水準網の驗潮標および水準基標</p>	<p>The elevation of the top of tide gage or of the center of benchmark at upper side, and the elevation of ground surface at lower side. Возвышение вершины реперы или центр марки в верхней части, и возвышение поверхности земли в нижней части. 標石の標高値を分子、地盤高を分母として表示。 Plot from result table of control point Схема из таблицы результатов контрольных точек 基準点成果表から展開</p>	<p>Pt T</p>

The List of Map Symbols for Digitization (2) Inhabited Area **НАСЕЛЕННЫЕ ПУНКТЫ** 居住地

F	Code No.		L	S	Fig.	Inhabited Area НАСЕЛЕННЫЕ ПУНКТЫ 居住地		Type
	L	S				Name	Specification	
9	21	01	01	01	 	<p>Residential and non-residential buildings Жилые и нежилые строения (6) 居住および非居住建物</p> <p>In residential blocks, in inhabited areas without planning and individually located buildings в кварталах, в населенных пунктах с бессистемной застройкой, а также отдельно расположенные строения</p> <p>街区内、非系統的建物をもつ居住区内、および個別配置建物 記号は現地の建物の方向に一致させた方向に描かれる</p>	<p>Symbolized building. Условный знак здания 記号表示</p> <p>Express rotation symbol at the location of house. Выражение вращения условного знака в положении дома. 家屋の位置で回転記号を表示</p> <p>When there is limits such as adjust rotation of symbol parallel to the road edge, MDMSPCINP is used. Когда есть предел, такой как регулирование вращения параллельных условных знаков по границе дороги, используется MDMSPCINP. 道路縁に平行等の制限がある場合、MDMSPCINP を使用する。</p> <p>Annotation is done if necessary. Аннотация дается в случае необходимости. 必要に応じて注記する。</p>	Pt T
					 			

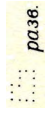
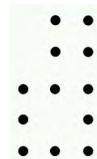

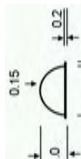
The List of Map Symbols for Digitization (2) Inhabited Area НАСЕЛЕННЫЕ ПУНКТЫ 居住地

F		Inhabited Area НАСЕЛЕННЫЕ ПУНКТЫ 居住地			Type
L	S	Code No.	Fig.	Name	Specification
9	21 02 01		1/25,000	1/100,000	Buildings expressed at scale. Larger than 0.6mm of short side on the map for 1/25,000 map. Larger than 0.5mm of short side on the map for 1/100,000 map. Здания выражены в масштабе. Более чем 0.6 мм короткой стороны на карте для 1/25,000 масштаба. Более чем 0.5 мм короткой стороны на карте для 1/100,000 масштаба. 真形表示 1/25,000 地形図：短辺 0.6mm 以上の建物 1/100,000 地形図：短辺 0.5mm 以上の建物 Acquire building out line in a clockwise. Регулирование исходящей линии выравнивания по часовой стрелке. 建物外周を右回りで取得する。 When building is on the map neat line, outline is closed at the neat line. Когда здание на четкой линии карты, исходящая линия замыкаются на четкой линии. 建物が区郭線上にある場合は、その上で閉塞させる。 When rotation is necessary (EX. parallel to the road edge) MDMSPCINP can be used. Когда вращение необходимо (на пример, параллель проходит по границе дороги) может быть использован MDMSPCINP. 道路縁に平行にするような回転が必要な場合、MDMSPCINP を使用する。 Annotation will be done when necessary. Аннотация дается в случае необходимости. 必要に応じて注記する。 Build up rows should be expressed with this code for 1/100,000 map. Воздвигаемые ряды должны быть выражены в этом коде для 1/100,000 карты. 1/100,000 地形図では、道路沿い街区もこのコードで表示する。


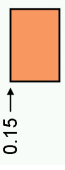
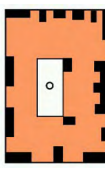
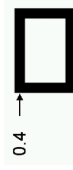
The List of Map Symbols for Digitization (2) Inhabited Area НАСЕЛЕННЫЕ ПУНКТЫ 居住地

F	Inhabited Area НАСЕЛЕННЫЕ ПУНКТЫ 居住地			Type	
	Code No.	1/25,000	1/100,000		Name
11	L S Fig.			Isolated houses and lots, not expressed in the map scale Отдельно расположенные дворы, не выражающиеся в масштабе карты (7) 地図の縮尺で表示されない、個別配置の園庭	To be expressed as 9-21-01-01. Должно быть выражено как 9-21-01-01. 記号 9-21-01-01 で表示する。
12	L S Fig. 10 16 ... разв.			Destroyed and half-destroyed buildings which are valuable as land marks Разрушенные и полуразрушенные строения, имеющие значение ориентиров (8) 目標価値のある、全壊および半壊建物	Symbolized ruin. Условный знак руин. 記号表示 To be expressed with annotation “разр.” Должен быть выражен с аннотацией. разр. と注記を添える Express rotation symbol at location of house. Выражение вращения условного знака в расположении здания. 家屋の位置で回転記号を表示。 When there is limits such as adjust rotation parallel to the road edge, MDMSPCINP is used. Когда есть предел, такой как регулирование вращения параллели, по границе дороги, используется MDMSPCINP. 道路縁に平行にするような回転が必要な場合、MDMSPCINP を使用する。



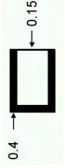
The List of Map Symbols for Digitization (2) Inhabited Area **НАСЕЛЕННЫЕ ПУНКТЫ** 居住地

F	Code No.		Inhabited Area НАСЕЛЕННЫЕ ПУНКТЫ 居住地			Type		
	L	S	Fig.	1/25,000	1/100,000		Name	Specification
12	21	04	01			The same as above 同上	<p>Ruins expressed at scale. Larger than 0.6mm of short side on the map Руины выражены в масштабе. Более чем 0.6 мм короткой стороны на карте. 真形表示 短辺 0.6mm 以上の建物 To be expressed with annotation “разв.”. Должен быть выражен с аннотацией “разв.”. разв.と注記を添える Acquire building out line with Line. Регулирование исходящей линии выравнивания с Линией. 建物外周を線で取得する。 When building is on the map neat line, snap at the neat line. Когда здание на четкой линии карты, фрагмент находится на четкой линии. 建物が区郭線上にある場合は、その上でスナップさせる。 When rotation is necessary (Ex. Parallel to the road edge) MDMSPCINP can be used. Когда вращение необходимо (на пример, параллель проходит по границе дороги) может быть использован MDMSPCINP. 道路縁に平行にするような回転が必要な場合、MSMSPCINP を使用する。</p>	L T
13	21	05	01			<p>Lasting camps as yurt, chum and so on Постоянные стоянки юрт, чумов и т.п. 恒久的な居住用ユルト、チュムその他の</p>	<p>Express symbol at the true position of object. Выражение условного знака в правильном положении объекта. 地物の真位置を記号で表示。</p>	Pt









The List of Map Symbols for Digitization (2) Inhabited Area **НАСЕЛЕННЫЕ ПУНКТЫ** 居住地

F	Code No.			Inhabited Area НАСЕЛЕННЫЕ ПУНКТЫ 居住地		Type		
	L	S	Fig.	1/25,000	1/100,000			
14	21	06	01			<p>Built-up areas mainly occupied by fire proofing buildings Плотно застроенные кварталы с преобладанием огнестойких строений: (9) 耐火建物の卓越する建物密集街区 In large cities (more than 50,000 population) В крупных городах (население более 50,000) 大都市内</p>	<p>Acquire dense housing area out line is a clockwise. Регулирование исходящей линии плотной застроенной площади проходит по часовой стрелке. 家屋密集地域周囲を右回りで取得。 When building is on the map neat line, outline is closed at the neat line. Когда здание на четкой линии карты, исходящая линия замыкаются на четкой линии. 建物が図郭線上にある場合は、その上で閉塞させる。 Building is expressed by 210101, 210201. Здания выражаются 210101, 210201. 建物は 210101, 210201 で表示。</p>	Pg
						<p>The same as above 同上</p> <p>In the other inhabited areas (less than 50,000) В прочих населенных пунктах (менее 50,000) その他の居住地内</p>	<p>The symbol 21-06-01 shall be used. Условный знак 21-06-01 должен быть использован 21-06-01 を使用</p> <p><u>[1/100,000]</u> The symbol 21-02-01 and Road codes (32-01-01, 32-02-01, 32-03-01, 32-03-02, 32-03-03) shall be used. Условный знак 21-02-01 и Коды дороги (32-01-01, 32-02-01, 32-03-01, 32-03-02, 32-03-03) должны быть использованы. 21-02-01 と道路コードを使用</p>	
14	21	06	02					

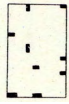
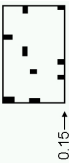
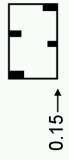
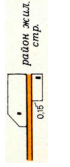
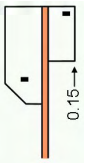
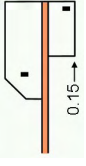
The List of Map Symbols for Digitization (2) Inhabited Area **НАСЕЛЕННЫЕ ПУНКТЫ** 居住地

F	Code No.			Inhabited Area	НАСЕЛЕННЫЕ ПУНКТЫ	居住地	Type	
	L	S	Fig.					
15	21	07	01	1/25,000		<p>Built-up areas mainly occupied by non-fire proofing buildings</p> <p>Плотно застроенные кварталы с преобладанием неогнестойких строений: (9)</p> <p>非耐火建物の卓越する建物密集街区</p>	<p>Acquire dense housing area out line in a clockwise.</p> <p>Регулирование исходящей линии плотной застроенной площади проходит по часовой стрелке.</p> <p>家屋密集地域周囲を右回りで取得。</p> <p>When building is on the map neat line, outline is closed at the neat line.</p> <p>Когда здание на четкой линии карты, исходящая линия замыкаются на четкой линии.</p> <p>建物が図郭線上にある場合は、その上で閉塞させる。</p> <p>Building is expressed by 210101, 210201.</p> <p>Здания выражаются 210101, 210201.</p> <p>建物は 210101, 210201 で表示。</p>	Pg
15	21	07	02			<p>In the other inhabited areas (less than 50,000)</p> <p>В прочих населенных пунктах (менее 50,000)</p> <p>その他の居住地内</p>	<p>The symbol 21-02-01 and Road codes (32-01-01, 32-02-01, 32-03-01, 32-03-02, 32-03-03) shall be used.</p> <p>Условный знак 21-02-01 и Коды дороги (32-01-01, 32-02-01, 32-03-01, 32-03-02, 32-03-03) должны быть использованы.</p> <p>21-02-01 と道路コードを使用</p>	Pg

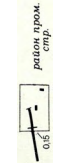
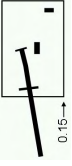
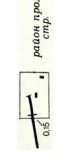
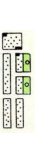
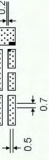
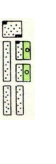
The List of Map Symbols for Digitization (2) Inhabited Area НАСЕЛЕННЫЕ ПУНКТЫ 居住地

F	Code No.		Inhabited Area НАСЕЛЕННЫЕ ПУНКТЫ 居住地		Name	Specification	Type
	L	S	1/25,000	1/100,000			
16	/	/			Build-up areas (rows), streets, of which width can not be expressed on the map scale. Плотно застроенные части кварталов (ряды); улицы, ширина которых не выражается в масштабе карты) 道幅が地図の縮尺で表示されない、街区、街路の建物密集部分	Apply symbol 210601, 210701 Употребление условного знака 210601, 210701 210601, 210701 を適用。	Pg
							
	/	/			The same as above 同上	Apply symbol 210601, 210701 Употребление условного знака 210601, 210701 210601, 210701 を適用。	Pg
							

The List of Map Symbols for Digitization (2) Inhabited Area НАСЕЛЕННЫЕ ПУНКТЫ 居住地

F	Code No.		Inhabited Area НАСЕЛЕННЫЕ ПУНКТЫ 居住地				Specification	Type	
	L	S	Fig.	1/25,000	1/100,000	Name			
17	21	09	01				<p>Sparsely built-up areas in cities and other inhabited areas Редко застроенные кварталы в городах и прочих населенных пунктах: (9) 都市およびその他の居住地内の建物散在街区</p>	<p>Acquire area out line in a clockwise. Регулирование исходящей линии площади по часовой стрелке. 地域周囲を右回りで取得 When building is on the map neat line, outline is closed at the neat line. Когда здание на четкой линии карты, исходящая линия замыкаются на четкой линии. 建物が図郭線上にある場合は、その上で閉塞させる。 Building is expressed by 210101, 210201. Здания выражены 210101, 210201. 建物は 210101, 210201 で表示する。</p>	Pg
18	21	10	01				<p>Newly constructing areas for housing (under construction areas) Районы нового жилищного строительства (строящиеся кварталы) (10) 新規住居建設地区 (建設中の街区)</p>	<p>To be expressed with annotation “район жил. стр.”. Должен быть выражен с аннотацией “район жил. стр.”. район жил. стр. と注記を添える Acquire area out line in a clockwise. Регулирование исходящей линии площади по часовой стрелке. 地域周囲を右回りで取得。 When building is on the map neat line, outline is closed at the neat line. Когда здание на четкой линии карты, исходящая линия замыкаются на четкой линии. 建物が図郭線上にある場合は、その上で閉塞させる。 Building is expressed by 210101, 210201. Здания выражены 210101, 210201. 建物は 210101, 210201 で表示する。</p>	Pg T

The List of Map Symbols for Digitization (2) Inhabited Area **НАСЕЛЕННЫЕ ПУНКТЫ** 居住地

F	Code No.			Fig.	Inhabited Area НАСЕЛЕННЫЕ ПУНКТЫ 居住地		Name	Specification	Type
	L	S	L		1/100,000	1/25,000			
19	21	11	01				<p>Newly constructing areas for industries Районы нового промышленного строительства (10) 新規産業建設地区</p>	<p>To be expressed with annotation “район пром. стр.”. Должен быть выражен с аннотацией “район пром. стр.”. Acquire area out line in a clockwise. Регулирование исходящей линии площади по часовой стрелке. 地域周囲を右回りで取得。 When building is on the map neat line, outline is closed at the neat line. Когда здание на четкой линии карты, исходящая линия замыкаются на четкой линии. 建物が図郭線上にある場合は、その上で閉塞させる。 Building is expressed by 210101, 210201. Здания выражены 210101, 210201. 建物は 210101, 210201 で表示する。 Acquire area out line in a clockwise. Регулирование исходящей линии площади по часовой стрелке. 地域周囲を右回りで取得。 When building is on the map neat line, outline is closed at the neat line. Когда здание на четкой линии карты, исходящая линия замыкаются на четкой линии. 建物が図郭線上にある場合は、その上で閉塞させる。 Building is expressed by 210101, 210201. Здания выражены 210101, 210201. 建物は 210101, 210201 で表示する。</p>	Pg
20	21	12	01				<p>Destroyed and half-destroyed blocks Разрушенные и полуразрушенные кварталы (11) 全壊および半壊街区</p>	<p>Acquire area out line in a clockwise. Регулирование исходящей линии площади по часовой стрелке. 地域周囲を右回りで取得。 When building is on the map neat line, outline is closed at the neat line. Когда здание на четкой линии карты, исходящая линия замыкаются на четкой линии. 建物が図郭線上にある場合は、その上で閉塞させる。 Building is expressed by 210101, 210201. Здания выражены 210101, 210201. 建物は 210101, 210201 で表示する。</p>	Pg

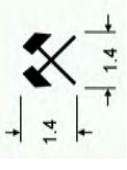
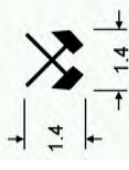
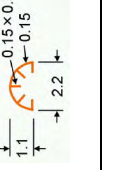
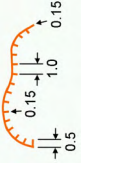
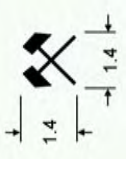
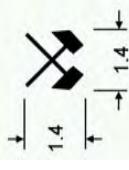
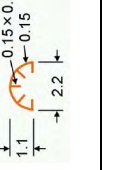
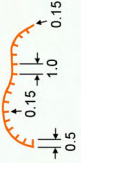
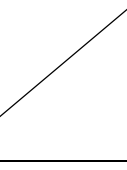
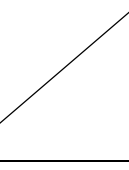
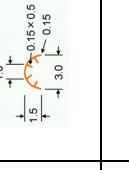
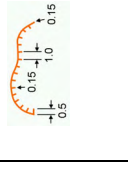
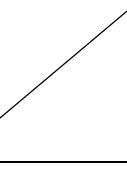
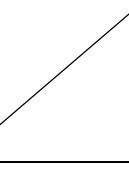

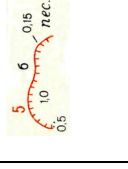

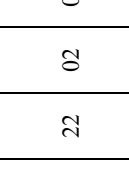
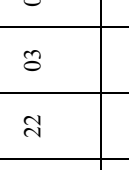
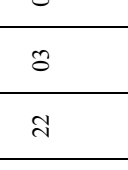
The List of Map Symbols for Digitization (3) Industry, Agriculture and Socio-cultural Field Objects

ПРОМЫШЛЕННЫЕ, СЕЛИСКОХОЗЯЙСТВЕННЫЕ И СОЦИАЛЬНО-КУЛЬТУРНЫЕ ОБЪЕКТЫ 工業、農業および社会—文化的対象物

F	Code No.			Industry, Agriculture and Socio-cultural Field Objects		ПРОМЫШЛЕННЫЕ, СЕЛИСКОХОЗЯЙСТВЕННЫЕ И СОЦИАЛЬНО-КУЛЬТУРНЫЕ ОБЪЕКТЫ		Type
	L	S	Fig.	1/25,000	1/100,000	Name	Specification	
38	22	01	01			Plants, factories and mills without chimney Заводы, фабрики и мельницы без труб (17) 煙突のない工場、製造所および製粉所	<p>Allocate symbol at true position.</p> <p>Размещение условного знака в правильном положении. 真位置を記号で表示。 Express with Annotation. Выражение с аннотацией. 注記を併記する。</p> <p>Acquire building outline in a clockwise. Регулирование исходящей линии выравнивания по часовой стрелке. 建物外周を右回りに取得する。 Express with Annotation. Выражение с аннотацией. 注記を併記する。</p>	Pt T
38	22	01	02			Plants, factories and mills with chimney Заводы, фабрики и мельницы с труб (17) 煙突のある、製造所および製粉所	<p>Allocate symbol at true position.</p> <p>Размещение условного знака в правильном положении. 真位置を記号で表示。 Express with Annotation. Выражение с аннотацией. 注記を併記する。</p> <p>Acquire area outline with code 22-01-04. Граница территории обводится контуром с кодом 22-01-04 敷地を 220104 で取得する。 Acquire building outline in a clockwise with code 22-01-03. Граница здания обводится по часовой стрелке контуром с кодом 220103 で右回りに取得する。 Express with symbol 22-01-05. Выражается условным знаком 22-01-05. 煙突記号 22-01-05 を併記する。</p>	Pg T
38	22	01	03			Plants, factories and mills with chimney Заводы, фабрики и мельницы с труб (17) 煙突のある、製造所および製粉所	<p>Allocate symbol at true position.</p> <p>Размещение условного знака в правильном положении. 真位置を記号で表示。 Express with Annotation. Выражение с аннотацией. 注記を併記する。</p> <p>Acquire area outline with code 22-01-04. Граница территории обводится контуром с кодом 22-01-04 敷地を 220104 で取得する。 Acquire building outline in a clockwise with code 22-01-03. Граница здания обводится по часовой стрелке контуром с кодом 220103 で右回りに取得する。 Express with symbol 22-01-05. Выражается условным знаком 22-01-05. 煙突記号 22-01-05 を併記する。</p>	Pt
38	22	01	04			Plants, factories and mills with chimney Заводы, фабрики и мельницы с труб (17) 煙突のある、製造所および製粉所	<p>Allocate symbol at true position.</p> <p>Размещение условного знака в правильном положении. 真位置を記号で表示。 Express with Annotation. Выражение с аннотацией. 注記を併記する。</p> <p>Acquire area outline with code 22-01-04. Граница территории обводится контуром с кодом 22-01-04 敷地を 220104 で取得する。 Acquire building outline in a clockwise with code 22-01-03. Граница здания обводится по часовой стрелке контуром с кодом 220103 で右回りに取得する。 Express with symbol 22-01-05. Выражается условным знаком 22-01-05. 煙突記号 22-01-05 を併記する。</p>	Pg
38	22	01	05			Plants, factories and mills with chimney Заводы, фабрики и мельницы с труб (17) 煙突のある、製造所および製粉所	<p>Allocate symbol at true position.</p> <p>Размещение условного знака в правильном положении. 真位置を記号で表示。 Express with Annotation. Выражение с аннотацией. 注記を併記する。</p> <p>Acquire area outline with code 22-01-04. Граница территории обводится контуром с кодом 22-01-04 敷地を 220104 で取得する。 Acquire building outline in a clockwise with code 22-01-03. Граница здания обводится по часовой стрелке контуром с кодом 220103 で右回りに取得する。 Express with symbol 22-01-05. Выражается условным знаком 22-01-05. 煙突記号 22-01-05 を併記する。</p>	Pt





















The List of Map Symbols for Digitization (3) Industry, Agriculture and Socio-cultural Field Objects

ПРОМЫШЛЕННЫЕ, СЕЛИСКОХОЗЯЙСТВЕННЫЕ И СОЦИАЛЬНО-КУЛЬТУРНЫЕ ОБЪЕКТЫ 工業、農業および社会—文化的対象物

F	Industry, Agriculture and Socio-cultural Field Objects			ПРОМЫШЛЕННЫЕ, СЕЛИСКОХОЗЯЙСТВЕННЫЕ И СОЦИАЛЬНО-КУЛЬТУРНЫЕ ОБЪЕКТЫ			Type	
	Code No.	Fig.	1/100,000	1/25,000	1/100,000	Name		Specification
39	22 02 01					Pit mouths of shafts and drifts Устья шахтных стволов и штолен(18) 縦坑および横坑の坑口 1) In operation 1) действующих 1) 稼動中	Allocate symbol at true position. Размещение условного знака в правильном положении. 真位置を記号で表示。 Express with Annotation. Выражение с аннотацией. 注記を併記する。	Pt T
39	22 02 02					The same as above 同上 2) Out of operation 2) недействующих 非稼動中	Allocate symbol at true position. Размещение условного знака в правильном положении. 真位置を記号で表示。 Express with Annotation. Выражение с аннотацией. 注記を併記する。	Pt T
40	22 03 01					Open-cast mining areas Места добычи полезных ископаемых открытым способом (карьеры) (19) 露天掘り採鉱 (採石) 地区 5 is depth in meters 5 - глубина карьера в метрах 5 は採石場の深さ、メートル	Allocate symbol at true position. Размещение условного знака в правильном положении. 真位置を記号で表示。 Acquire as line data as lower part right side for forward direction. Регулирование как линии данных так и меньшую часть правой стороны для прямого направления. 進行方向に対し、低い部分を右手にして、線データとして取得。 Express with Annotation (depth). Выражение с аннотацией (глубина). 注記 (深さ) を併記する。	Pt T
40	22 03 02							L T
46	22 04 01					Fuel and Gas tanks Склады горючего и газгольдеры (21) 燃料貯蔵庫およびガスタンク	Allocate symbol at true position. Размещение условного знака в правильном положении. 真位置に記号を配置。	Pt

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ПРОМЫШЛЕННЫЕ, СЕЛИСКОХОЗЯЙСТВЕННЫЕ И СОЦИАЛЬНО-КУЛЬТУРНЫЕ ОБЪЕКТЫ 工業、農業および社会—文化的対象物

F	Code No.			Industry, Agriculture and Socio-cultural Field Objects		ПРОМЫШЛЕННЫЕ, СЕЛИСКОХОЗЯЙСТВЕННЫЕ И СОЦИАЛЬНО-КУЛЬТУРНЫЕ ОБЪЕКТЫ		Type	
	L	S	Fig.	1/25,000	1/100,000	Name	Specification		
46	22	04	02					記号は作業者が配置する Acquire building outline in a clockwise. Регулирование исходной линии выравнивания по часовой стрелке. 敷地の外周を右回りに取得。 Allocate symbol (220401) in the compound. Размещение условного знака (220401) в структуре. 敷地内に記号 (220401) を配置。	Pg Pt
47	22	05	01					Allocate symbol at true position. Размещение условного знака в правильном положении. 真位置に記号を配置。	Pt
49	22	06	01					Allocate symbol at true position. Размещение условного знака в правильном положении. 真位置に記号を配置。	Pt
51	22	07	01					Allocate symbol at true position. Размещение условного знака в правильном положении. 真位置に記号を配置。	Pt
51	22	07	02					Acquire building outline in a clockwise. Регулирование исходной линии выравнивания по часовой стрелке. 建物の外周を右回りに取得。 Express with annotation. Выражение с аннотацией. 注記を併記。	Pg T

The List of Map Symbols for Digitization (3) Industry, Agriculture and Socio-cultural Field Objects
ПРОМЫШЛЕННЫЕ, СЕЛСКОХОЗЯЙСТВЕННЫЕ И СОЦИАЛЬНО-КУЛЬТУРНЫЕ ОБЪЕКТЫ 工業、農業および社会—文化的対象物
Industry, Agriculture and Socio-cultural Field Objects 産業、農業および社会—文化的対象物

F	Code No.			1/25,000	1/100,000	Name	Specification	Type
	L	S	Fig.					
51	22	07	03				Acquire building outline in a clockwise. Регулирование исходящей линии выравнивания по часовой стрелке. 敷地の外周を右回りに取得。 Symbol 220702 is applied to the building. Условный знак 220702 употребляется в здании. 建物は 220702 を使用。 Express with annotation. Выражение с аннотацией. 注記を併記。	Pg T
52	22	08	01			Radio stations and Television centers Радиостанции и телевизионные центры 放送局およびテレビセンタ—	Allocate symbol at true position. Размещение условного знака в правильном положении. 真位置に記号を配置。	Pt
53							To be expressed as 54. Должен быть выражен как 54 54 で表示。 Height of tower is not necessary to be expressed. Высота башни необязательно должна быть выражена. 塔の高さは表示不要。	
54	22	09	01			Television, radio- and radio relay masts Телевизионные, радио- и радиорелейные мачты テレビ塔、無線塔および無線中継塔	Height of tower is not necessary to be expressed. Высота башни необязательно должна быть выражена. 塔の高さは表示不要。 Allocate symbol at true position. Размещение условного знака в правильном положении. 真位置に記号を配置。	Pt

The List of Map Symbols for Digitization (3) Industry, Agriculture and Socio-cultural Field Objects

ПРОМЫШЛЕННЫЕ, СЕЛСКОХОЗЯЙСТВЕННЫЕ И СОЦИАЛЬНО-КУЛЬТУРНЫЕ ОБЪЕКТЫ 工業、農業および社会—文化的対象物

F	Code No.			Industry, Agriculture and Socio-cultural Field Objects		ПРОМЫШЛЕННЫЕ, СЕЛСКОХОЗЯЙСТВЕННЫЕ И СОЦИАЛЬНО-КУЛЬТУРНЫЕ ОБЪЕКТЫ		Name	Specification	Type
	L	S	Fig.	1/25,000	1/100,000	工業、農業および社会—文化的対象物	工業、農業および社会—文化的対象物			
55	22	10	01			1/100,000	1) Airports on land and water 1) Аэродромы и гидроаэродромы (25) 1) 飛行場および水上飛行場	Allocate symbol at true position. Размещение условного знака в правильном положении. 真位置に記号を配置。	Pt	
57	22	11	01			1/100,000	Main tower-typed architectures (water towers etc.) Капитальные сооружения башенного типа (водонапорные башни и т.п.) (16) 主要塔型施設 (給水塔その他)	Allocate symbol at true position. Размещение условного знака в правильном положении. 真位置に記号を配置。	Pt	
58	22	12	01			1/100,000	Simple towers (for observation, projector etc.) Вышки легкого типа (наблюдательные, прожекторные и т.п.) 簡易塔 (観測用、投光用その他)	Allocate symbol at true position. Размещение условного знака в правильном положении. 真位置に記号を配置。	Pt	
62	22	13	01			1/100,000	The hothouse, hotbed Оранжереи, теплицы, парники (26) 温室、温床	To be expressed with one symbol. Должен быть выражен одним условным знаком. ひとつの記号で表現する。 “op.” is not necessary to be expressed. Only “mпл.” shall be expressed. “op.” необязательно должен быть выражен. Только “mпл.” должен быть выражен. 注記“op.”は使用しない。“mпл.”のみ表記する。 Allocate symbol at true position. Размещение условного знака в правильном положении. 真位置に記号を配置。	Pt T	

The List of Map Symbols for Digitization (3) Industry, Agriculture and Socio-cultural Field Objects

ПРОМЫШЛЕННЫЕ, СЕЛИСКОХОЗЯЙСТВЕННЫЕ И СОЦИАЛЬНО-КУЛЬТУРНЫЕ ОБЪЕКТЫ 工業、農業および社会—文化的対象物

F	Industry, Agriculture and Socio-cultural Field Objects			ПРОМЫШЛЕННЫЕ, СЕЛИСКОХОЗЯЙСТВЕННЫЕ И СОЦИАЛЬНО-КУЛЬТУРНЫЕ ОБЪЕКТЫ			Type	
	Code No.	L	S	Fig.	Name	Specification		
62	22	13	02	1/25,000		<p>Acquire area outline in a clockwise. Регулирование исходящей линии выравнивания по часовой стрелке. 敷地の外周を右回りに取得。 Allocate symbol (221301) in compound. Размещение условного знака (221301) в структуре. 敷地内に記号 (221301) を配置。 To be expressed with one symbol in the area. Должен быть выражен одним условным знаком на площади. 記号は範囲内にひとつだけ表記する。 “op.” is not necessary to be expressed. Only “menl.” shall be expressed. “op.” необязательно должен быть выражен. Только “menl.” должен быть выражен. 注記“op.”は使用しない。“menl.”のみ表記する。</p>	Pg T	
				1/100,000				<p>The same as above 同上</p>
64	22	14	01	1/25,000		<p>Allocate symbol at true position. Размещение условного знака в правильном положении. 真位置に記号を配置。</p>	Pt	
				1/100,000				<p>Livestock enclosures Загоны для скота (28) 家畜飼養場</p>
64	22	14	02	1/25,000		<p>Acquire area outline in a clockwise. Регулирование исходящей линии выравнивания по часовой стрелке. 敷地の外周を右回りに取得。 To be expressed with annotation “загон.”. Должен быть выражен с аннотацией “загон.”. “загон.”と注記を添える</p>	Pg T	
				1/100,000				<p>The same as above 同上</p>

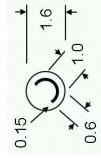



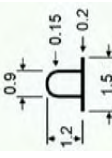
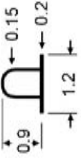
The List of Map Symbols for Digitization (3) Industry, Agriculture and Socio-cultural Field Objects

ПРОМЫШЛЕННЫЕ, СЕЛИСКОХОЗЯЙСТВЕННЫЕ И СОЦИАЛЬНО-КУЛЬТУРНЫЕ ОБЪЕКТЫ 工業、農業および社会—文化的対象物

F	Code No.			Industry, Agriculture and Socio-cultural Field Objects		ПРОМЫШЛЕННЫЕ, СЕЛИСКОХОЗЯЙСТВЕННЫЕ И СОЦИАЛЬНО-КУЛЬТУРНЫЕ ОБЪЕКТЫ		Type
	L	S	Fig.	1/25,000	1/100,000	Name	Specification	
66	22	15	01			Telegraph, radiotelegraph stations and branches, telephone offices Телеграфные, радиотелеграфные конторы и отделения, телефонные станции (29) 電信局、無線電信管理局および支局、電話局	Allocate symbol at true position. Размещение условного знака в правильном положении. 真位置に記号を配置。	Pt
67	22	16	01			Meteorological stations Метеорологические станции (29) 气象台	Allocate symbol at true position. Размещение условного знака в правильном положении. 真位置に記号を配置。	Pt
68	22	17	01			Churches; Greek orthodox, catholic and protestant Церкви, костелы, кирки (16, 30) 正教会、カトリック教会、プロテスタント教会	Allocate symbol at true position. Размещение условного знака в правильном положении. 真位置に記号を配置。	Pt
68	22	17	02				Acquire building outline in a clockwise, express symbol on the true-scaled building. Регулирование исходящей линии выравнивания по часовой стрелке, выражение условного знака в правильно выравненном масштабе.	Pg
68	22	17	03				Регулирование исходящей линии выравнивания по часовой стрелке, выражение условного знака в правильно выравненном масштабе. 建物の外周を右回りで取得し、建物上に記号を配置。	Pt
69	22	18	01			Mosques Мечети (16, 30) 回教寺院	Allocate symbol at true position. Размещение условного знака в правильном положении. 真位置に記号を配置。	Pt
69	22	18	02				Acquire building outline in a clockwise, express symbol on the true-scaled building. Регулирование исходящей линии выравнивания по часовой стрелке, выражение условного знака в правильно	Pg

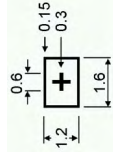
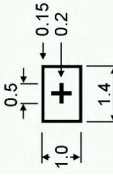
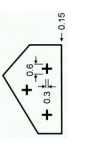
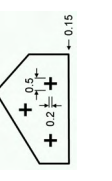


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ПРОМЫШЛЕННЫЕ, СЕЛИСКОХОЗЯЙСТВЕННЫЕ И СОЦИАЛЬНО-КУЛЬТУРНЫЕ ОБЪЕКТЫ 工業、農業および社会—文化的対象物

F	Code No.			Industry, Agriculture and Socio-cultural Field Objects			ПРОМЫШЛЕННЫЕ, СЕЛИСКОХОЗЯЙСТВЕННЫЕ И СОЦИАЛЬНО-КУЛЬТУРНЫЕ ОБЪЕКТЫ			Type
	L	S	Fig.	1/25,000	1/100,000	Name	Specification			
69	22	18	03					выравненном масштабе 建物の外周を右回りで取得し、建物上に 記号を配置。	Pt	
71	22	19	01					2) Mazarу, suburgan, obo (local graves) and other similar objects 2) Мазары, субурганы, обо и другие подобные им сооружения 2) マザーリ、スブルガン、オボその他類似の 施設	Pt	
72								Conspicuous memorials and monuments Выдающиеся памятники и монументы (16) 著名な遺跡および記念碑	To be expressed as 22-20-01. Должен быть выражен как 22-20-01 22-20-01 で表示する。	
73	22	20	01					Memorials and monuments, towers, public and individual tombs, used for orientation purposes Памятники и монументы, туры, братские могилы и отдельные могилы, имеющие значение ориентиров 目標となる、記念碑および銅像、記念塔、共 同墓地および個別の墓地 Conspicuous memorials and monuments Выдающиеся памятники и монументы (16) 著名な遺跡および記念碑	Allocate symbol at true position. Размещение условного знака в правильном положении. 真位置に記号を配置。	Pt

The List of Map Symbols for Digitization (3) Industry, Agriculture and Socio-cultural Field Objects

ПРОМЫШЛЕННЫЕ, СЕЛИСКОХОЗЯЙСТВЕННЫЕ И СОЦИАЛЬНО-КУЛЬТУРНЫЕ ОБЪЕКТЫ 工業、農業および社会—文化的対象物

F	Code No.			Industry, Agriculture and Socio-cultural Field Objects		ПРОМЫШЛЕННЫЕ, СЕЛИСКОХОЗЯЙСТВЕННЫЕ И СОЦИАЛЬНО-КУЛЬТУРНЫЕ ОБЪЕКТЫ		Type
	L	S	Fig.	1/25,000	1/100,000	Name	Specification	
74	22	21	01			<p>1) Cemeteries 1) Кладбища (31) 1) 墓地</p>	<p>Cemeteries with dense trees are not distinguished. Кладбище с плотно посаженными деревьями не рассматривается. 樹木の繁茂している墓地は区分されな い。 Allocate symbol at true position. Размещение условного знака в правильном положении. 真位置に記号を配置。</p>	Pt
74	22	21	02			<p>1) Cemeteries 1) Кладбища (31) 1) 墓地</p>	<p>Cemeteries with dense trees are not distinguished. Кладбище с плотно посаженными деревьями не рассматривается. 樹木の繁茂している墓地は区分されな い。 Acquire compound outline in a clockwise. Регулирование исходящей линии структуры по часовой стрелке, 敷地の外周を右回りに取得。</p>	Pg
74	22	21	03				<p>Allocate symbol (222003) in the compound as design. Размещение условного знака (222003) в структуре как план. 敷地内に記号(222003)を意匠的に配置。</p>	Pt

The List of Map Symbols for Digitization (3) Industry, Agriculture and Socio-cultural Field Objects

ПРОМЫШЛЕННЫЕ, СЕЛИСКОХОЗЯЙСТВЕННЫЕ И СОЦИАЛЬНО-КУЛЬТУРНЫЕ ОБЪЕКТЫ 工業、農業および社会—文化的対象物

F	Industry, Agriculture and Socio-cultural Field Objects			ПРОМЫШЛЕННЫЕ, СЕЛИСКОХОЗЯЙСТВЕННЫЕ И СОЦИАЛЬНО-КУЛЬТУРНЫЕ ОБЪЕКТЫ		
	Code No.	Fig.	1/25,000	1/100,000	Name	Specification
76	22 01			<p>Transmission lines (telephone, telegram, radio relay lines)</p> <p>Линии связи (телефонные, телеграфные, радиотрансляции)</p> <p>通信線 (電話線、電信線、ラジオ中継線)</p>	<p>Acquire true position of tower and connect as continuous line.</p> <p>Регулирование правильного положения столба и соединения как продолжающей линии.</p> <p>塔の真位置を取得して連続線とする。</p> <p>Midpoint is not acquired.</p> <p>Центровая точка не регулируется.</p> <p>中間点を取得しない。</p> <p>In case the object running along the road, power line is expressed with line element of 3 points. In such case, expressed length is 5.0mm and coordinates of edged points should coincide to 22-22-02.</p> <p>道路沿いの場合は、三点使用の線分で取得する。その場合、長さは5.0mmで取得し、端点の座標は陰線 22-22-02 と一致させる。</p>	L
	22 02			<p>The same as above</p> <p>同上</p> <p>Hidden line and break point setting</p> <p>Скрытая линия</p> <p>隠線</p>	<p>Hidden line elimination</p> <p>隠線処理</p> <p>Coordinates of edged points should coincide to 22-22-01.</p> <p>端点の座標は 22-22-01 と一致させる。</p>	L

The List of Map Symbols for Digitization (3) Industry, Agriculture and Socio-cultural Field Objects

ПРОМЫШЛЕННЫЕ, СЕЛСКОХОЗЯЙСТВЕННЫЕ И СОЦИАЛЬНО-КУЛЬТУРНЫЕ ОБЪЕКТЫ 工業、農業および社会—文化的対象物

F	Industry, Agriculture and Socio-cultural Field Objects			Type
	Code No.	Industry, Agriculture and Socio-cultural Field Objects	ПРОМЫШЛЕННЫЕ, СЕЛСКОХОЗЯЙСТВЕННЫЕ И СОЦИАЛЬНО-КУЛЬТУРНЫЕ ОБЪЕКТЫ	
	L	S	Fig.	Specification
78	22	23	01	Acquire true position of tower and connect as continuous line. Регулирование правильного положения столба и соединения как продолжающей линии. 塔の真位置を取得して連続線とする。 Midpoint is not acquired. Центровая точка не регулируется. 中間点を取得しない。 In case the object running along the road, power line is expressed with line element of 3 points. In such case, expressed length is 5.5mm and coordinates of edged points should coincide to 22-23-02.
				Acquire true position of tower and connect as continuous line. Регулирование правильного положения столба и соединения как продолжающей линии. 塔の真位置を取得して連続線とする。 Midpoint is not acquired. Центровая точка не регулируется. 中間点を取得しない。 In case the object running along the road, power line is expressed with line element of 3 points. In such case, expressed length is 5.5mm and coordinates of edged points should coincide to 22-23-02.
78	22	23	02	Hidden line elimination 隠線処理 Coordinates of edged points should coincide to 22-23-01. 端点の座標は 22-23-01 と一致させる。
				Hidden line elimination 隠線処理 Coordinates of edged points should coincide to 22-23-01. 端点の座標は 22-23-01 と一致させる。

The List of Map Symbols for Digitization (3) Industry, Agriculture and Socio-cultural Field Objects

ПРОМЫШЛЕННЫЕ, СЕЛИСКОХОЗЯЙСТВЕННЫЕ И СОЦИАЛЬНО-КУЛЬТУРНЫЕ ОБЪЕКТЫ 工業、農業および社会—文化的対象物

F	Code No.		Industry, Agriculture and Socio-cultural Field Objects		1/100,000	Name	Specification	Type
	L	S	Fig.	Fig.				
79	22	24	01			<p>Power transmission lines with metal and reinforced concrete poles (with beams, poles of which height are more than 14 m)</p> <p>Линии электропередачи (ЛЭП) на металлических и железобетонных опорах (фермах, столбах, высотой 14 м и более) (32, 34)</p> <p>金属および鉄筋コンクリート柱上（梁、柱の高さ14メートル以上）の送電線</p>	<p>Voltage and height of pole are not necessary to be expressed. 電圧及び柱高の記入は不要</p> <p>Acquire true position of tower and connect as continuous line. Регулирование правильного положения столба и соединения как продолжающей линии.</p> <p>塔の真位置を取得して連続線とする。 Midpoint is not acquired. Центровая точка не регулируется. 中間点を取得しない。</p> <p>In case the object running along the road, power line is expressed with line element of 3 points. In such case, expressed length is 6.5mm and coordinates of edged points should coincide to 22-24-02.</p> <p>道路沿いの場合は、三点使用の線分で取得する。その場合、長さは6.5mmで取得し、端点の座標は陰線 22-24-02 と一致させる。</p>	L
79	22	24	02			<p>The same as above 同上</p> <p>Hidden line and break point setting Скрытая линия 隠線</p>	<p>Hidden line elimination 隠線処理</p> <p>Coordinates of edged points should coincide to 22-24-01. 端点の座標は 22-24-01 と一致させる。</p>	L