

CONTRACT

between

**PACIFIC GEOGRAPHICAL INSTITUTE
FAR EASTERN BRANCH OF
RUSSIAN ACADEMY OF SCIENCES**

and

**RESEARCH INSTITUTE FOR HUMANITY AND NATURE
INTER-UNIVERSITY RESEARCH INSTITUTE CORPORATION
NATIONAL INSTITUTES FOR HUMANITIES**

on

**"Creation of GIS for Amur River Basin"
for July, 2005 – March, 2006**

CONTRACT

between

Pacific Geographical Institute

Far Eastern Branch of Russian Academy of Sciences

and

Research Institute for Humanity and Nature

Inter-University Research Institute Corporation

National Institutes for Humanities

on

"Creation of GIS for Amur River Basin" for July, 2005 – March, 2006

In accordance with discussions made during the International Symposium on Amur-Okhotsk Project (March 22-24, 2005), and with Agreement on Cooperation between Far Eastern Branch of Russian Academy of Sciences (FEBRAS) and The Research Institute for Humanity and Nature (RIHN) signed on March 4, 2004, the Amur-Okhotsk Project of RIHN hereinafter to be called CUSTOMER in the person of Prof. Yoneo **Ishii**, Director of Inter-University Research Institute Corporation, National Institute for Humanities, on one side, and the PGI-FEBRAS hereinafter to be called EXECUTOR in the person of Academician RAS Petr Yakovlevich **Baklanov**, Director of PGI FEB RAS, on the other side, concluded the present contract for the following.

1. Subject of the Contract

1.1. The CUSTOMER is to be charged with and the EXECUTOR is to be taken the responsibility for the continuation of the research project entitled **"Creation of GIS for Amur River Basin" for July, 2005 – March, 2006.**

1.2. The EXECUTOR is to be responsible for following works in July, 2005 – March, 2006, and for providing CUSTOMER with the products by the end of March 2006:

- Compilation of digital electronic layers in the scale 1:2,500,000 for Amur River basin (Supplement 1):

- Digital base of common geographic layers;
- Digital 3D model of relief;
- Digital Layer “Current Land-use”;
- Digital layer “Geological composition”;
- Digital layer “Vegetation”

1.3. The CUSTOMER is to be responsible for following works:

- To prepare the expenses for the EXECUTOR’s works noted in item 1.2.
- To assist in reception of officially issued cartographical materials and statistical data for the Chinese part of Amur River basin;
- To carry out coordination of works with the Chinese experts;
- To carry out coordination of works with other research groups which are carrying

out works on Amur-Okhotsk project

2. Technical conditions

- 2.1. The program of the work noted in items 1.2 and 1.3 is given in the time-schedule of the Project (Supplement 2).
- 2.2 The period of implementation is from 1 July 2005 till 31 March 2006.
- 2.3 The CUSTOMER and EXECUTOR have equal rights on the results of work and are to use them for the joint investigations within framework of the Implementation Arrangement between PGI-FEBRAS and RIHN.

3. Costs

- 3.1. The EXECUTOR is to provide Quotation to the CUSTOMER on expenses of EXECUTOR' works noted in the Item 1.2 prior to the conclusion of the Contract.
- 3.2. The CUSTOMER is to pay in US Dollars the total amount \$ 45,000 USD to the EXECUTOR for the work noted in item 1.2 in accordance with the calculations for individual stage of the works, given in Supplements 3 and 4.
- 3.3. Japanese members who will participate in the work noted in items 1.2 and 1.3 are to pay for the following expenses (these expenses are not involved in the amount above): air and train fares between Japan and the research fields and personal fees such as accommodations and meals.
- 3.4. The payment is to be made as follows:
 - The first payment of \$ 36,000 USD (80 %) being just after the conclusion of the Contract;
 - The second (final) payment of \$ 9,000 USD (20 %) being just after the receipt of Final Report.
- 3.5 The EXECUTOR is to submit Final Report including all results of works before March 15, 2006.
- 3.6 On termination of the work at May 31, 2006, the EXECUTOR is to submit the Document about the accomplishment of the work to the CUSTOMER in two copies. The Contract is considered to be over after signing of the Document by both sides and final payment is done.

4. Other conditions

- 4.1. In case of destroying of habitable premises, devises and equipment due to natural disaster (fire, earthquake, lightning etc.) the schedule of the work and calculations are to be corrected taking into account an occurred damage.
- 4.2. The equipment, tools and other properties obtained for the implementation of the Contract are to be belonged to the side, which purchased them.

5. Effective period of the Contract

- 5.1. The Contract is to be effective after the signing by both sides, and is to terminate at the time of signing of the Document by both sides.

6. Legal Address and Signs of sides

CUSTOMER

Research Institute for Humanity and Nature (RIHN)
Inter-University Research Institute Corporation
National Institutes for the Humanities
335 Takashima-cho, Kamigyo-ku, Kyoto 602-0878, JAPAN
Phone: +81-75-229-6188; Fax: +81-75-229-6150

EXECUTOR

Pacific Geographical Institute (PGI FEB RAS)
Far Eastern Branch of Russian Academy of Sciences (FEBRAS)
7 Radio St., Vladivostok, 690041 Russia
Phone: +7-4232-320672; Fax: +7-4232-312159

Bank requisites:

Tranzit Bank:

SWIFT – CODE: IRVT US 3N

The Bank of New-York, New-York, USA, 890-0057-610

Account with Institution:

SWIFT – CODE: SABRRU8KVLD

SBERBANK (DALNEVOSTOCHNY HEAD OFFICE) VLADIVOSTOK
BRANCH 8635/0172 VLADIVOSTOK RUSSIA

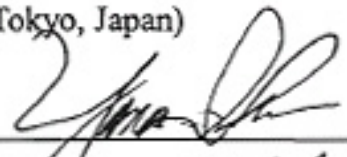
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PACIFIC INSTITUTE OF GEOGRAPHY

FAR EASTERN BRANCH RUSSIAN ACADEMY OF SCIENCES

CUSTOMER

Prof. Yoneo Ishii
Director,
Inter-University Research
Institute Corporation, National
Institute for Humanities
(Tokyo, Japan)


DD MM. 4 July 2005

The Contract is made in two copies in English

EXECUTOR

Academician RAS
P.Ya.Baklanov
Director, Pacific Geographical
Institute, FEB RAS
(Vladivostok, Russia)


DD MM. 4 July 2005



Supplement 1

Detailed contents of project works "**Creation of GIS for Amur River Basin**" for July, 2005 – March, 2006

All digital layers are built on the base of Arc/INFO, ArcView in the scale 1:2,500,000, and can be represented in the E00 exchange format. Compilation of every layer include search and collection of initial data, processing into uniform standard and scale, consultations on names and borders, formation of relevant data bases, revisions.

Digital base of common geographic layers are formed on the base of available from various sources. They consist of:

- relief in heights step of 300 m
- hydrological network – main river-beds, watercourses, lakes, reservoirs, channels.
- settlements – state capitals, provincial and regional centers, cities with population more 1 million, 1 million – 500 thousand, 500 thousand – 100 thousand.
- road network – railways, motor roads (highways, other roads with hard cover).
- borders – state, administrative provincial and regional.

Digital 3D model of relief is built using data of the Shuttle Radar Topographic Mission (SRTM) with step of 15 arcsecond.

Digital Layer Current “Land-use” is compiled on the base of decoded satellite imagery MODIS with resolution of 250 meters on the spot. In case of necessity, LandsatTM imagery with resolution of 50 meters is used for certain problem areas (if available).

The Current Land-use Layer should include the following types of the current land-use:

1. ***Forest lands***: conifer forest, deciduous forest, sparse, other forest lands
2. ***Grasslands***
3. ***Arable lands***: paddy fields, dry lands
4. ***Water***: channels, lakes, reservoirs, wide rivers, wetlands
5. ***Large settlements***
6. ***Unused lands***

Insignificant revisions are possible.

Digital layer “Geological composition” is compiled on the base of “The Geological Map of Priamurye and contiguous territories”, scale 1:2,500,000, edition of the 1999 year.

The Geological Composition Layer should include:

- Distribution of geological bodies of various age and composition at the level of departments and partly stages (if necessary) for sedimentary, metamorphic and volcanogenic rocks; at the level of formations for intrusive rocks.
- Main geologic fractures.

Digital layer “Vegetation”

Vegetation on the Russian territory is compiled on the base of "The Vegetation Map of The Amur River Basin", scale 1:2,500,000, edition of the 1968 year with revisions of certain areas according to the maps of the large scales and later editions.

Vegetation on the territories of China and Mongolia is compiled on the base of various maps and atlases, printed in Russia and other countries.

The Vegetation Layer should include the following types of vegetation:

Vegetation of lowlands, plains and low plateaus:

- | | |
|----------------------------------|------------------------------------|
| 1. Korean pine-deciduous forests | 7. Birch forests |
| 2. Fir-spruce forests | 8. Meadows and bushes vegetation |
| 3. Pine forests | 9. Forbs grass – Gramineae steppes |
| 4. Larch forests | 10. Mari |
| 5. Mixed deciduous forests | 11. Brackish communities |
| 6. Oak forests | |

Mountainous vegetation:

- | | |
|------------------------|------------------------------------|
| 1. Mountainous tundras | 5. Korean pine – deciduous forests |
| 2. Mountainous pine | 6. Mixed deciduous forests |
| 3. Larch forests | 7. Oak forests |
| 4. Fir-spruce forests | 8. Birch forests |

Insignificant revisions are possible.

From the CUSTOMER:



Prof. Yoneo Ishii
Director,
Inter-University Research
Institute Corporation, National
Institute for Humanities
(Tokyo, Japan)

DD, MM, *4*, July, 2005

From the EXECUTOR:



Academician RAS
P. Ya. Baklanov
Director of Pacific Geographical
Institute, FEB RAS
(Gornaya, Russia)

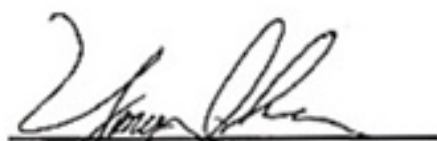


June, 2005

Time-Schedule
of the works on the project "Creation of GIS for Amur River Basin"
(Pacific Institute of Geography FEB RAS)

Description of the work	Date of start of the work	Date of finish of the work
1. Creation of Digital base for common geographic layers	1 July, 2005	30 September, 2005
2. Creation of Digital 3D model of relief - DEM	1 July, 2005	1 August, 2005
3. Creation of Digital Layer Current "Land-use"	1 August, 2005	28 February, 2006
4. Creation of Digital layer "Geological composition"	1 September, 2005	31 December, 2005
5. Creation of Digital layer "Vegetation"	1 September, 2005	31 December, 2005

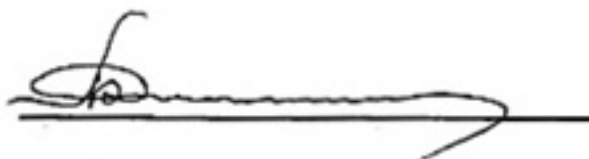
From the CUSTOMER:



Prof. Yoneo Ishii
 Director,
 Inter-University Research
 Institute Corporation, National
 Institute for Humanities
 (Tokyo, Japan)

DD, MM, *4 July*, 2005

From the EXECUTOR:



Academician RAS
 P.Ya. Baklanov
 Director of Pacific Geographical Institute,
 FEB RAS
 (Vladivostok, Russia)



June, 2005

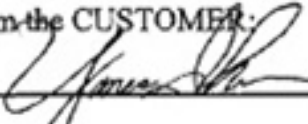
Supplement 3

**The budget of the project "Creation of GIS for Amur River Basin"
(Pacific Institute of Geography FEB RAS)**

Article	Section of works	The contents of works	Conditions of calculation	The sum for 2005
Wages	Base electronic layers: a relief, rivers, settlements, road system, borders	Coercion the uniform standard and scale, the coordination of names and borders, editing	3peoples x 3 month. x 160\$ 3peoples x 3 month. x 173.3\$	3000
		3D-model of a relief Scale:1:2500 000	Compiling the maps, the coordination of layers, editing	1people x 1 month x 480\$ 1people x 1 month x 200\$
	Digital layer "Land use" present situation Scale:1:2500 000	Search and gathering of a material, drawing up, editing	5 people x 4 month x 480\$	9 600
		Entering the data in the data-base, formation of Arc/INFO layer	2people x 2 month x 200\$	800
	Digital layer "Geology" Scale: 1:2500000	Search and gathering of a material, drawing up, editing	4 people x 2 month. x 480\$	3 840
		Entering the data in the data-base, formation of Arc/INFO layer	4 people x 2 months x 200\$	1 600
	Digital layer "Vegetation" Scale:1:2500 000	Search and gathering of a material, drawing up, editing	4 peoples x 2 months. x 480\$	3 840

		Entering the data in the data-base, formation of Arc/INFO layer	4 peoples x 2 months x 200\$	1 600
	Scientific management of the project		1 people x 10 month x 500\$ x 40% /year	2 000
	Coordinator		1 people x 10 month x 400\$ x 30% /year	1 200
Traveling and living expenses			Foreign: 2 trips 2 people/year x 1000\$	4 000
			Interior: 2 trips 2 peoples/year x250\$;	1 000
The information, satellite images, services of the another organizations				6 500
Program technical support				500
Modernization of the equipment				2 000
The Internet, mail, communication				1 000
Materials: cartridges, a paper, the writing goods, copying				1 500
The bank commission				340
TOTAL				45 000

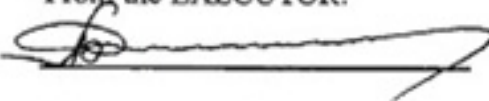
From the CUSTOMER:


Prof. Yoneo Ishii
Director,
Inter-University Research
Institute Corporation, National
Institute for Humanities

(Tokyo, Japan)

DD, MM, *4*, July, 2005

From the EXECUTOR:


Academician RAS
P. Ya. Baklanov
Director of Pacific Geographical
Institute, FEB RAS
(Gorno-Altayskiy Krai, Russia)



Signature, 2005

Document
on the cost of work

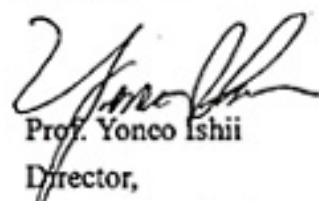
According to the Contract between PGI-FEBRAS and RIHN for 2005

Project title: "Creation of GIS for Amur River Basin"
for July, 2005 – March, 2006

We, undersigned Prof. Yoneo Ishii on behalf of the Inter-University Research Institute Corporation, National Institute for Humanities, hereinafter to be called CUSTOMER, on the one side, and Academician RAS Petr Yakovlevich Baklanov on behalf of the Pacific Geographical Institute, Far Eastern Branch of Russian Academy of Sciences, hereinafter to be called EXECUTOR, on the other side, concluded the agreement about the cost on the above mentioned research in sum of 45,000 USD (Forty five thousands US Dollars).

This Document is the basis for the calculations and payments between CUSTOMER and EXECUTOR.

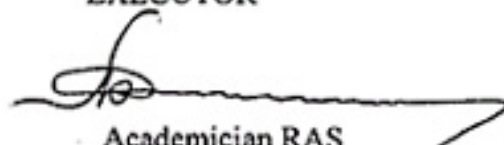
CUSTOMER



Prof. Yoneo Ishii
Director,
Inter-University Research
Institute Corporation, National
Institute for Humanities
Syuwa-Kamiyacho Bil 2-204
Toranomom 4-3-13, Minatoku
Tokyo, 105-0001, Japan

Date: *x July* 2005

EXECUTOR



Academician RAS
Petr Ya. Baklanov
Director
Pacific Geographical Institute
FEB RAS

Vladivostok

