

RUSSIAN ACADEMY OF SCIENCES

NATIONAL GEOPHYSICAL COMMITTEE

РОССИЙСКАЯ АКАДЕМИЯ НАУК

НАЦИОНАЛЬНЫЙ ГЕОФИЗИЧЕСКИЙ КОМИТЕТ



NATIONAL REPORT

of the

National Geophysical Committee of Russia

for the

International Union of Geodesy and Geophysics

2007–2010

НАЦИОНАЛЬНЫЙ ОТЧЕТ

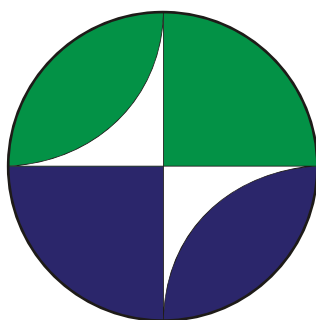
Национального геофизического комитета России

Международного

геодезического и геофизического союза

2007–2010

Москва 2011 Moscow



**Presented to the XXV General Assembly
of the
International Union of Geodesy and Geophysics**

**К XXV Генеральной ассамблее
Международного геодезического и геофизического
союза**

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This quadrennial National Report of Russia for the International Union of Geodesy and Geophysics was prepared on the occasion of the XXV General Assembly of IUGG in Melbourne, Australia, on 28 June–7 July 2011. This report summarizes the research carried out in Russia in the fields of Earth sciences during the period 2007–2010. It was prepared under the direction of the National Geophysical Committee of Russia (NGC) of the International Union of Geodesy and Geophysics. The National Geophysical Committee represents Russia in IUGG. NGC operates under the direction of the Earth Sciences Branch of the Russian Academy of Sciences.

The aim of this report is to inform both the Russian and international scientific communities of the research areas and research progress that has been achieved in geodesy and geophysics in Russia over the last four years.

The main body of the National Report of Russia includes the present report prepared by NGC Bureau and thematic reports compiled by the members of corresponding sections of NGC.

The present report gives a brief outlook of the Committee activity for the previous four years. Full PDF-version of the Russian National Report is available at the NGC web-page: http://ngc.gcras.ru/index_eng.html

Editorial Board

A.D. Gvishiani (*Chief Editor*), R.I. Krasnoperov (*Deputy Chief Editor*),
Yu.S. Lyubovtseva, V.P. Dasaeva.

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General information and history

The National Geophysical Committee of Russia (NGC) is the official representative of the Russian Federation at the International Union of Geodesy and Geophysics. NGC operates under the direction of the Earth Sciences Branch of the Russian Academy of Sciences (RAS). The Committee is hosted by the Geophysical Centre of RAS. The Committee President and members of the Committee Bureau are approved by the RAS Presidium.

The history of the National Geophysical Committee of Russia dates back to 1950-s. 1957 was announced as the International Geophysical Year (IGY). The programme of the IGY involved activities in seismology, gravimetry, and geoelectricity. The decision to hold the IGY was supported by International Union of Geodesy and Geophysics, International Scientific Radio Union, and International Council of Scientific Unions.

Like in other IGY participant countries in the Soviet Union an Interdepartmental Committee for the IGY preparation and planning was formed by a governmental decree. This organization was headed by a prominent geophysicist, academician Grigory Gamburtsev. After his death in 1955 the Committee was headed by the Vice-President of Academy of Sciences of USSR academician Ivan Bardin.

In January 1961 on the basis of the Soviet IGY Committee an Interdepartmental Geophysical Committee under the AS USSR Presidium was organized.

For nearly 30 years (1961–1990) the Committee was directed by a prominent Soviet scientist, corresponding member of AS USSR Dr. Vladimir Belousov. From 1960 till 1963 Dr. Belousov was in the office of the IUGG President.

On the basis of the Interdepartmental Geophysical Committee in June 1992 the National Geophysical Committee of Russia was formed. The Committee became the national representative of Russia in the IUGG.

From 1993 till 2004 the National Geophysical Committee of Russia was directed by a well-known seismologist, corr. member of RAS Dr. Gennady Sobolev.

On 26 December 2006 by the decree of the Bureau of the Earth Sciences Branch of RAS corr. member of RAS Dr. Alexei D. Gvishiani was approved as the President of the National Geophysical Committee of Russia for the quadrennial 2007–2010.

Mission

The National Geophysical Committee of Russia:

- provides membership of Russia in the International Union of Geodesy and Geophysics, its associations, commissions, and committees;
- represents Russia within international organizations, which coordinate global geophysical projects;
- coordinates the activity of the Russian segment of the World Data System and represents Russia within the International WDS Commission of the ICSU International Council for Science;
- coordinates adoption of new computer and communication technologies technology within the system of geophysical data exchange;
- organizes international and national conferences and workshops for fundamental problems in geophysics;
- assists coordination of fundamental geophysical research in Russia with similar research, carried out in other countries.

Structure

NGC consists of the Bureau and eight Sections: Section of Geodesy, Section of Geomagnetism and Aeronomy, Section of Seismology and Physics of the Earth's Interior, Section of Volcanology and Chemistry of the Earth's Interior, Section of Meteorology and Atmospheric Sciences, Section of Hydrological Sciences, Section of the Physical Sciences of the Oceans, and Section of Cryospheric Sciences.

The NGC Bureau is the main collegial executive body of the Committee. It consists of the Executive Office and the Bureau members. The members of the Bureau are appointed on the Bureau meetings and then approved by the RAS Presidium.

NGC members

Currently (by May, 2011) NGC involves 180 members, including 14 academicians and 21 corresponding members of RAS.

NGC Bureau Executive Office

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Dr. Alexei D. Gvishiani

Member of the IUGG Visioning Committee

IAGA National Correspondent

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Section of Cryospheric Sciences

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NGC Vice-President

IACS National Correspondent

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Membership in IUGG bodies

More than 40 Russian scientists are currently involved in the activity of IUGG associations, committees, and commissions as members and 11 are holding the executive posts. Most of these people are NGC members.

At the 2007 XXIV IUGG General Assembly held in Perugia, Italy, a prominent geophysicist Dr. Alik T. Ismail-Zadeh was elected IUGG Secretary General and a well-known Russian oceanologist, Dr. Eugene G. Morozov was elected IAPSO Vice-President.

At the 2009 meeting of the IUGG Executive Committee held in Melbourne, Australia, it was decided to establish four new IUGG committees: Capacity Building and Education Committee, Committee on Membership Issues, Honours and Recognition Committee, and Visioning Committee. NGC prepared and submitted

nominations for each of the newly established committees. Corr. Member of RAS, Pilot-Cosmonaut of the USSR, IAG National Correspondent Dr. Victor P. Savinykh was elected chairman of the IUGG Honours and Recognition Committee. Corr. Member of RAS, NGC President, IAGA National Correspondent Dr. Alexei D. Gvishiani was elected member of the IUGG Visioning Committee.

Secretary of NGC Section of Seismology and Physics of the Earth's Interior Dr. Aleksei Zavyalov was elected Vice-President of the IASPEI European Seismological Commission (ESC) at the ESC XXXII General Assembly held in Montpellier, France, September 6-10, 2010. The ESC Council approved Moscow as the host for the ESC XXXIII General Assembly 2012.

Conferencing activity

One of the main tasks of NGC is organization of international and national conferences and workshops for fundamental problems in geophysics. Within the 2007–2010 period NGC participated in organization and management of three international conferences, which were also supported by IUGG.

NGC was one of the organizers for the International conference “50th Anniversary of the International Geophysical Year and Electronic Geophysical Year” held in Suzdal, Russia, 16–19 September 2007. More than 100 scientists from 7 countries (France, Germany, Israel, Russia, UK, Ukraine, and USA) participated in this Conference. IUGG provided this conference with financial support. Conference materials and proceedings are available at <http://eos.wdcb.ru/igy50/>.

International conference “Electronic Geophysical Year: State of the Art and Results” held in Pereslavl-Zalessky, Russia, 3–6 June 2009, was organized in cooperation with NGC and supported by IUGG. This conference assembled more than 120 scientists representing 8 countries: Austria, France, Germany, Iran, Russia, Slovakia, Ukraine, and USA. Within this conference an extended NGC Bureau meeting was held. IUGG Secretary General Dr. Alik T. Ismail-Zadeh participated in this conference and NGC Bureau meeting. Conference materials are available at

<http://eos.wdcb.ru/egy/>. Conference proceedings are published by the Russian Journal of Earth Sciences (Volume 10, Numbers 1–6), <http://elpub.wdcb.ru/journals/rjes/>.

NGC was also among the organizers of the International workshop “Artificial Intelligence in the Earth’s Magnetic Field Study. INTERMAGNET Russian Segment” held in Uglich, Russia, 26–28 January 2011. NGC helped the workshop organizing committee to gain financial support from IUGG IAGA. The conference put together the leading scientists and specialists in geomagnetism and magnetic observations from Canada, France, Germany, Hungary, Russia, Ukraine, and USA. At the conference there was a meeting between the institutions of RAS, overseeing the work of the Russian observatories and institutions of INTERMAGNET. On the base of these institutions the installation of new INTERMAGNET observatories is planned, including the institutions of RAS and ROSHYDROMET. Workshop information is available at http://uglich2011.gcras.ru/index_e.html. Workshop proceedings will be published by the Russian Journal of Earth Sciences (Volume 12), <http://elpub.wdcb.ru/journals/rjes/>.

XXV IUGG General Assembly

On behalf of the Russian Academy of Sciences NGC of Russia accredited the delegates for the IUGG Council meeting and IUGG Association plenaries at the XXV IUGG General Assembly in Melbourne. The accredited delegates are listed below:

Dr. Alexei D. Gvishiani, NGC of Russia President, is accredited as the National Delegate at the IUGG Council meetings and as the Delegate at IAGA plenaries;

Dr. Tatiana Y. Khromova is accredited as the Delegate at IACS plenaries;

Dr. Viktor P. Savinykh is accredited as the Delegate at IAG plenaries;

Dr. Roald G. Dzhamalov is accredited as the Delegate at IAHS plenaries;

Dr. Igor I. Mokhov is accredited as the Delegate at IAMAS plenaries;

Dr. Eugene G. Morozov is accredited as the Delegate at IAPSO plenaries;

Dr. Alexander O. Gliko is accredited as the Delegate at IASPEI plenaries;

Dr. Vadim A. Saltykov is accredited as the Delegate at IAVCEI plenaries.

On the occasion of the XXV IUGG General Assembly in Melbourne the National Geophysical Committee of Russia issued the quadrennial National Report 2007–2010. It includes the present report prepared by the NGC Bureau and thematic reports compiled by the members of corresponding NGC sections. This report gives a brief outlook of the Committee activity for the previous four years. Under the direction of NGC the Committee sections prepared quadrennial national reports summarizing the scientific research carried out in Russia in the fields of Earth sciences during the period 2007–2010. These reports are presented at the NGC web-page: http://ngc.gcras.ru/index_eng.html.