

The polar science event of the year!

“POLAR RESEARCH – ARCTIC AND ANTARCTIC PERSPECTIVES IN THE INTERNATIONAL POLAR YEAR”

the SCAR/IASC IPY OPEN SCIENCE CONFERENCE

St Petersburg, Russia, July 8-11, 2008

(in association with the XXX SCAR meeting)

Arctic sea ice is rapidly disappearing in summer. Siberia is warming. Permafrost is melting, turning solid land into slush. The Antarctic Peninsula is warming and 87% of its glaciers are in retreat. Warm air crossing the Peninsula from the west is melting and destroying the ice shelves on the east coast. West Antarctica is warming - the Pine Island glacier there is moving 40% faster than in the 1970s, suggesting possible future collapse of the West Antarctic ice sheet. These are the polar signs of enhanced global warming. They may seem remote. They may, in the north, only affect the 4 million Arctic residents. But given time and the melting of land ice on Greenland and in the Antarctic, every coastal inhabitant will feel the surge of a rising sea.

What is the scientific community doing about all this? We are now in the thick of the International Polar Year 2007–2008, the largest internationally coordinated scientific research programme of the past 50 years. The IPY is a burst of interdisciplinary science focused on the Arctic and the Antarctic, where change is taking place faster than anywhere else on Earth, with regional and global implications for societies, economies and ecosystems. Processes in polar regions have a profound influence on the global environment, and particularly on the weather and climate system. They are also affected by what happens elsewhere – witness the Ozone Hole and the accumulation of chemical pollutants in Arctic animals and people.

Some US\$400 million has been poured in over and above normal research funding to capture more information in the IPY about how the polar regions work, and to provide the scientific basis for refining forecasts of future change. The projects address what the environment and ecosystem is like now; how it is changing, has changed, and is likely to change; how these changes are linked to the rest of the globe; and the impacts on people. The IPY also offers a great opportunity to explore new frontiers of knowledge - like the existence of lakes and rivers beneath the ice – and to use the poles as a vantage point to explore the effects of the Sun on the Earth's outer atmosphere (which interfere with electrical and communications systems), and to explore the cosmos through the clearest, driest air on the planet.

Representatives from many of the 63 countries involved in the IPY will assemble in St Petersburg to exchange new research findings and emerging ideas on these and other exciting polar scientific topics. The Conference will begin with the prestigious Weyprecht Lecture, which will be given by Professor Robin Bell of Lamont-Doherty Earth Observatory in New York, who will explore the enigma of the Gamburtsev Mountains, a massive mountain range of unknown date or origin buried beneath the

ice sheet of East Antarctica. The 4-day meeting comprises 29 sessions, with up to 11 running in parallel on any one day. There are some 1400 attendees, 550 oral presentations, and 670 posters. During the opening session, the 2008 SCAR medals will be awarded to Vladimir Kotlyakov (Russia), Claude Lorius (France), and Angelika Brandt (Germany).

The conference is organized by the Scientific Committee on Antarctic Research (SCAR, see Annex 1) and the International Arctic Science Committee (IASC, see Annex 2). It is co-sponsored by the International Council for Science (ICSU) and the World Meteorological Organisation (WMO), which are the co-sponsors of the IPY. Local hosts are the Arctic and Antarctic Research Institute (AARI) and Roshydromet.

For information about SCAR and IASC see separate briefing notes or contact Colin Summerhayes (cps32@cam.ac.uk) for SCAR, or Volker Rachold (volker.rachold@iasc.se) for IASC

For information about the conference or local conditions contact Alexander Klepikov (klep@aari.nw.ru) of AARI

For registration and the accreditation, please, click [Press registration form](#) at the conference web site <http://www.scar-iasc-ipy2008.org/> download form for the press and send filled form to osc2008@onlinereg.ru

Information about the programme is available also from the SCAR web site at www.scar.org

The press conference will start at 10.30 (the first coffee-break time) in the Red Hall of the Park Inn Pribaltiyskaya hotel and last for an hour. For any questions concerning the media work at the conference contact the AARI press-secretary Sergey Baliasnikov or Ksenia Tkachenko (tel/fax +7-812-352-2735, e-mail press@aari.nw.ru)

ANNEX 1

SCIENTIFIC COMMITTEE ON ANTARCTIC RESEARCH (SCAR)



Media Briefing Note

The Scientific Committee on Antarctic Research (SCAR) is an inter-disciplinary body of the International Council for Science (ICSU). Thirty-four of SCAR's 42 members are the national academies of individual countries, and eight are ICSU scientific unions).

The science carried out or fostered by SCAR scientists is for the most part about knowledge, understanding, and prediction: creating new knowledge by finding out what is there, determining the processes that drive the system, and using that knowledge and understanding to predict how the system may change in the future. SCAR adds value to national scientific activities by addressing topics covering the whole of Antarctica or the surrounding Southern Ocean in ways impossible for any one nation to achieve alone.

SCAR is independent of government, and therefore able to provide high quality, objective and independent scientific advice to the bodies of the Antarctic Treaty System (ATS). SCAR was established in 1958 to coordinate ongoing Antarctic research that began in the International Geophysical Year (IGY) of 1957–58. SCAR is now a major contributor to the International Polar Year (2007-2009). This year is also SCAR's 50th anniversary.

SCAR's scientific research focuses on five topics: the modern climate system and its variability; the ancient climate system and its variability; the response of life to change; the effects of solar disturbances on the Earth's outer atmosphere; and the exploration of aquatic environments beneath ice sheets.

Key recent achievements include:

1. Determining the ecosystem processes of the Southern Ocean and documenting the distribution and trends in seabird populations.
3. Establishing how Antarctic land, lake and pond life respond to change.
4. Discovering a major warming of the Antarctic winter troposphere that is larger than any other tropospheric warming on Earth.
5. Confirming that, while the Antarctic Peninsula has warmed significantly, air temperatures in East Antarctica have remained steady or cooled.
6. Showing that the Larsen-B Ice Shelf collapsed because global warming caused more warm air to cross the Antarctic Peninsula.

SCAR rewards excellence through three medals:

- < the **SCAR President's Medal for Outstanding Achievement in Antarctic Science**: Peter Barrett (New Zealand, 2006), and Vladimir Kotlyakov (Russia, 2008);
- < the **SCAR Medal for Excellence in Antarctic Research**: Paul Mayewski (USA, 2006) and Angelika Brandt (Germany, 2008);
- < the **SCAR Medal for International Cooperation**: David Walton (UK, 2006) and Claude Lorius (France, 2008).

ANNEX 2

INTERNATIONAL ARCTIC SCIENCE COMMITTEE (IASC)



Media Briefing Note

The International Arctic Science Committee (IASC) is a non-governmental organisation whose overall aim is to encourage, facilitate and promote leading edge multi-disciplinary research in the Arctic to provide for greater scientific understanding of the region.

IASC was established in 1990, began operations in 1991 and today comprises 18 member countries. The IASC member organisations are national science organisations covering all fields of Arctic research.

IASC initiates and coordinates research, which is important to the Arctic region as well as to the global community, at a circum-Arctic or international level. IASC activities cover all aspects of Arctic research, all areas of the Arctic region and involve all countries engaged in Arctic research. IASC provides mechanisms to support science development and communicates scientific information about the Arctic to the public through Arctic science conferences, publications and online resources.

IASC is an international associate of the International Council for Science (ICSU) and provides objective and independent scientific advice on issues of science in the Arctic to the Arctic Council and to other organisations. IASC is a major contributor to the International Polar Year (2007-2008).

Key achievements include:

The Arctic Climate Impact Assessment (ACIA) was a project of the Arctic Council and IASC to evaluate and synthesise knowledge on Arctic climate variability, climate change, and their impacts. The ACIA Report is a comprehensively researched, fully referenced and independently reviewed evaluation of Arctic climate change and its impacts for the region and for the world. It has involved an international effort by hundreds of scientists over four years, and also includes the special knowledge of indigenous peoples.

IASC initiated the second International Conference on Arctic Research Planning (ICARP II), which brought together over 450 scientists, policy makers, research managers, indigenous peoples and others interested in and concerned about the future of Arctic research. The Conference was a culmination of a 24-month planning process involving over 140 scientists in 12 Working Groups developing science plans around twelve critical research themes identified by the ICARP II sponsors based upon input from the science and Arctic community at large.

The Arctic Science Summit Week (ASSW) is an initiative of IASC. Since 1999, the annual summit combines science and management meetings of various Arctic organisations and provides opportunities for coordination, collaboration and cooperation in all areas of Arctic science.