

Statement of Dr. John H. Marburger, III
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Subcommittee on Research and Science Education
Committee on Science and Technology
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Chairman Baird, Ranking Member Ehlers, and Members of the Subcommittee, I appreciate this opportunity to appear before you to discuss International Science and Technology Cooperation. Science has always been an international activity, and “strengthening international partnerships to accelerate the progress of science across borders” is an important and explicit priority for Executive Branch departments and agencies.

The National Science and Technology Policy Organization and Priorities Act of 1976 (Public Law 94-282) requires the OSTP Director “[to] assess and advise on policies for international cooperation in science and technology which will advance the national and international objectives of the United States.” OSTP manages this responsibility through an active program coordinated by a full time Assistant to the Director for International Relations. The Assistant to the Director works with the Department of State and all agencies engaged in international science programs, and particularly with the international offices of the National Science Foundation (NSF), Department of Energy (DOE), Department of Health and Human Services (HHS) (including its National Institutes of Health (NIH)), and the National Aeronautics and Space Administration (NASA). She maintains current knowledge of the international issues and activities of these agencies, maintains contact with offices such as the National Security Council within the Executive Office of the President, and meets routinely with the Science Counselors from other countries at the Embassies located in Washington, D.C. Under her coordination, OSTP staff reviews all international Science and Technology agreements.

OSTP is a staff office within the Executive Office of the President, and does not fund domestic or international programs. Such programs are developed and funded by agencies in accordance with the needs and objectives of their missions. Just as science is an intrinsic component of many of those missions, international science cooperation is an intrinsic component of science, and not a separate objective. U.S. diplomatic objectives are established and coordinated by the Department of State. Each agency has its own international affairs officer who maintains contact with the State Department, in most cases with the Bureau of Oceans and International Environmental and Scientific Affairs (OES) currently headed by Assistant Secretary Claudia McMurray and with the Bureau of International Organization Affairs (IO) currently headed by Assistant Secretary Kristen Silverberg. OSTP provides policy guidance and technical support to all departments including the Department of State.

Science policy is necessarily based on input from the science community which comes to Executive Branch policy offices through the agencies that fund their work. The function

of the OSTP-staffed National Science and Technology Council (NSTC), among other things, is to ensure that this information is incorporated systematically in agency plans and programs. The OSTP international program balances this “bottom up” practice with “top down” coordination of formal multi-agency interactions with other countries as described in more detail below. Agencies manage their collaborations and fulfil their commitments under umbrella S&T agreements through their individual international offices.

During the past six years, OSTP has experimented with various arrangements for coordinating agency international science and technology programs. The most successful approach has been one that draws together agencies in meetings focused on specific science topics such as nanotechnology or genomics, or on specific countries such as China or Brazil. The former meetings occur naturally in the NSTC context, the latter occur on the schedule of high-level bilateral commission meetings to review progress under the S&T agreements. The agencies are satisfied with this arrangement, which has been very productive. Nanotechnology provides an excellent example of a successful internationally coordinated program. Through the NSTC Subcommittee on Nanoscale Science, Engineering, and Technology (NSET), OSTP collaborated with the Department of State to establish a Working Party on Nanotechnology within the OECD to advise on emerging issues in science, technology and innovation related to nanotechnology. Today 27 countries participate in this working group. The NSET Subcommittee also facilitates U.S. participation in the OECD Working Party on Manufactured Nanomaterials.

As described in more detail below, OSTP is actively involved in international science and technology affairs in all corners of the globe. OSTP senior management participates in numerous bilateral and multilateral meetings that support U.S. priorities and policies. And OSTP staff maintain strong ties with key technical personnel in other countries.

G8 Science Ministers and Advisors: I meet twice per year with Science Ministers and Advisors from the G8 countries plus the European Union in a format originally proposed by the Carnegie Commission (the meetings are referred to as “Carnegie Meetings” of the Ministers). The meetings are small and informal, and we exchange information on our science, technology and education plans and priorities. We provide updates on relevant government activities within our countries, and address international project coordination or provide direction as needed.

Joint Committee Meetings: In cooperation with the Department of State, OSTP leads bilateral meetings with countries that have high priority for United States objectives. In recent years I have led meetings with China (2006), Japan (2006), Brazil (2006), and Russia (2005 and 2008). A Joint Commission Meeting with India is pending. These meetings bring together senior officials from U.S. technical agencies and their counterparts to discuss joint scientific collaboration. They take measure of what has been accomplished, discuss impediments to cooperation, and outline future opportunities for joint collaboration. OSTP arranges coordination meetings prior to these events, and ensures that agency input is relevant to the aims of the collaboration. Bilateral S&T agreements are highly valued in the international S&T government community, but not necessarily because they provide funding to the international partner. Rather, they bring

focus to the partner's S&T activities and encourage additional funding by foreign governments to their science agencies.

UNESCO: I am a Member of the U.S. National Commission for the United Nations Educational, Scientific, and Cultural Organization (UNESCO). The U.S. re-joined UNESCO during this Administration. The National Commission is a Federal Advisory Committee administered by the Department of State with 93 members from government, academia, NGOs, and industry. OSTP staff support me and the Commission in its science activities. I have also represented the U.S. on each of our delegations to UNESCO General Conferences since U.S. re-entry, 32nd (2003), 33rd (2005), and 34th (2007). I have served in prominent roles at each of these meetings.

OECD: I am equally active in the Organization of Economic Cooperation and Development (OECD) where I have spoken at forums and meetings most recently in March. OSTP leads the delegations to OECD's Global Science Forum, an organization that deals with international cooperation on major science facility projects, among other things.

United Nations: I served as the U.S. Minister-level representative to both phases of the United Nations World Summit on the Information Society (WSIS). Phase I took place in Geneva (December 2003) and the second phase took place in Tunis, Tunisia (November 2005). At the WSIS, the U.S. successfully advocated to keep the Internet independent and effective as a tool for democracy, economic development and social progress. By agreeing to a Declaration of Principles and Plan of Action in Geneva and Tunis, the U.S. reaffirmed its commitment to the importance of the use of Information and Communication Technologies to promote peace, security and stability and to enhance democracy, respect for human rights, open and transparent government and the rule of law.

Fulbright Program: In April 2006 I traveled to Israel to celebrate the 50th anniversary of the Fulbright Exchange Program. While there, I met with Israeli academics and Palestinian researchers and supported cooperation between Israeli scientists and independent Palestinian researchers and other scientists throughout the Arab World. At that time I also traveled to Jordan where I discussed the Synchrotron Light for Experimental Science and Applications in the Middle East (SESAME). SESAME is an important scientific endeavor created under the auspices of UNESCO in 2004 that involves Israel, the Palestinian Authority, Jordan, Pakistan, Turkey, Cyprus, Egypt, Iran, and Bahrain. I also received a briefing by the Director at the Alexandria Library (Bibliotheca Alexandrina) in Egypt, which is an outstanding example of a center that provides a cultural focus for regional discussions on topics ranging from medical research, to peace, to ethics and culture. I have advocated support for such centers in presentations to Department of State sponsored meetings.

IPCC: In 2007, OSTP's Associate Director and Deputy Director for Science, Dr. Sharon Hays, led the U.S. delegation to three important plenary sessions of the Intergovernmental Panel on Climate Change (IPCC). In January, Dr. Hays led the U.S.

delegation to the 10th Plenary Session of Working Group I, held in Paris, France, during which the *Summary for Policymakers* was negotiated and approved for the IPCC report "*Climate Change 2007: The Physical Science Basis*." This report was the contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. In April, Dr. Hays led the delegation to the 8th Plenary Session of Working Group II, held in Brussels, Belgium, during which the *Summary for Policymakers* was approved for the Working Group II report "*Climate Change 2007: Impacts, Adaptation and Vulnerability*." And in November, Dr. Hays led the U.S. delegation to the 27th Plenary Session of the IPCC, held in Valencia, Spain, during which the *Summary for Policymakers* was negotiated and approved for the overall "*Climate Change 2007: Synthesis Report*." These reports are important resources for climate policy formation for all nations, including the U.S.

Earth Observations: The United States plays an international leadership role in Earth Observations, and OSTP supports this activity through the NSTC and the direct involvement of senior officials. Dr. Hays participated at the Group of Earth Observation Ministerial Summit in Cape Town, South Africa in December 2007. I spoke on behalf of the Administration at the inauguration of this program in 2003, and participated in the GEO Summit in Japan in 2004. The U.S. is also a partner in the UNESCO Global Ocean Observing System (GOOS).

WRC: OSTP's Associate Director and Deputy Director for Technology, Richard Russell, was the U.S. Ambassador to the 2007 World Radiocommunication Conference. This UN/International Telecommunications Union meeting brought together all countries of the world plus Nongovernmental Organizations and private industry to review and revise the treaty that governs the use of spectrum globally. The U.S. goals for the conference, all achieved, were to avoid harmful interference to allow systems to work, and to create significant synergies, which reduce the cost of technology and promote the rapid deployment of new technologies and services.

Mr. Chairman, most of the issues OSTP deals with in its role of policy formation, guidance and coordination have an international component. International issues are managed routinely and systematically with substantial interagency communication and coordination, and with the full engagement of the Department of State. I believe the U.S. engagement in international science is intense, productive, and highly successful. I would be pleased to provide more information either now or in greater detail in writing in response to your questions.