Written Testimony
Before the Committee on Science and Technology
Subcommittee on Research and Science Education

by

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Mr. Chairman, Ranking Member Ehlers and members of the Subcommittee, thank you for inviting me to testify before this Subcommittee on the subject of managing international scientific and technical (S&T) cooperation in the U.S. Government. I greatly welcome this opportunity and commend you for your interest in this important subject. I feel strongly that international cooperation in S&T can be a highly effective soft power instrument of a constructive foreign policy. Unfortunately, it is one that is underutilized today.

This subject is also of special interest to the American Association for the Advancement of Science (AAAS). The potential we see for building mutually beneficial ties through science cooperation, particularly with countries where political tensions may prevent normal relationships, was a primary motivator for the recent establishment of the AAAS Center for Science Diplomacy. This was announced by our CEO Alan Leshner before this very Subcommittee on July 15, 2008.

Testimony Highlights:

In the spirit of full disclosure, I must confess that the many benefits I have personally seen during 45 years of experience in this field have made me an unapologetic zealot regarding international S&T cooperation. It also seems clear that we at AAAS and the

Subcommittee are very much in agreement about the value of such cooperation. But it is essential to try to establish the right machinery and mechanisms to implement it. First, I think that creating a focal point for international S&T cooperation at the level of the Executive Office of the President is very desirable; and that re-establishing the Committee on International Science, Engineering and Technology (CISET) under the National Science and Technology Council (NSTC) CISET committee will provide an appropriate body for that purpose. This new CISET must effectively interact with the National Security Council (NSC) and the State Department in its foreign policy dimensions and with all the S&T agencies of the federal government in its technical substance. Its effectiveness will depend in large part on an Office of Science and Technology Policy (OSTP) that is well integrated into the NSC process and has a high level of staff competence in the international arena. Finally, there needs to be established some dedicated funding appropriated for international S&T cooperation in order to give CISET some real substance to focus on and opportunities to impact directly the decision-making process.

Although it is likely that a CISET could be established by the NSTC without a legislative mandate, I would support the legislative route that is being proposed by this Subcommittee, especially as it would demonstrate strong Congressional interest in this subject. This interest, however, must be seen as a way to strengthen such cooperation and to optimize its benefits for science as well as for U.S. foreign policy and for enhancing U.S. relations around the world. It must not become another security gate focused on export control regimes or visa-like barriers to interactions with other countries. I think one must be aware of these dangers and actively guard against them.

CISET's Functions and Responsibilities

Historical Perspective. When I became the S&T Advisor at State in 2000, CISET existed under the NSTC. I was intrigued with such an instrument and even thought that perhaps it would be appropriate for me to chair a meeting, although it was not resolved at State whether the Science Advisor or the Assistant Secretary for OES would be most appropriate. However, I recall only one such meeting being held, chaired by the OSTP

director or his deputy. It consisted essentially of a recitation of the international activities of one or two agencies, there were no action items, no follow-on and I am unaware of any other meetings in my three years at State. In other words, the Committee seemed to do very little, left no mark, and had little reason to exist.

My point is that if there is going to be a CISET, it has to be well staffed and have a clear role. Certainly it should serve as a focal point for knowledge of what the agencies are doing internationally and for exchanging information among agencies. There will be important chances for such coordination, particularly as we move forward on big, multi-agency issues such as global climate change, energy, infectious disease, security, etc.

With respect to setting priorities, however, the function and role of CISET becomes a bit murkier. There are two kinds of priorities--foreign policy priorities and priorities for advancing basic or applied research. Science cooperation in support of foreign policy priorities is science diplomacy; and international cooperation for the benefit of science is essential for dealing with global problems and it often requires diplomatic support when multiple governments are involved.

First, let's address science cooperation for foreign policy. At the present time, there is a modest U.S. government effort underway to extend a hand toward Syria. On a non-government level, we at AAAS are exploring whether S&T cooperation can be part of our future relations with Syria (of course, in consultation with the State Department.) Based on our 90-minute meeting with President Assad, we think that a closer relationship in science may be possible. But the next step is to determine whether S&T cooperation with Syria should be a priority for the U.S. government. A problem is that as a committee of S&T agencies, CISET cannot determine the priority countries based on foreign policy considerations. That guidance must come from the State Department and the NSC. And if that guidance is positive, then the CISET mechanisms can be used to develop coordinated agency responses for possible projects. It would also be useful to have a source of funding outside present agency research and development (R&D) budgets to undertake the projects. But more about that later.

Secondly, there are also priorities for the scientific projects to be carried out, and I believe there is an important role for CISET in setting the substantive priorities for cooperation—particularly if they involve big projects or big money, such as nuclear fusion, carbon sequestration, ocean observation, environmental degradation, desertification—many of these summarizable in two words: global warming. Such coordination at the NSTC level is vital, especially when the budgets to support such activities cut across several agencies, requiring cross-cutting decisions that have long been under OSTP purview.

Finally, the draft legislation assigns the planning of international STEM activities to CISET. Clearly, CISET could serve as a constant reminder to the federal agencies of the potential for international cooperation and alert them to opportunities that should be vetted by them. However, planning a program is, I believe, a bridge too far for CISET. The planning of programs by CISET is only possible at the very broadest level of consideration. In general it seems unlikely that CISET could plan agency activities without the ability to provide funds specifically designated for those activities.

CISET's Relationship with Agencies and State Department

It is necessary in the legislation to distinguish between the role of CISET and the roles of the S&T agencies and the State Department in developing and executing cooperation with other countries. CISET is not an operating body and cannot replace State or the agencies in negotiating agreements with other countries or their technical communities. Just as we talk about partnerships between the U.S. and other countries, there must be a close partnership among the CISET staff, the agencies and the State Department, if the CISET concept is going to work effectively. This will be dependent on the character and qualifications of the people involved, but would be greatly facilitated if CISET in fact controlled some funds designated for international science cooperation.

Regarding the role of CISET in relationship to the agencies, there must be a value provided by CISET or it will be ignored by the agencies or seen only as another

bureaucratic nuisance from above. An important service CISET could provide to the agencies would be as an advocate with OMB and the President for adequate funding to take advantage of international opportunities. When those opportunities are of a foreign policy benefit, the funds should be made available to the State Department as part of the funding for foreign affairs—not foreign assistance--to be transferred to the appropriate agencies based on a decision in CISET of the merit of the opportunity.

Role of NGOs

We believe that non-profit organizations like AAAS can also be valuable in carrying out cooperative projects—particularly those of modest size built on promising the best science possible, even though chosen for the purpose of building new international relationships—in other words, for foreign policy reasons. For instance, the National Academy of Sciences (NAS) has been involved in a series of mutually beneficial scientific workshops with Iran over the past eight years, achieving a remarkable level of engagement with Iran's science community. AAAS has also been involved in this activity. But one must be careful what funds are used for such programs and what rhetoric accompanies them. When State declared that it had funds for NGOs to focus on fostering democracy in Iran, it resulted in the arrest and detention in Iran of a number of Iranians and Iranian-Americans suspected of using State Department money to conspire against the Iranian Government.

Funding International S&T Cooperation

Let me finish by once again touching on the subject of funding international cooperation. I recognize that appropriations are not the work of this Subcommittee, but I can say from many years of experience that the full potential of international S& T cooperation has been greatly constrained by a lack of funds. There have been discussions by several NGOs about the creation of a global science fund. But as one gets into the details of how much and to whom and for what purpose it should be expended, and who makes the decisions, the issue becomes quite complicated. We need some experiments, some pilot projects—a heuristic approach to the problem.

As a first step, a line item in the State Department budget designated for international S&T cooperation could be established in the range of $25-40M and disbursed based on decisions emerging from CISET. These funds could be distributed to a variety of institutions for carrying out the projects.

For instance, funds could be provided to a single or a set of NGOs for specific projects. Funds could also go to the federal S&T agencies to augment their own project funds and enable an international dimension to a project which otherwise might be impossible or to enhance an already internationalized program and improve its chances for success. Another good use of these funds could be a transfer to the National Science Foundation (NSF), which would be able to fund NGOs or universities in both the U.S. and abroad for cooperative basic research projects of high merit between U.S. and foreign institutions, which otherwise would not be possible. The State Department would provide guidance regarding country or regional priorities. Programs could also be established to send American professors as visiting scholars in foreign universities that are being newly built or expanded as developing countries are increasingly recognizing tertiary education as a vital aspect of their own development plans.

Most importantly, as the U.S. continues to establish science agreements with other countries, whether as political deliverables or simply because they promise scientific benefit to both sides, there must be some funding to follow-up on these commitments. It is not acceptable for the U.S. to be unable to respond, even when the other country has been perfectly willing to pay its side of the project. And putting a modest amount of money under a CISET decision process and into the State Department's budget would guarantee close cooperation between the two institutions. It would also assure a high-level focus on science cooperation that will involve the NSC and the President and also be of great interest to the agencies whose international ambitions in the past have been stymied by their domestically focused missions, a lack of sufficient funds, or timid leadership. They would be effectively brought into the international arena and because of CISET's oversight role and data collection responsibility would also be well monitored and the results more measurable than they have often been in the past.

Conclusion

I firmly believe that every consideration should be given by this Subcommittee to work with the appropriators and foreign affairs staff to create and secure sufficient funding for a pilot program of this kind. It has the potential to make a huge change in the effectiveness of our international cooperation abroad and the ability to respond to opportunities that will be of great value to this country's scientific, technical and education community. It will also make CISET an important and respected institution and bring high-level visibility to international S&T cooperation as the effective soft power instrument of foreign policy that it can truly be.

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Norman P. Neureiter was born in Illinois and grew up near Rochester, New York. He received a B.A. degree in chemistry from the University of Rochester in 1952 and a Ph.D. in organic chemistry from Northwestern University in 1957. He spent a year ('55-6) as a Fulbright Fellow in the Institute of Organic Chemistry at the University of Munich.

In 1957, he joined Humble Oil and Refining (now part of Exxon) in Baytown, Texas as a research chemist, also teaching German and Russian at the University of Houston. On leave from Humble in 1959, he served as a guide at the U.S. National Exhibition in Moscow, subsequently qualifying as an escort interpreter for the Department of State. In 1963, he joined the International Affairs Office of the U.S. National Science Foundation in Washington and managed the newly established U.S.-Japan Cooperative Science Program. Entering the U.S. Foreign Service in 1965, he was named Deputy Scientific Attache at the U.S. Embassy in Bonn. In 1967, he was transferred to Warsaw as the first U.S. Scientific Attache in Eastern Europe with responsibility for Poland, Hungary and Czechoslovakia.

Dr. Neureiter returned to Washington in 1969 as Assistant for International Affairs to the President's Science Advisor in the White House Office of Science and Technology. He left the Government in 1973 and joined Texas Instruments (TI), where he held a number of staff and management positions including Manager, East-West Business Development; Manager, TI Europe Division; Vice President, Corporate Staff; and Vice President of TI Asia, resident in Tokyo from 1989-94.

After retirement from TI in 1996, he worked as a consultant until being appointed in September 2000 as the first Science and Technology Adviser to the U.S. Secretary of State. Finishing the 3-year assignment in 2003, he was made a Distinguished Presidential Fellow for International Affairs at the U.S. National Academy of Sciences. In May 2004, he joined the American Association for the Advancement of Science (AAAS) as the first Director of the new AAAS Center for Science, Technology and Security Policy (CSTSP), funded by the MacArthur Foundation. Dr. Neureiter is married with four children and speaks German, Russian, Polish, French, Spanish and Japanese.

Dr. Neureiter was named 14 January 2008 to receive the Public Welfare Medal, the highest honor of the National Academy of Sciences.