I am Dan Mote, President of the University of Maryland, and I thank you for the opportunity to speak today at the Export Control Task Force Meeting. Export Control regulations affect the university research enterprise that has made our country great and the security and future economic and scientific leaderships of the nation. It is essential that we get it right. U.S. research universities are eager and willing to participate as partners in this effort.

Maintaining the security of the exemplary research taking place on our campus and in universities all over the country is a number one priority for all of us. Even before 9/11, assuring the security of our research has been extremely important to all academic leaders.

Five years ago the University of Maryland instituted an export control compliance program with thorough and ongoing reviews of our research through our Office of Research Administration and Advancement and our Office of Legal Counsel. Every faculty proposal is processed for export control concerns and resulting decisions are documented. Since January 2004 alone, 30 seminars for 400 faculty and others have been offered to assure that our faculty are up-to-date on required rules and regulations. Our reviews cover ITAR, EAR and OFAC regulations, conduct of research and shipment of equipment abroad.

Through these reviews, university contracts and subcontracts with industry have been affected. For example, a graduate student from India was denied access in December 1999 to a NASA project on the global monitoring for tree heights by satellite. In another case, when we determined that our Deep Impact project (which sent a projectile to collide with Comet Tempel 1) required the disclosure of ITAR-controlled information, it took months to convince the regulators that research could be compartmentalized and to gain approval to limit access to that information to the principal investigator of the project, a University faculty member. A federally-sponsored project required a meteorologist at the University of Maryland to send twelve pieces of equipment overseas to measure in-coming ultraviolet radiation. Although none of the equipment ultimately was deemed to require a license, it took the University 6 months and 90 hours of attorney and faculty clock-time to obtain confirmation from BIS that none of the equipment required a license as a condition for sending it abroad. I am certain these are not isolated events.

Recently, our dean of the College of Computer, Mathematical and Physical Sciences was not allowed into a Computer Science lab because he is a foreign national,
born in Canada. The problem was eventually resolved. However, when you consider that over 50% of the University engineering faculty plus the dean of engineering are foreign born and that 52% of the engineering graduate students are foreign nationals and 45% of the science graduate students plus the dean are foreign nationals, you begin to get a picture of what restrictions on foreign use of equipment mean in today’s research university. In 2001, 57% of the post-doctorate researchers in all science and engineering fields in the U.S. were foreign born. The implications of these figures in export control situations are obvious.

Of course we know that compromise is necessary for purposes of national security. We know we must be prepared to sacrifice some U.S. innovation, U.S. competitiveness, and our national research and technology strengths for security - when it is necessary. However we don’t want to sacrifice our security in the name of security.

I find myself concerned with the question: Is all this necessary? It remains difficult for those of us deeply enmeshed in research to see that it is.

Our specific concerns are as follows:

1. **What is the real problem and what are the real costs of licensing?**

   I have not been able to identify a national security problem that justifies the potentially draconian restrictions to fix it. I do not have even one example in mind of a graduate student who has undermined national security through operation of a sensitive piece of equipment. I question the massive pressure on our research enterprise that would be the consequence of the proposed draconian fix.

   While some have said that the instances in which universities will need to obtain a license for foreign students to use controlled equipment will be few, nothing in the rhetoric or the documents supports that view. The Commerce Control List has been around for decades and has not been cleansed of obsolete technologies, let alone modified to focus on truly sensitive equipment. We have all had experiences with solutions looking for a problem. This may be one of those cases. The difference in this case is the solution could be crippling, and much worse than even the perceived problem.

   We desperately need a risk analysis that looks at the real threats and the real costs to government, government laboratories, industry and the nation’s universities before changes in “use” of controlled equipment are made.

2. **What is the meaning of compliance?**

   The administrative burden is mind boggling to think about. On the federal side there will be the burden of licensing and updating lists of controlled equipment to reflect the new technologies that are identified weekly in Science Magazine reports and of deleting decades-old technologies that are so common as not to warrant retention on the control list. The amount of work it would take to maintain an accurate control list and
address the multitude of license issues is nearly incomprehensible if you think about all the federal laboratories like NIH that have hundreds of foreign nationals working in and around laboratories with state of the art equipment, as well as commercial enterprises and our 3,500 universities and colleges, plus flight schools and other technical training facilities. One wonders if such a system could ever work well.

The administrative burden for universities is also a large problem, although neither a new nor the greatest problem. The problem for universities is the disruption of the research programs. We cannot run a research program where a two-to-three month delay is necessary because of requirements (a) to categorize each piece of equipment under the EAR, (b) to identify the nationality of each user of each piece of equipment, (c) to evaluate the nature of how each foreign national will “use” each piece of equipment and possibly (d) to obtain a license for individual foreign nationals to make particular uses of individual pieces of equipment. This assessment could happen more than once during the course of one person’s doctorate or post-doc because of the dynamism of the lists and the course of research. This type of interruption clearly is a problem for federal labs, too.

3. Is it possible that the Inspector General’s opinion in the March 2004 report to Congress on export controls is based on an incorrect premise?

The risk to our national security from international students/scholars who have been cleared through the visa/visa mantis procedures is not clear and has not been demonstrated in the materials made available or through other conversations. What is clear is that the high cost of implementation to universities, federal labs, and the Commerce Department appears unnecessarily onerous. None of us can afford it. And none of us should undertake the high cost of implementation without a risk analysis. The cost to the U.S. research enterprise, which is already under enormous pressure because of increasingly diminished funding, is very high. There seems to be a lack of appreciation of just how vulnerable U.S. research is to foreign competition and to its export overseas.

We have seen a drop in international applications again this year. Nationally the numbers were down 28% last year with a loss of an additional 5% this year. International applications at the University of Maryland were down 37% last year and another 5% this year. In five years, 90% all scientists and engineers in the world will be in Asia. Right now, a multinational corporation such as Intel does 75% of its business overseas, and that percent is growing. We are not the only game in town anymore. We need to use extreme caution when imposing unnecessary barriers to our competitive position. This is especially true when many corporations do not advise customers of the export control classification of their equipment products and do not inquire as to the nationality of purchasers of their equipment.

RECOMMENDATIONS:

1. Define the problem sharply and greatly narrow the list/scope of controlled technologies.
a. Examine each technology in a risk/benefit analysis
b. Create and maintain an up-to-date control list by regularly deleting public technologies and adding new protected ones as needed. (Currently each piece of equipment is reviewed for classification every time a request for review is received because there is no database of commodity classifications).

2. Delete all equipment/technology from the list whose manuals are available in the public domain, in libraries, over the internet, or from the manufacturer.

3. Delete all equipment that is available for purchase on the open market from foreign companies overseas (I suspect most equipment on the list will fit this category).

4. Clear foreign students and visiting scholars for access to controlled equipment when their visa is secured (or shortly thereafter) so that the decision to authorize access to university academic programs is related to the issue of foreign student and scholar use of controlled equipment. Though this might delay use of controlled equipment for 2-3 months, if started soon enough it could be workable, even if costly.

References:


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