THE EXPORT ADMINISTRATION ACT: THE CASE FOR ITS RENEWAL

TUESDAY, JUNE 12, 2001

HOUSE OF REPRESENTATIVES,
COMMITTEE ON INTERNATIONAL RELATIONS,
Washington, DC.

The Committee met, pursuant to call, at 2:30 p.m. in Room 2172, Rayburn House Office Building, Hon. Henry J. Hyde (Chairman of the Committee) presiding.

Chairman HYDE. The Committee will come to order.

We are very pleased to welcome our two panels of very distinguished witnesses before our Committee this afternoon in the second in a series of hearings on the Export Administration Act and our nation's export control system.

We will ask each of our witnesses to make brief opening remarks on the strengths and weaknesses of our current system and on the need to bring it in line with the challenges facing us in the new century.

We would welcome any comments they might have on the case for the reauthorization of the act, taking into account its importance to our economic well being and national security interests.

Protecting these interests should, in my view, not take a back seat to ensuring that our companies remain competitive in the global marketplace.

In our last hearing on May 23, we discussed the role that the multilateral export control system played in helping to slow the pace of military modernization in the former Soviet Union. Today's more diffuse security challenges dictate that we put such a system back in place.

Not only do we face a growing proliferation threat from countries on our terrorism list, such as Iran, Iraq, Libya and North Korea, but we also confront a resurgent China—a country whose marketplace attracts our high-tech companies and whose military build-up concerns our defense planners.

In short, we face the twin challenges of upgrading our new multilateral export framework—the Wassenaar Arrangement—to keep dangerous weapons and technologies out of the hands of so-called rogue and pariah states and of ensuring that effective controls are in place to confront a growing technology transfer risk inherent in our commercial and economic relationship with China.

Some would point out that other key members of the new Arrangement, including our key trading European and Asian trading competitors, do not share our assessment of the transfer risk to

this country and consequently maintain far less restrictive export controls.

Does this mean that we should be no less active in pursuing new or modified multilateral export controls efforts to slow the spread of dual-use technologies and goods to China and other potential adversaries?

Or for that matter, should we be any less insistent that this Administration pursue a more rigorous license review process for this market where, I am told, the same manufacturing plant often contains assembly lines that produce both civilian and military products?

In our first and second panels this afternoon, we are privileged to have a number of experts who have tried to answer these difficult questions. While their responses might not be the same, we can surely benefit from their insights and experience in defining our multi-faceted relationship with China.

I am particularly pleased to welcome Senators Phil Gramm, Fred Thompson and Congressman Cox before our Committee. They are three Members who, of course, need no introduction to the export control debate and to the potential foreign policy and security challenges in our evolving relationship with Beijing.

As the chair of the former Select Committee on U.S. National Security and Military/Commercial Concerns with the People's Republic of China, Chris Cox has testified on numerous occasions on the Chinese technology acquisition program and on the fact that it has multiple civilian and military uses, including in the dual-use area. I might add that he has strongly argued that the EAA and current export control system should be reauthorized.

Chris Cox is the Chairman of the House Policy Committee and is a Member of the Committees on Energy and Commerce and on Financial Services. He is the highest ranking Californian in Congress and is the only Californian in the elected leadership of the House. On April 24, he released the *Report of the Study Group on Enhancing Multilateral Export Controls* that proposed a sweeping reform of export controls.

Fred Thompson, in his capacity as the former Chairman of the Senate Governmental Affairs Committee, has held countless hearings and meetings on these same vitally important issues and he has been an eloquent voice in the long-standing Senate debate on the EAA and on the pending reform legislation, S. 149.

In addition to being the ranking Republican on the Governmental Affairs Committee, Senator Thompson serves as a Member of the Senate Committee on Finance and the Senate Select Committee on Intelligence and the National Security Working Group. He has appeared in 18 motion pictures and is the author of the Watergate memoir, *At That Point in Time*. His insights and views are most welcome.

Senator Phil Gramm is currently serving his third term and is the Ranking Member of the Banking Committee.

His legislative accomplishments include landmarks bills modernizing the banking, insurance and securities laws in the Gramm-Leach Act; reducing Federal spending and mandating the Reagan tax cut in the Gramm-Latta legislation; and imposing the first binding spending constraints on Congress in the Gramm-Rudman

Act. Of course, he continues to play a crucial role in shaping the debate on the EAA, on S. 149, the "Export Administration Act of 2001" and the future of our export control system.

Before turning to our witnesses, I would ask if the Ranking Member, Mr. Lantos, has a statement.

Mr. LANTOS. Just a word or two. [Inaudible.]

Chairman HYDE. Thank you Mr. Lantos.

Mr. Gramm.

[The prepared statement of Chairman Hyde follows:]

PREPARED STATEMENT OF THE HONORABLE HENRY J. HYDE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ILLINOIS, AND CHAIRMAN, COMMITTEE ON INTERNATIONAL RELATIONS

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STATEMENT OF THE HONORABLE PHIL GRAMM, A U.S. SENATOR FROM THE STATE OF TEXAS

Mr. GRAMM. Mr. Chairman and Congressman Lantos, it is a great privilege for me to be here today.

In considering export controls, America has tried to pursue two objectives simultaneously that to some degree arehcomplimentary, but to some degree they arehin conflict. We want to dominate the in terms of high-tech production and technology. We want to be the world's science leader. We want to develop the technologies that will both carry the future of economic production and maintain our position as the world's greatest power. And to do those things, we want to produce and sell high-tech items on the world market.

On the other hand, as the world's only superpower, as a nation that depends on high-technology as anhintegral part of its national security commitment, we want to protect those items that have a substantial impact potentially on our national security, and protect those items where our actions might actually prevent would-be hostile nations from acquiring and potentially using that technology against us.

The Export Administration Act is our effort to try to bring together those competing goals. We have written a bill in the Senate Banking Committee, which has exclusive jurisdiction in this area, twice—basically the same bill. At the end of the last Congress, we reported a bill unanimously. In this Congress, we reported a bill, 19 in favor, 1 in opposition.

Our bill is a substantial improvement over current law. I believe it is superior in every way. And the place where it's superiority is most evident is in the underlying logic of the bill. We recognized that where technology is generally available, where you can gohinto the Radio Shack and buy it, where it is readily available from numerous competing sources on the world market, that while we might wish that that technology were not available, while we might wish that it could be kept out of some hands, the reality is that it can't.

We currently have a system which, when it was in full operation prior to expiring, approved 99.4 percent of the applications that were submitted. I would submit to you, Mr. Chairman and Members of the Committee, that a process that approves 99.4 percent of applications is not a process that is being very selective about the applications that it reviews.

We listened to numerous people and commissions. We studied and had hearings related to the Cox Commission report. We employed both the people that were involved and the findings of the Weapons of Mass Destruction Commission. We were very active in working with the Defense Science Board Task Force on Globalization and Security. And we tried to write the findings of those reports, to the best of our ability to ascertain them, into this new bill.

We made a decision that if technology was readily available, sold on a competitive basis on the world market and mass marketed, that we would not try to control it; that we would in essence, build a higher fence around a smaller number of items that were more critical and more controllable.

Secondly, we strengthened the Defense Department and the national security agencies in the review process. We gave one agency in the review process the ability to object and to move the decision process one level higher—a strength of dissent that had never existed in the process before.

We gave the President a unilateral national security waiver, so that if a technology is readily available, if it is sold on the world market, if you can buy it in Radio Shack in Germany, and the President concludes that, for national security reasons, that technology should be protected, we protect it.

We have a process that we believe is workable. It has checks and balances. And we believe that it will dramatically improve both our national security protections and our ability to compete on the world market.

We also set up a process to encourage multilateral export controls which ultimately holds the key to our security in the future, in my opinion.

But I want to conclude by simply reading several statements from people who appeared before our Committee and who have made important statements on this issue. And let me start with our dear friend Chris Cox, and I quote, "We ought not to have export controls to pretend to make ourselves safe as a country."

The one thing we decided in our bill was that we were not going to do any feel-good things. If they did not have a real impact; if they could not contribute to American security, that we were not going to play games with them.

John Hamre, the former Deputy Secretary of Defense, said, "Too much of our export control resources are devoted to licensing relatively benign transactions, diverting resources away from far more important and dangerous transactions." That is the focus of our bill. If it is readily available, if we cannot control it, leave it alone. If it is not readily available, if it can be controlled and if it is powerful and potentially dangerous technology, build a wall around it and impose stiff civil and monetary fines.

Finally, Frank Carlucci, former secretary of defense, former national security adviser: "But we should only do that which has an effect, not that which simply makes us feel good."

And I believe, Mr. Chairman, that in this debate, our biggest challenge is dealing with a world where high-technology items are traded on a mass basis, where research is occurring throughout the developed nations of the world; and we have to therefore focus on what can be controlled.

And in doing so, I believe that we can strengthen national security and we can promote the commercial interests of America, and we can assure that when new technologies are developed in the future, that they will be developed by Americans, that we will have their use first and that we will have an opportunity to control that technology and prevent would-be adversaries from using it.

[The prepared statement of Mr. Gramm follows:]

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To do those things, we want to produce and sell high-tech items in the world market. On the other hand, as the world's only super power, as a nation that depends on high technology as an integral part of its national security, we want to protect certain items and prevent would-be hostile nations from acquiring and potentially using the technology against us.

The EAA is our effort to try to bring together those competing goals. We have twice written a bill in the Senate Banking Committee, which has exclusive jurisdiction in this area. It is basically the same bill, with some improvements made to this year's bill. In the last Congress, the committee reported the bill unanimously. In this Congress, we reported the bill with 19 members in favor and one in opposition.

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We had a system that, while it was in full operation prior to expiring, approved 99.4 percent of the applications for export licenses that were received. I would submit that a process that approves 99.4 percent of applications is not a process that is very selective about the applications being reviewed.

We listened to numerous people in commissions. We studied and had hearings on the Cox Commission report. We heard from the people that were involved in the weapons of mass destruction commission. We were very active in soliciting the views of the Defense Science Board Task Force on Globalization and Security. And we tried to incorporate the findings of those reports, to the best of our ability to ascertain them, into this new bill.

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Chairman HYDE. Thank you, Senator Gramm.

Senator Thompson?

STATEMENT OF THE HONORABLE FRED THOMPSON, A U.S. SENATOR FROM THE STATE OF TENNESSEE

Mr. THOMPSON. Thank you very much, Mr. Chairman, Mr. Lantos. I appreciate the opportunity to spend a few minutes with you here today.

Mr. Chairman, I think both you and Senator Gramm have set out the balance that we are striving for here, between taking into consideration the fact that we are living in world of expanding technology on the one hand, and that we are living in a world of increasing dangers from that technology on the other hand.

We know from the Rumsfeld Commission, from the bi-annual CIA reports, the Cox Committee's work, that the countries to which we intend to promote additional trade in these dual-use items are consistently proliferating weapons of mass destruction. We saw the story today with regard to Cuba. The Chinese misrepresent what they are doing and not doing, but they are posing a threat. As we consider missile defense and the threat posed to us from rogue nations, and as we even consider the Iran and Libyan Sanctions Act, we should ask ourselves whether or not it makes sense to impose sanctions and erect missile defenses while at the same time selling sensitive, enabling items to the countries that are supplying the rogue nations, which is what is happening.

I agree with Senator Gramm: We do not want to continue to try to protect things that are not protectable; the world is changing. I am not wed to the concept that MTOPS is the only metric, for example, to try to regulate our supercomputers. But I am not of the school that because we cannot regulate everything, that we cannot control anything. I strongly disagree with that.

Mr. Chairman, my concern is this: we are getting ready to engage in a pretty substantial deregulation of very sensitive items, that will in turn be sold to countries who are proliferating around the world. This will happen based upon anecdotal evidence and people's conclusions, but not without any additional research as to what's going to happen as a result of this. One of the recommendations of the Cox Committee was to conduct a comprehensive review of the national security implications of exporting high-performance computers to the PRC, for example. The Committee also directs the intelligence community to conduct an annual comprehensive threat assessment of the national security implications, et cetera, of our exports. That is what I would like to see done despite all of the business interests on behalf of this bill. Senator Warner, Senator Helms, Senator Shelby, Senator Kyl, Senator McCain and myself, we are in the distinct minority in the Senate, there is no question about that. There is a great deal of commercial pressure on the side of pushing the Export Administration Act on through. I regret that the Administration in trying to organize itself, and, having only a few people in some of these key departments, has taken the position that they have. I wish they would take a little time to operate under and study the current system before endorsing a brand new system. But in the opinion, I think, of several of us, there has not been an honest broker or an objective consideration of the implications of what we are getting ready to do in passing this Export Administration Act.

For example, we are engaging in the establishment of a brand new category of exemption called mass marketing. In short, anything that is delineated as mass marketed would be deregulated, meaning you would not even have to have a license to export it. In concept, I do not have any problem with that. The question is how do you make that determination, and who makes it?

The fact of the matter is that the Commerce Department—in this national security area of such sensitive technologies—is the department with the whip hand with regard to this. Commerce is required to consult with other departments, but it is the Commerce Department, essentially, making the mass marketing, foreign availability, and other decontrol decisions.

We talk a lot about our European friends and allies that if we do not sell these items abroad, our friends will give it to them. I was looking recently at a publication, the *Daily Report for Executives*, dated February 27th of this year, and it talks about the E.U. filing a formal complaint with the U.S. over relaxation of controls on computer exports. It says that the European Union has lodged a formal protest with the United States over its decision announced in January to relax control on exports of high-performance computers to countries such as Russia and China, arguing that the United States failed to properly notify the E.U. in advance as re-

quired under the multilateral agreement known as the Wassenaar Arrangement.

So while we are saying that our allies are selling if we do not, we are actually decontrolling more rapidly than our allies in the Wassenaar Arrangement are agreeing with, and then we are saying, "Well, it is already out there, we might as well decontrol some more or our allies will then do it." I do not think that we have been totally objective in our analysis of our relationship with our allies, or fair to them in that respect.

If we do not make these items subject to license, we are going to lose the ability to monitor them, that is, the ability to keep track of what is going to various countries so that we can do a national security and cumulative effects assessment.

What the pending bill would also do is repeal other legislation that we have had on the books for a couple of years now. The 1998 National Defense Authorization required a national security assessment. We had the GAO testify recently that that has never been done, even while the previous Administration was raising MTOPS control levels on supercomputers. We went from 2000 MTOPS to about 80,000 MTOPS, the level at which you need a license, within 1 year with no national security risk assessment. So that is before this bill as well. That was in the last Administration. And so now we are just picking up where that left off.

The President does have some prerogatives in this bill. I think some changes have been made that are improvements from the original drafts that I have seen. But, for example, if the President wants to intervene and set aside a decontrol determination made for foreign availability reasons—even though the Commerce Department has made that determination—the President has substantial hurdles to go through to make this happen.

First of all, none of these decisions—I think I am correct in saying that none of them—can be delegated by the President. The President himself must get involved, which, of course, creates a dampening effect. But before the President can set aside a decision, he must report to Congress, he must pursue negotiations with the foreign entities, he must notify Congress about the negotiations, he must review it every 6 months, he must notify Congress again, and then if all of that fails and there is not a high probability that it is going to work out, then the foreign availability determination of the Commerce Department kicks back into effect and the item is decontrolled. In other words, in 18 months, if there is no agreement with a foreign entity, the item is decontrolled regardless of its impact on national security or foreign policy. In short, the process is heavily weighted, Mr. Chairman, in favor of the Commerce Department over the discretion of the President of the United States.

I am not opposed to the reauthorization of this act, I think it ought to be. I think that something of this importance deserves our attention and it ought to be done. But in some areas, to have these additional blanket determinations made by the Commerce Department, with difficulty on behalf of the President; having a review procedure that does not prevail on the defense side of things; asking departments to get their act together within 30 days and all that; I think this is all problematic.

There are clearly some things that we can do to make the system work better, and I am all for that because that's the real issue here. I am second to no one, I do not think, in terms of my business record, at least what I think in terms of good business; and I would want to improve the process. But the fact of the matter is, there is no crying need out there for the immediate reauthorization of this bill under these circumstances, when everything that is going on out in the world today which is so disturbing to us, and we are saying we need a national missile defense system because of it.

The exports to controlled destinations constitute about 2 to 3 percent of our exports. The China market for high-performance computers is less than 5 percent of our sales abroad. Obviously, there is a potential big market out there.

We do not want to unduly hamstring that market, but when we have been told by the Cox Committee, for example, that the People's Republic of China is diverting U.S.-built high-performance computers for unlawful military applications and that high-performance computer diversion for PRC military use is also facilitated by the steady relaxation of U.S. export controls on the sales of high-performance computers, we need to be very sure that we have the right referrees and that we make a determination up front of what the significance of this decontrol in these major areas is going to mean to our country.

Thank you very much.

Chairman HYDE. Thank you, Senator.

Representative Cox.

STATEMENT OF THE HONORABLE CHRISTOPHER COX, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mr. COX. Thank you very much, Mr. Chairman. I thank the Members of the Committee also for being here and, most importantly, for undertaking this topic.

With President Bush in Europe meeting with our NATO allies, the European Union and the president of Russia, it is entirely fitting that we are here to discuss the Export Administration Act. It is a crucial element in what the President has described as our new security framework.

We need, of course, a missile defense that will protect all 50 States, our allies, our friends and our forward deployed forces and that is much of what the President is going to be talking about in Europe. But just as importantly we also need to ensure that we are doing everything that we can to prevent the proliferation of weapons of mass destruction, including nuclear weapons, chemical weapons, biological weapons, and the means to deliver them.

Tomorrow, the Policy Committee of which I serve as Chairman, and of which, Mr. Chairman, you used to serve as Chairman, will issue a policy statement on missile defense. Two years ago, an overwhelming bipartisan majority of Congress formally declared in legislation that it is the national policy of the United States to deploy an effective national missile defense as soon as it is technologically feasible.

This national policy is now enshrined in the "National Missile Defense Act of 1999" and it is, of course, of enormous importance,

but we all recognize that it cannot even when deployed be entirely effective. It is only part of what we need to cope with the multiple threats that America is facing and that our friends and our allies face. That is why President Bush has called for a broad strategy that goes well beyond missile defense and includes both non-proliferation and counter-proliferation.

That is why I applaud you, Mr. Chairman and Mr. Lantos, for taking on the challenge of strengthening a vital element of this new strategic framework by working to reauthorize the Export Administration Act.

Two years ago, the Select Committee on National Security that I chaired recommended reauthorization of the Export Administration Act for a number of reasons, including specifically that its penalties had lapsed. Reestablishing the higher penalties for violation of the act that have been allowed to lapse since 1994 will be one of the great accomplishments of this Committee and our entire Congress.

I testified to this effect before Senator Gramm's Committee on Banking in 1999 and I am very pleased to say that the Senate legislation fulfills the recommendation of the Select Committee on National Security.

Just as important is recognizing the inadequacy of our current essentially unilateral approach to export controls and some of what Senators Thompson and Gramm have just said to you touches directly upon this. We are achieving the worst of all possible worlds to the extent that we in the U.S. control our producers, our workers, our sales to foreign markets and then permit ourselves to be undercut by our friends and our allies or sometimes by others. We are achieving nothing in the way of security if things are available in foreign markets or if they are available in mass markets. At the same time, we are penalizing ourselves commercially.

What we have to do, therefore, is not only focus on foreign availability and on the mass market availability of these products and technologies which is of vital importance and a great step forward. But we must also focus with much, much vigor and in much more robust ways—heretofore the Executive Branch or the Legislative Branch have had a multilateral approach—on a renewed multilateral approach to export controls.

And this was the question that Representative Lantos brought up in his opening statement and I would like to just take the balance of my remarks to address that.

The Select Committee that I chaired a few years ago expressly recommended on this topic, we noted both the demise of CoCom and the inadequacy of the Wassenaar Arrangement to purportedly replace it. We recommended that the United States take the appropriate action not only of reestablishing a multilateral regime but of also improving the sharing of information by nations that are major exporters of technology. This is so that the United States can track the movement of technology and enforce technology control and the export requirements.

The Defense Appropriations Act of 2000 appropriated a million dollars for a study. The study was to take a look at the adequacy or inadequacy of our current arrangements, such as Wassenaar, and "to convene senior level Executive Branch and congressional

officials as well as outside experts to develop the framework for a new effective CoCom-like agreement that would regulate certain military use for goods and technologies on a multilateral basis."

Mr. Berman, who is temporarily not with us in this hearing but a distinguished Member of this Committee, and I were the Democratic and Republican co-chairs respectively of the House of Representatives; Mike Enzi of Wyoming and Jeff Bingham of New Mexico were respectively the Republican and Democratic co-chairs of the United States Senate to this study group. Our report has been completed after 6 months' work and participation by Executive Branch officials, both the Clinton Administration and the incoming Bush Administration, as well as outside experts, precisely as the law required. I commend it to your attention. I am sure that the professional staff of this Committee has had the opportunity to go through it.

Our report was unanimous. It was bipartisan and it reached a number of important conclusions on the subject of the importance of multilateral export controls that I hope will be reflected in the Export Administration Act reauthorization that you are writing.

First, multilateral export controls are more important to the United States now than they were even during the Cold War. During the Cold War, America had some unique technological advantages vis-a-vis most of the rest of the world. That combined with the relatively incipient nature at the time of global technology trade, meant that even unilateral export controls were often sufficient to prevent, for example, the Soviet Union from modernizing their weapons technology with the benefit of United States technology.

But, of course, until 1994, America had much more than simply unilateral controls. Up until 1994, together with our friends and allies, we participated in the Coordinating Committee on Multilateral Export Controls, known by its abbreviation of CoCom.

CoCom provided a way to prevent damaging transfers of equipment and technology to the Soviet Union, to the People's Republic of China, and other potential adversaries. CoCom worked well to ensure that American troops would never be confronted on the battlefield by an enemy armed with American technology.

But today all that has changed. Since 1994, we have no longer been participating in CoCom. CoCom is no more. No longer do we or our allies agree not to undercut one another's counter-proliferation policies. America's technological leadership is also no longer unchallenged. The U.S. is not the sole source or anything like it of militarily useful technologies.

We cannot afford, therefore, to rely on unilateral export controls alone. We must work with our friends and allies to prevent the proliferation of dangerous technologies.

Building on the lessons from America's experience in CoCom as well as the Nuclear Suppliers Group, the Australia Group, the Missile Technology Controllers Regime and the Wassenaar Arrangement, we laid out in this report that I described to you a realistic process for reestablishing a new multilateral export control regime. Only a much beefed up multilateral control arrangement will deny dangerous technologies to rogue states and others who would threaten international peace.

The report notes that doing this will not be easy. It is going to require, as never before, American leadership. But the task is of such importance that we must begin today with whichever of our friends and allies who will join us, this must be a coalition of the willing, and thus we must set an example for others to follow.

I note that this topic is in fact covered in the Senate legislation at some length in title V. I would urge this Committee to look carefully at title V and to ensure that in a very beefy way the recommendations of this unanimous and bipartisan study group on multilateral export controls are explicitly stated.

For example, there is some language in title V, and I am not sure that it means in any way to conflict with the recommendations of the study group, but there is some language that suggests that the norm for a new multilateral arrangement is that all supplier groups must be members. Of course that is correct. In order for a multilateral regime to work, all supply groups must be members. But in order to begin, we have to begin somewhere and therefore what the study group recommends is that we begin with our like minded allies, whoever they may be, and lead by example.

There are two final areas where I urge the Committee to take special care. The provisions of the Export Administration Act reauthorization dealing with post-shipment verification and end use verification of high risk dual-use items are very important.

Post-shipment verification should be required as a condition of license for the export of militarily useful technologies, particularly the most sensitive of these, to high-risk countries or to high-risk destinations.

A country's willingness to participate in such a regime signifies that that country is a friend and an ally and not interested in diverting commercial technologies for illicit purposes.

At the same time, a country's willingness to facilitate the diversion of U.S. technologies to the development or manufacture of weapons of mass destruction is the unmistakable earmark of a country that should be subject to export controls. Unwillingness to provide contractual assurances against military use is facial evidence of non-commercial intent.

I admire and trust my neighbor to whom I sell my house, but he and I or she and I have an escrow. That is good business and common sense. That same kind of common sense is required when it comes to arms control.

Second and finally, the process for making determinations regarding the foreign availability and mass market status of a controlled item is very important. In the Senate bill, for example, if an item is to be decontrolled because of foreign availability, only the President of the U.S. can set that aside. Over the more than 50 years of U.S. export controls, the President has never been called upon to break an impasse over whether to grant an export license. This kind of a apparent process therefore there is actually completely illusory. What we must have are appropriate checks and balances.

That is the entirety of my testimony. You have been most gracious and I appreciate it.

[The prepared statement of Mr. Cox follows:]

PREPARED STATEMENT OF THE HONORABLE CHRISTOPHER COX, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Thank you very much, Mr. Chairman.

I thank the members of the committee also for being here, and most importantly for undertaking this topic.

With President Bush in Europe meeting with our NATO allies, the European Union and the president of Russia, it is entirely fitting that we are here to discuss the Export Administration Act. It is a crucial element in what the president has described as our new security framework.

We need, of course, a missile defense that will protect all 50 states and our allies and our friends, and our forward-deployed forces. And that's much of what the president is doing to be talking about in Europe. But just as importantly, we also need to ensure that we're doing everything we can to prevent the proliferation of weapons of mass destruction, including nuclear weapons, chemical weapons, biological weapons and the means to deliver them.

Tomorrow, the Policy Committee, of which I serve as chairman and which, Mr. Chairman, you used to serve as chairman, will issue a policy statement on missile defense. Two years ago, an overwhelming bipartisan majority of Congress formally declared in legislation that it is the national policy of the United States to deploy an effective national missile defense as soon as it is technologically feasible. This national policy is now enshrined in the National Missile Defense Act of 1999.

And it's, of course, of enormous importance that we all recognize that it cannot, even when deployed, be entirely effective; it's only part of what we need to cope with the multiple threats that America is facing, and that our friends and our allies face. That is why President Bush has called for a broad strategy that goes well beyond missile defense, and includes both nonproliferation and counterproliferation.

That's why I applaud you, Mr. Chairman, Mr. Lantos, for taking on the challenge of strengthening a vital element of this new strategic framework by working to reauthorize the Export Administration Act.

Two years ago, the Select Committee on National Security that I chaired recommended reauthorization of the Export Administration Act for a number of reasons, including specifically that its penalties had lapsed. Reestablishing the higher penalties for violation of the act that have been allowed to lapse since 1994 will be one of the great accomplishments of this committee and our entire Congress finishing its work. I testified to this effect before Senator Gramm's Banking Committee in 1999, and I'm very pleased to say that the Senate legislation fulfills this recommendation of the select committee.

Just as important is recognizing the inadequacy of our current essentially unilateral approach to export controls. Some of what Senators Thompson and Gramm have just said to you touches directly upon this. We are achieving the worst of all possible worlds to the extent that we in the United States control our producers, our workers, our sales to foreign markets, and then permit ourselves to be undercut by our friends and our allies or sometimes by others. We are achieving nothing in the way of security if things are available in foreign markets or if they're available in mass markets. At the same time, we are penalizing ourselves commercially.

What we have to do, therefore, is not only focus on foreign availability and on the mass market availability of these products and technologies, which is of vital importance, of course, and a great step forward, but also to focus with much, much vigor in much more robust ways than heretofore the executive branch or the legislative branch has been doing, on a multilateral approach—a renewed multilateral approach to export controls. And this was the question that Representative Lantos put in his opening statement, and I'd like to just take the balance of my remarks to address it.

The select committee that I chaired a few years ago expressly recommended on this topic. We noted both the demise of COCOM and the inadequacy of the Wassenaar Arrangement to purportedly replace it. We recommended that the United States take the appropriate action not only of reestablishing a multilateral regime, but also of improving the sharing of information by nations that are major exporters of technology so that the United States can track the movement of technology and enforce technology control and re-export requirements.

The Defense Appropriations Act of 2000 appropriated $1 million for a study. The study was to take a look at the adequacy or inadequacy of our current arrangements, such as Wassenaar, and, quote, "To convene senior-level executive branch and congressional officials, as well as outside experts, to develop the framework for a new effective COCOM-like agreement that would regulate certain militarily useful goods and technologies on a multilateral basis."

Mr. Berman, who is temporarily not with us in this hearing, but a distinguished member of this committee, and I were the Democratic and Republican co-chairs, respectively, in the House of Representatives; Mike Inslee of Wyoming and Jeff Bingaman of New Mexico were respectively the Republican and Democrat co-chairs of the United States Senate of this study group. Our report has been completed after six months work and participation by executive branch officials, both the Clinton administration and the incoming Bush administration, as well as outside experts, precisely as the law required. I commend it to your attention. I am sure that the professional staff of this committee has had the opportunity to go through it.

Our report was unanimous, it was bipartisan and it reached to a number of important conclusions on the subject of the importance of multilateral export controls that I hope will be reflected in the Export Administration Act reauthorization that you are writing.

First, multilateral export controls are more important to the United States now than they were even during the Cold War. During the Cold War, America had some unique technological advantages, vis-a-vis most of the rest of the world. That, combined with the relatively incipient nature at the time of global technology trade, meant that even unilateral export controls were often sufficient to prevent, for example, the Soviet Union from modernizing their weapons technology with the benefit of United States technology. But, of course, until 1994, America had much more than simply unilateral controls. Up until 1994, together with our friends and allies, we participated in the Coordinating Committee on Multilateral Export Controls, known by its abbreviation of COCOM. COCOM provided a way to prevent damaging transfers of equipment and technology to the Soviet Union, to the People's Republic of China and other potential adversaries. COCOM worked well to ensure that American troops would never be confronted on the battlefield by an enemy armed with American technology.

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Building on the lesson of America's experience in COCOM, as well as the nuclear suppliers group, the Australia group, the missile technology control regime and the Wassenaar Arrangement, we've laid out in this report that I described to you a realistic process for reestablishing a new multilateral export control regime. Only a much beefed-up multilateral control arrangement will deny dangerous technologies to rogue states and others who would threaten international peace.

The reports notes that doing this will not be easy. It's going to require, as never before, American leadership. But the task is of such importance that we must begin today with whichever of our friends and allies will join us. This must be a coalition of the willing, and thus we must set an example for others to follow.

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For example, there is some language in Title V—and I'm not sure it means in any way to conflict with the recommendations of the study group, but there is some language that suggests that the norm for a new multilateral arrangement is that all supplier groups must be members. Of course, that is correct. In order for a multilateral regime to work, all supplier groups must be members. But in order to begin, you've got to begin somewhere. And therefore, what the study group recommends is that we begin with our like-minded allies, whoever they may be, and lead by example.

There are two final areas where I urge the committee to take special care. The provisions of the Export Administration Act reauthorization dealing with post-shipment verification and end-use verification of high-risk, dual-use items are very important. Post-shipment verifications should be required as a condition of a license for the export of militarily useful technologies, particularly the most sensitive of these, to high-risk countries or to high-risk destinations.

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Second and finally, the process for making determinations regarding the foreign availability and mass market status of a controlled item is very important. In the Senate bill, for example, if an item is to be decontrolled because of foreign availability, only the president of the United States can set that aside. Over the more than 50 years of U.S. export controls, the president has never been called upon to break an impasse over whether to grant an export license. This kind of apparent process, therefore, is actually completely illusory. What we must have are appropriate checks and balances.

Chairman HYDE. Thank you very much, Mr. Cox.

Normally, with congressional witnesses, we spare them the ordeal of asking them questions and I know the Senators have to leave imminently, but Mr. Lantos has one question he wants to ask somebody, so Mr. Lantos?

Mr. THOMPSON. Perhaps you are sparing yourself the ordeal.

Mr. LANTOS. Thank you very much, Mr. Chairman. I shall try to wrap several question into one question because I do have some serious concerns.

Let me first commend all three of our distinguished witnesses for exceptionally thoughtful and impressive testimony.

My first question really goes to Senator Thompson, if I may.

You made the observation, Senator Thompson, that you and the named colleagues are in the distinct minority in the Senate. Let me remind you, and you need no reminder, that not too many years ago there were only two Senators, Senators Gruening and Morse, who voted against the Gulf of Tonkin Resolution and 98 others went the other way, so I would not be discouraged by the fact that as of the moment you do not have 51 votes, perhaps you can get them.

You wrote a letter along with Senators Warner, Helms, Shelby and Kyl in early March telling the drafters of S. 1712 that you had 18 reservations about that piece of legislation. Later on, you sent a second letter saying that four of those have now been resolved.

As of today, with the new version, have all 18 of your reservations been resolved?

Mr. THOMPSON. No, Mr. Lantos. I do not have an up-to-date number and some of them might fall in the partial category.

We have had a lot of good discussion back and forth among the Senators, among the staff, some with the White House. They have talked in terms of an Executive order of some kind, perhaps, that might help, although I am not sure what should be in an Executive order and not in the legislation itself. But there are still some things, clearly, that when this bill is considered, we will attempt to improve it; not to make it worse, but to make it better. For example, they appear to have changed the definition of foreign availability, I think, to make it easier to categorize something as foreign availability. We will have to fix that.

And the President, incidentally, can only intervene if there is a threat to national security. In other cases, he can only intervene to override the mass marketing determination if there is a *serious* threat to national security. We need a little more discussion as to why the difference between these standards.

I think that the number of days that agencies have to consider licensing, and whether or not a majority vote in order to resolve a dispute in the interagency review is wise, are other things that need to be looked at. It has been that way, I agree, in times past, but circumstances have changed.

The changes that are of most importance to this nation are the proliferation of weapons of mass destruction and ballistic missiles, and the wrong things getting in the wrong hands. It seems to me that an overriding factor in looking to move beyond the status quo now. We made the adjustment from CoCom to Wassenaar because we did not have the Soviet Union threat any more, but we have not made the adjustment from Wassenaar to the current situation, which consists of new threats from new sources based on sensitive dual-use technologies. So I would prefer that the defense side of things have more of a say in the entire export control process.

And, finally, I think that what is needed here more than anything else is a blue ribbon commission along the lines of the Rumsfeld Commission. I see no harm in taking one more year, with the new Administration getting its people in place, with this issue being highlighted the way it has been now because of all the work that has gone on, and to have a blue ribbon commission that—Rumsfeld, as I recall, was established under congressional direction by the intelligence community in consultation with the Hill.

I think it is a very good way to go. People whose names were not on the average person's lips, but who were highly respected, from all political persuasions, and not oriented too much toward business, as many of these groups are, quite frankly, and not oriented either against those who just do not want to do any business with the Chinese. I do not fall into that last category by the way. But an objective national security consideration that the law really has required, and has been ignored in the past.

For example, there was a pro-business study made by a group that was widely reported out at Stanford University. But when the GAO took a look at it, they tore it all apart. These things are disputed as to what is controllable and what is not; there are factual determinations that politicians should *not* be the sole judges of. So I think that an objective consideration of this process for a year would be the best avenue of all.

Mr. GRAMM. Mr. Chairman, we have a vote that just started in the Senate. At some point, I would like to respond to a couple of things.

Tom, if you have a question for me, if you could ask it, I will answer it and respond to this and then we can go vote.

Mr. LANTOS. Why don't you come back on this because I do have one more question.

Mr. GRAMM. Well, first of all, under the current system, it takes a majority vote to bump the process up. We changed that system, so one representative can say no and force it up to the next level to be reviewed. That is strengthening the process, not weakening it.

Secondly, Rumsfeld has endorsed this bill. In fact, the conclusion of the Rumsfeld Commission, if you had to reduce it down to one sentence, was build a higher wall around a smaller number of things. That is exactly what their conclusion was.

So I am not against blue ribbon panels. I am not in the blue ribbon panel naming business. I am in the lawmaking business. This bill has expired. It needs to be strengthened, it needs to be reauthorized. I would be very supportive of having a blue ribbon commission, but we have no effective penalties, we have no effective process in place. I think we have put together a very strong process. I think it is a dramatic improvement over the current law. I think it is well thought out, we spent 2 years doing it.

I believe we got 90 or 95 votes in the Senate. I have spent hours with Fred. Fred Thompson and I are good friends, I hope some day we are making movies together instead of doing this, but the bottom line is we do not agree.

Mr. LANTOS. What role would you plan to play?

Mr. GRAMM. Well, there was one that was going to be a movie about Texas Rangers that I thought I might get a part in. Texas Rangers had invaded Mexico and attacked the Mexican army and the governor was notified and he had snuff he was chewing—and I cannot say what he said, but in saying it he spit snuff out and that was going to be my line, but they canceled it on a budget basis, so I might be famous like Fred.

Mr. LANTOS. Let me reclaim my time——

Mr. THOMPSON. I think that would be a good part for you. I agree.

Mr. LANTOS. I would like any or all of you to answer this. The Cox Commission report expressed some very severe doubts about the feasibility of post-shipment verification. I share those reservations. Having spent some of my life in totalitarian societies, I have difficulty seeing how a product once it arrives in a dictatorial and totalitarian regime how post-shipment verification can be very effective.

I really would like you to respond to this issue because I think it is an important issue. I think we act in an honest and straightforward fashion and when we say post-shipment verification, we have something very concrete in mind while the Chinese communists have something very different in mind.

A second issue I would like all three of you if possible to address, I find the notion that the Commerce Department, the purpose of which is to encourage exports, is the control agency dealing with national security and foreign policy concerns very close to being an oxymoron and I would like to have the rationale as to why the Commerce Department which is a trade promotion arm of the U.S. Government would be designated as the national security watchdog.

Mr. GRAMM. Well, let me, if I can, just go first and then I am going dart out to vote and then let Fred, I know he will want to.

We thought post-shipment verification was important. We wrote a very strong provision in the bill on it. We provided additional funding for it and we gave greatly enhanced strength to the President and to the secretary to take action against countries that do not participate in it.

We believe it is important to attempt to see that what people say they are doing they actually do, especially in cases where we are dealing with countries that have a checkered record. So we thought it was important.

Mr. LANTOS. But Chris Cox says in his report that it has been ineffective. Why would it now be effective?

Mr. GRAMM. Well, we want to try to make it effective by focusing it on countries where there is a real potential problem, by providing more resources to commit to it, by stiffening penalties for violators, and by giving the President and the secretary the ability to deny the export license if countries do not agree.

The fact that we are considering it shows that we have a deep concern, so we thought it was worth trying to make it work.

In terms of the Commerce Department, the system has always embodied the Commerce Department as being the host agency. In trying to reauthorize the bill, we thought the quickest way to guarantee that we would fail for 6 years in a row was to start trying to turn the whole process on its head, so what we tried to do was to strengthen the Defense Department by giving their one member the ability to force the process to be kicked up to the next level and then ultimately if necessary all the way to the President. So it has historically been done that way. We believe we improved it in our bill.

Mr. THOMPSON. Mr. Lantos, I would say that first of all procedure on paper is one thing and it being carried out is something else. There never has been in any of the interagency review processes up until now a matter that has ever been taken to the President. It never gets that far. They have lots of these things to deal with, there is institutional pressure, I think, against it. But for whatever reason, the question many times is what gets to the President's attention. And, again, for some reason, we are not allowing him to delegate any of this authority.

I think that the act in 1979, the world was different, I think there was greater agreement on the threats and risks; commerce was a second priority. Phil and I had a little friendly back and forth going as to the Banking Committee has jurisdiction of this matter in the United States Senate. The world has changed and we all have relevant considerations.

As far as post-shipment verification is concerned, studies have been done showing that there have been very few even attempted, let alone carried out. Resources, I think, are part of the reason, but I would finally point out that in these new exemption categories, such as mass marketing or foreign availability, for that matter, or incorporated parts, which is an old, bad idea that is being carried forward into this bill, if those determinations are made, there is no licensing requirement, so therefore there is no post-shipment verification at all for those categories.

Thank you very much. With your permission, I will go vote.

Chairman HYDE. Thank you, Senator.

Chris, I do not know, should we keep you and you answer some questions?

Mr. COX. I do not think so. No, I would actually be happy to——

Chairman HYDE. Mr. Gilman has been left out and he has a question or two, if you do not mind.

Mr. COX. In fact, if I might be permitted, I would like to just add a small amount on the questions that Mr. Lantos put. I think they are excellent questions and I think the answers that you got were excellent as well.

Obviously, the Select Committee on National Security that I chaired dealt only with the People's Republic of China and you are dealing with the planet. Nonetheless, I can answer within that smaller universe the question about why post-shipment verification has been ineffective.

Three reasons. First, in the PRC context, there was a requirement of advance notice. That vitiates it entirely by itself. Secondly, the post-shipment verification was in each case in the discretion of the host country. That, too, was vitiating. And, third, even if the requirements had been meaningful, which they were not, violation of those requirements carried no consequence. So if you were going to have any kind of meaningful post-shipment verification, you have to surmount those difficulties.

With respect the Commerce Department being the appropriate agency, this is not a Republican or a Democratic issue, this is an intra-Administration fight that, as you all know as Members of this Committee, has been going on forever through Republican and Democratic administrations. And all that you can do in crafting ideal legislation is make sure there are checks and balances.

Honestly, if you put the Defense Department in charge instead of the Commerce Department, I think you will have a different set of problems, and we ought not suffer those either. But what we should have is some balance and that is what you have to be seeking in this legislation.

Chairman HYDE. Mr. Gilman?

Mr. GILMAN. Thank you, Mr. Chairman.

Mr. Chairman, I want to commend you for giving this very serious attention, taking it into the jurisdiction of the Full Committee. I just regret that more one of our Members are not here. This is a matter on which we have expended a lot of energy in the past and we hope we can continue to focus even more attention on it and I thank Mr. Cox for his efforts on the study the commission has done on this issue.

Although we must do a better job of promoting our exports and permitting appropriate exports, we need certainly to keep a strong eye on national security and to keep that uppermost in our consideration as we review all of these aspects.

And, Mr. Cox, let me just address a couple of quick questions to you. If the Senate were to fail in passing this 141 on a timely basis before the expiration date, should we extend current stop gap authorization and, if so, how long would you extend it?

Mr. COX. Well, of course you must extend stop-gap authorization. The President would use his emergency powers to do so if Congress did not, but it must be extended. We cannot have a complete lapse and we have not ever suffered such a lapse since the expiration of the act 7 years ago.

At a minimum, what Congress ought to do is bump up the penalties from those that obtain under IEPA and the President's emergency authority to what was in the law originally. At a minimum, we must do that.

Mr. GILMAN. There has been a lot of criticism in the past about the licensing authority under all of this and how long it takes to get appropriate licensing. Do the reauthorization proposals take care of that problem?

Mr. COX. They should. Without question, some of the timeframes are unrealistic. Six months to approve a computer export, for example, simply does not work in today's world. It cannot possibly make sense to us to think that 6 months is the appropriate period of time and so the Senate legislation properly tackles those time periods. Whether or not they are exactly where you want them is something else, but I, by the way, endorse Senator Gramm's approach which I take it has been endorsed in those very words by Secretary Rumsfeld as well, of building higher walls around fewer things. But be careful that that is what you are actually doing rather than just rearranging the furniture.

Mr. GILMAN. Senator Thompson questioned what is the urgency about reauthorizing this in a hurried manner with new administration before they truly have an opportunity to examine all of this. Do you agree that there is some merit about delaying it and allowing a further study by the Administration?

Mr. COX. Well, as always, when you hear from two distinguished leaders from the other body such as Senator Gramm and Senator Thompson, you will find a great deal of wisdom and truth. And Senator Gramm was right to say that we have an expired law and it is our job to reauthorize it; Senator Thompson was right to say in rejoinder that it is better to have no law at all than a bad one. And so they are both right to the extent that it is within our power to do our job in a timely fashion this year, this session. Also to make sure that all the concerns that Senator Thompson has and the minority of Senators that he described are addressed.

Chairman HYDE. Mr. Gilman, I am going to ask your permission to let Mr. Cox go. We have another panel, a substantial panel.

Mr. GILMAN. One last question, Mr. Chairman. I certainly want to abide by your request.

Senator Thompson indicated there was a minority of Senator Warner, Helms, Kyl, Senator Thompson, a minority in the Senate favoring strict review. How do you feel about the need for strict review and the concern about not decontrolling too much at one time?

Mr. COX. Well, a minority that includes such people as Senator John Warner, Senator John Kyl and so on is a pretty distinguished minority. Second, there are Members of the Congress and Members of the Senate who are relatively more or less experts on these issues and so that minority status is belied to a certain extent when you take a look at the universe of people who actually know what they are talking about, whose expertise this is. That does not mean you have to agree with them, but I would want to make sure that this Committee in doing its job by looking very carefully at the concerns that they have expressed and satisfy yourselves that you have dealt with them.

Mr. GILMAN. Thank you.

Thank you, Mr. Chairman.

Chairman HYDE. Thank you, Mr. Gilman.

Thank you, Mr. Cox.

Mr. COX. Thank you, Mr. Chairman.

Chairman HYDE. We are ready to hear from our second panel of distinguished witnesses, starting with Dr. Richard Cupitt, who is the Associate Director and Washington Liaison for the Center for International Trade and Security. He also serves as a Visiting

Scholar at the Center for Strategic and International Studies. Over the years, Dr. Cupitt has conducted field work on export controls in more than a dozen countries, and has served a consultant to Lawrence Livermore and Argonne National Laboratories.

Dr. Cupitt is the author or co-editor of numerous books and articles on export controls. He received his Ph.D. from the University of Georgia, and has taught at Emory University and the University of North Texas.

Next we have Dr. Paul Freedenberg, who currently is the Government Relations Director for AMT, the Association for Manufacturing Technology. Many of you may remember his tenure as the first Under Secretary for Export Administration at the Commerce Department during the Reagan Administration. Before that, he served as Assistant Secretary of Commerce for Trade Administration.

Prior to his Commerce Department service, Dr. Freedenberg worked for many years as a staff member on Capitol Hill, including 7 years as Staff Director of the Senate Banking Committee's Subcommittee on International Finance.

Dr. Freedenberg received his Ph.D. at the University of Chicago, and was an Assistant Professor of Political Science at Tulane. He is the author and co-author of several articles on export policy.

Rounding our second panel is Mr. Dan Hoydysh, who is the Director of Trade Policy and Government Affairs for UNISYS Corporation. He also serves as Co-Chair of the Computer Coalition for Responsible Exports.

Before UNISYS, Mr. Hoydysh worked at the Bureau of Export Administration at the Commerce Department. He received a Master's degree of science in atmospheric physics from New York University and a J.D. degree from the Columbus School of Law at Catholic University.

We look forward to hearing from our distinguished panel.

Dr. Cupitt, we will start with you first. If you could hold your statement down to about 5 minutes or so, we will not be too strict, but your full statement will be made a part of the record.

Dr. Cupitt.

STATEMENT OF RICHARD T. CUPITT, ASSOCIATE DIRECTOR, CENTER FOR INTERNATIONAL TRADE AND SECURITY, UNIVERSITY OF GEORGIA

Mr. CUPITT. Thank you, Mr. Chairman. I would like to also express my thanks to the Members of the Committee for the opportunity to speak with you this afternoon.

Several of the recent reports that have been referred to by the first panel, Senator Thompson, Senator Gramm and Representative Cox, on at least one issue all of those agree and that is the United States needs a new Export Administration Act. I think a sense of urgency accompanies the recommendations in each of these reports, not because of some artificial or arbitrary August deadline related to the expiration of the act, but because of two other factors.

First, it is my experience in judging export control systems around the world that if it is not improving, if a nation's export control system is not altering to meet new conditions, it is getting worse. The ill intentioned outside the United States literally have

programs designed to find new ways to exploit and expose weaknesses in existing systems. So I think that is one reason for a sense of urgency.

Secondly, I think without a clear mandate from Congress in the shape of Export Administration Act the United States has begun to cede leadership on the issue to the European Union.

Now, fortunately many member countries of the union share our values and concerns about proliferation, but on several issues they take a different direction and on several very important issues we indeed have serious disagreements with them. So I think there is some sense of urgency, but it is not the deadline related to the S. 149, it is pressure of these sort of more substantive concerns.

From suggestions of the staff, I was asked to sort of lay out some big picture challenges. I would like to mention at least three.

The first, I think one thing we should consider is how to improve a data-poor policy environment for export controls. Significant gaps exist between the data that is available and the data that is needed to make astute export control policies.

I can give you several examples. One, very little information on or analysis of foreign export control systems exists. I think this makes it very difficult to assess important policy issues such as how harmonized the international system is. And this difficulty, this lack of knowledge, has seen some expression in the course of the bilateral negotiations with Australia and Great Britain on monition controls. I think in many cases we have been surprised by what we have found compared to what we expected to see when those negotiations started.

I think there is very little concrete information on compliance activities by U.S. industry. We did a study last year and that was the first time a comprehensive survey of industry compliance activities had been done in almost 15 years.

So there are several additional kinds of information that I think would really enhance the policy environment and I think that might be something worth considering.

Secondly, and something I think you have heard plenty on already, when we renew the EAA we need to think about how to augment international cooperation. The four multilateral arrangements are, quite frankly, very primitive, rudimentary types of multilateral international organizations. I have provided some tabular data on how you might think about things in terms of structures, but these types of structures offer very limited benefit beyond virtually no policy coordination at all.

The weak mechanisms for coordinating export controls multilaterally would pose a minor problem if the countries involved had pretty well harmonized national systems. Unfortunately, the limited evidence that exists suggests that harmonization is an exception rather than a rule even among the core supplier states.

Finally, one of the keys to all this debate is if Congress can lay down a general principle regarding transfers of information technology to the People's Republic of China. The most common interagency licensing dispute usually involves such exports, if you broadly define information technology.

The fact that the United States coordinates control over the vast majority of information technology items through the Wassenaar

Arrangement, which has no real undercut policy, virtually guarantees that exports of such items to China will generate controversy. And for the Committee's information, I have provided a table that identifies information technology, and which arrangements control that.

Indeed, you could even narrow the problem to exports to end users in China with connections to military or weapons of mass destruction projects that are also involved in civilian projects—those are quite, quite numerous. While these cases will always require judgment on the part of licensing officials, Congress, I think, can establish a clearer principle for the Administration upon which to base these decisions.

In conclusion, while this is not an exhaustive list of concerns, I think addressing these three issues would go a long way to resolving much of the problems that we face. All of the recent studies make recommendations on these three issues that the Committee might wish to consider. I certainly think that if you can resolve these, the Congress can send a message to industry, to U.S. allies and to current or potential adversaries about its commitment to non-proliferation and to legitimate commerce. Based on that commitment, I think the United States can reestablish its leadership on export controls.

Thank you for your time.

[The prepared statement of Mr. Cupitt follows:]

PREPARED STATEMENT OF RICHARD T. CUPITT, ASSOCIATE DIRECTOR, CENTER FOR INTERNATIONAL TRADE AND SECURITY, UNIVERSITY OF GEORGIA

INTRODUCTION

At least as early as the classical era of ancient Rome, governments have grappled with the issue of export controls. Intersecting the various military, economic, and diplomatic interests of a nation, export controls reflect how a government balances these objectives. Ideally, export controls will complement these interests as part of an overarching grand strategy. More often, export controls express the compromises required to conduct foreign policy in light of competing objectives.

For nearly fifty years, the United States has set the world standard for security export controls, both for military and dual-use (i.e., goods, technologies and services with commercial and military applications) items. Several recent reports, including that of the Study Group on Enhancing Multilateral Export Controls for US National Security and two by the Center for Strategic and International Studies, however, argue that the current US and multilateral exports have begun to break in the face of new challenges, from new proliferation threats to economic globalization.[1] While debate continues as to how to fix the US and multilateral system, every serious study agrees on at least one measure: the United States must craft a new Export Administration Act (EAA) soon.

Although the United States has a world class export control system, the lack of a Congressional legislative mandate has undermined US leadership on the issue. Beyond the hypocritical aspect of US policy this engenders (where US officials tell other countries about the need for a clear legislative framework), this deficiency helped cede practical leadership on export controls to the European Union (EU). As important, if national or multilateral export controls do not constantly adapt to new conditions, they do not merely stagnate but get worse. While friends and allies in industry and government wait on the United States to act, US adversaries spend that time finding new ways to exploit weaknesses in the current regime.[2] Con-

[1] Study Group on Enhancing Multilateral Export Controls for US National Security, Final Report, Washington, DC: Henry L. Stimson Center, Arpil 2001; Center for Strategic and International Studies, *Technology and Security in the 21st Century: U.S. Military Export Control Reform,* Washington, DC: CSIS, May 2001; and Center for Strategic and International Studies, National Security and Information Technology, Washington, DC: CSIS, June 2001.

[2] See, for example, the discussion of the Iraqi program on deceptive acquisition practices in David Albright, "A Commentary on the Future of Nuclear Export Controls," pp. 95–100 in in

sequently, although the August 2001 deadline may seem artificial to some, the sense of urgency reflects an increasingly uncomfortable reality.

While the EAA requires urgent reform, unfortunately the Congress faces at least three major "big picture" challenges in the reauthorization process:

- Improving a data-poor policy environment;
- Augmenting international policy coordination beyond its primitive state; and
- Resolving divergent policy objectives regarding exports of information technology to China.

Although many other important issues exist regarding the EAA, how Congress resolves these three challenges will define the parameters for many other policy concerns. If left unsettled, the United States will flounder along with an increasingly ineffective and inefficient system, ever more an isolated eccentric than a source of global leadership.

IMPROVING A DATA-POOR ENVIRONMENT

Significant gaps exist between the data available and the data needed to make astute and timely policy choices, both in the United States and abroad. In some instances, such as evaluating the bona fides of a recent graduate of a foreign technical university for issuing a deemed export license, pertinent data may prove impossible to collect. In other cases, however, officials could obtain relevant data with an appropriate investment of resources and the proper analytic tools.

Despite nearly fifty years of cooperation, for example, very little systematic evidence about national export control systems exists. Despite notable exceptions, such as the Worldwide Guide to Export Controls by Vastera Limited and the export control projects at the Stockholm International Peace Research Institute (SIPRI) and the Center for International Trade and Security (CITS/UGA), US and foreign officials have few ready sources of data on the design, processes, and implementation of export control systems beyond that of their own country. The difficult course of the bilateral negotiations on munitions export controls with Australia and Great Britain over the last twelve months demonstrate the extent of this knowledge gap and its consequences. Knowledge of corporate export control policies fares no better. Until the CITS/UGA industry survey of 2000, for example, the last comprehensive survey of US corporate compliance practices took place in 1985 as part of a study for the National Academy of Sciences.[3]

The current legislation in the Senate address some concerns regarding assessing national export control systems and foreign availability through its Office of Technology Evaluation, but the shortage of information extends more deeply into the US system. Licensing officials often can not use proprietary or other open source databases to supplement information generated by the US intelligence community. Where companies may take mere seconds to scan multiple lists of sensitive end-users for each transaction and financial institutions have ready access to the books and business plans of potential customers, this kind of information may take days to enter the US dual-use licensing system for a specific case, if it ever does. The rapid advances in many technologies, such as information or bio technologies, also mean that licensing officers at the Department of Commerce and elsewhere may not have sufficient contact with industry to evaluate the latest technologies or, more importantly, know of and understand the export control implications of emerging dual-use technologies.

Sometimes US officials simply lack the necessary analytic tools. Using its current licensing database system, for example, the Department of Commerce has difficulty extracting information that would allow it to target its resources more effectively. It can not, for example, easily ascertain much more than the average license processing times, so officials rely extensively on anecdotal evidence to identify and fix specific license processing bottle-necks. Although the US Exports project under the Department of Defense may remedy several of the most immediate problems, if the US wants a world-class export control system, US officials need world-class management tools.

Nuclear Suppliers Group, *2nd NSG International Seminar on the Role of Export Controls in Nuclear Non-Proliferation,* 8–9 April 1999, UN Headquarters New York, Vienna: NSG Point of Contact, 2000, p. 96.

[3] See Stephen A. Merrill, "Operation and Effects of U.S. Export Licensing for National Security Purposes," pp. 221–253 in National Academies of Science, Panel on the Impact of National Security Controls on International Technology Transfer, *Balancing the National Interest: U.S. National Security Export Controls and Global Economic Competition,* Washington, DC: National Academy Press, 1987.

AUGMENTING INTERNATIONAL POLICY COORDINATION

The principal supplier states have made strong commitments to multilateral export control arrangements in several arenas, such as the Group of Eight (G-8) summit meetings. In the final communiquè from the 1999 Köln summit, for example, the governments stated:

> Effective export control mechanisms are essential for achieving a broad range of our arms control and non-proliferation objectives. We will continue to look for ways to strengthen these mechanisms.[4]

With the exception of the Russian Federation, moreover, every G-8 member participates in all four multilateral arrangements (i.e., the Australia Group, the Missile Technology Control Regime, the Nuclear Suppliers Group, and the Wassenaar Arrangement). Nonetheless, these statements clearly indicate that the multilateral arrangements need embellishment to becomar/F1 5rs GcomExpontmechal ex-
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[4] Ministry of Foreign Affairs, Japan, "G-8 Communiqué Köln 1999," http://www.mofa.go.jp/policy/economy/summit/1999/communique.html.

[5] Kenneth W. Abbott and Duncan Snidal, "Why States Act through Formal International Organizations," *Journal of Conflict Resolution,* 42, 1 (February 1998), pp. 3–32.

[6] Andrew Latham and Brian Bow, "Multilateral Export Control Regimes: Bridging the North-South Divide," Canadian Institute of International Affairs International Journal, 53, 3 (Summer 1998), pp. 465–486.

[7] See, for example, General Secretariat of the Council of the EU, "Current National Arms Export Policies of the 15 EU Member States," COARM Document, May 6, 1998 available at *http://projects.sipri.se/expcon/euframe/coarm.htm;* General Secretariat of the Council of the EU, "Current National Arms Export Policies of the 15 EU Member States," POLARM Document, February 19, 1996 at *http://projects.sipri.se/expcon/euframe/coarm.htm;* Center for Information on Strategic Technologies, "Questionnaire on Export Control Systems in Asian Countries and Regions," mimeo, Tokyo, Japan, March 1, 2000; Center for International Trade and Security, University of Georgia, *Nonproliferation Export Controls: A Global Evaluation, Executive Report,* Center for International Trade and Security: Athens, Georgia, 2000. For this and other reports, see www.uga.edu/cits.

United States and Japan take a much more cautious approach on such licenses than Russia, Israel, and several European suppliers do. Even Germany, with an export control system regarded as stricter than other European states, will export many items to China that the United States would not. In part these differences emerge from the general European preference for managing potential proliferators through engagement rather than sanctioning them.

The fact that the United States coordinates control over the vast majority of information technology items through the Wassenaar arrangement, which has no real "no undercut" policy, virtually guarantees that exports of such items to China will generate controversy (see Table 3). Rather than trying to not name China directly in its EAA deliberations, a tactic tried by the House in the mid-1990s, the Committee might well confront the issue directly. Given that the United States, Japan, and the European Union have "catch-all" controls designed to prevent exports to projects of proliferation concern, the problem narrows to exports to end-users in China with connections to military or weapons of mass destruction projects that are also involved in civilian projects. While these cases will always require judgment on the part of licensing officials, Congress can establish a clearer principle upon which to base these decisions. With better data to evaluate such projects, moreover, US officials could do a much better job addressing industry concerns and in persuading foreign governments to coordinate their approach to these projects, either in terms of denials or approvals of exports.

CONCLUSION

While not an exhaustive list of issues, making prudent choices regarding these three issues should help create a more effective and efficient export control system. All of the recent studies make recommendations on these three issues that the Committee might wish to consider. In addition, more information, a more level international playing-field, and clearer guidelines regarding the most problematic cases can also become the groundwork for a new partnership between government and industry on export controls. Resolving these issues would all generate incentives to increase corporate compliance with existing export controls. Even among the companies most experienced with export controls, relatively few have adopted comprehensive compliance programs for export controls. Furthermore, as more and more small and medium size companies enter the export market, these companies often lack awareness of the basic objectives and procedures of US export control policy. By crafting a new EAA, Congress can send a message to industry, to US allies, and to current or potential adversaries about its commitment to nonproliferation and to legitimate commerce. Based on that commitment, the United States can reestablish its leadership on export controls.

Table 1—Multilateral Nonproliferation Export Controls Arrangements 2000

Basic Structures

Group	Members	Budget Source	Secretariat	Plenaries	Technical Meetings	Working Groups
AG	30	Australia	POC	Yearly	As needed	Yearly
MTCR	32	France	POC	Yearly [1]	Yearly	As needed
NSG	35	Japan	POC	Semi-annual	As needed	As needed [2]
WA	33	Mixed	Secretariat [3]	Yearly [4]	As needed	As needed

[1] Also holds a yearly reinforced POC meeting

[2] Six in 1998

[3] Twelve full-time staff, with Ambassador Luigi Lauriola (Italy) as Head

[4] Aggregate data exchanges twice yearly

Source: Richard T. Cupitt, *Multilateral Nonproliferation Export Control Arrangements in 2000: Achievements, Challenges, and Reforms*, Working Group Paper no. 1, Study Group on Enhancing Multilateral Export Controls for US National Security, Washington DC: The Henry L. Stimson Center/CSIS, May 2000.

Table 2—Multilateral Nonproliferation Export Controls Arrangements 2000

Selected Procedures

Group	List Review	Share Denials	Prior Notification, No Undercut Obligation	Share Approvals	Outreach Activities	Other Exchanges of Information
AG	Ad hoc, infrequent	Yes	Yes	No [1]	Regional seminars	Informal
MTCR	Ad hoc, rare	Yes	Yes	No	Special seminars [2]	Informal
NSG	Ad hoc, rare	Yes [3]	Yes [4]	No [5]	Regional & special [6] seminars	DU, JIE [7]
WA	Formal, regular	Yes	No, but post-facto notification [8]	Yes, in aggregate [9]	Planned	Informal

[1] Members share licensing data as State Parties in the CWC.
[2] Special transshipment seminars and workshops.
[3] Real-time notification through an electronic system in operation.
[4] For dual-use items, with an obligation not to undercut for three years.
[5] Since 1998, most members voluntarily share data on shipments of nuclear items through the IAEA.
[6] Special transparency seminars for all UN members.
[7] The Dual-Use Consultations and the Joint Information Exchange.
[8] Applies to denials issued in three previous years.
[9] Applies to Tier 2 dual-use items and munitions.

Source: Richard T. Cupitt, *Multilateral Nonproliferation Export Control Arrangements in 2000: Achievements, Challenges, and Reforms*, Working Group Paper no. 1, Study Group on Enhancing Multilateral Export Controls for US National Security, Washington DC: The Henry L. Stimson Center/CSIS, May 2000.

Table 3—Multilateral Lists of Proliferation-Sensitive IT Items [1]

Arrangement	List	All Categories (Items)	IT Categories (Items)
Australia Group	Chemical Weapons Precursors	1 (54)	0 (0)
	Control List of Dual-Use Chemical Manufacturing Facilities and Equipment And Related Technology	10 (10) 4 (9 controlled; 6 warning)	0 (0) 0 (0)
	List of Plant Pathogens for Export Controls Core & Awareness List	5 (50 controlled; 21 warning) 3 (17)	0 (0) 0 (0)
	List of Biological Agents for Export Control Core List & Warning List	7 (7)	0 (0)
	List of Animal Pathogens for Export Control		
	List of Dual-Use Biological Equipment for Export Control		
MTCR	Equipment and Technology Annex	20 (76)	11 (43)
NSG	Guidelines for Nuclear Transfers & Annex A (Trigger List)	7 (89) 8 (67)	0 (0) 4 (28)
	Guidelines for Transfers of Nuclear-Related Dual-Use Equipment, Material and Related Technology & Annex		
Wassenaar	Appendix 5 List of Dual-Use Goods and Technologies	9 (541)	9 (396)
	Munitions List	22 (196)	12 (33)
	Appendix 3 Specific Information Exchange On Arms	7 (7)	0 (0)

[1] All of the counts are preliminary. IT items include goods, services, and technology that involve the creation, modification, or transmission of data and knowledge. The counts for the items controlled for the NSG Dual-Use List differs from the oft used 70 items, probably a result of differing methods of counting sub-groups of items, including technology.

Chairman HYDE. Thank you, Dr. Cupitt.
Dr. Freedenberg?

STATEMENT OF PAUL FREEDENBERG, DIRECTOR OF GOVERNMENT RELATIONS, REPRESENTING ASSOCIATION OF MANUFACTURING TECHNOLOGY

Mr. FREEDENBERG. Thank you, Mr. Chairman.

Before I begin, I thought I would answer a question that was asked the previous panel which is why the Commerce Department is running this export control operation. Since I was present at the drafting of the legislation that created the Under Secretary for Export Administration and was the first one in that role, I think I can answer that question.

The idea was to have a compromise. The original idea was to have an independent agency, but due to interagency disagreement, there was no ability to decide in what new agency it would be housed. So the idea then was to break off export control from trade promotion. BXA is not a trade promotion agency, there is no place—until you get to the Secretary of Commerce, which it hardly ever gets to—there is no place at which the trade promotion side of Commerce ever touches export control. So that was the idea, that plus the idea of bringing intelligence in to have a greater degree of intelligence information from the CIA, have a greater bad end user screening ability. That is really what your problem is, who are the bad end users, not really what is the category of product that you are controlling. Because you have already decided that in coordination with the Defense Department. I just thought I would clarify that.

In my testimony which I will very briefly summarize, I tried to debunk the myth that somehow the U.S. export control system has collapsed. Particularly with regard to machine tools, we have found that over the last 6 years we had about 50 percent denials and our cases tend to run up to as much as a year before a decision is reached. That is frequently deadly to sales; because our allies, all of our allies, are able to finish their license processing certainly within a month, hardly ever in more than a month and sometimes within 10 days. And that is a very big selling point vis-a-vis U.S. products.

U.S. products certainly are not unique. In the age of globalization, our survey has shown that there are 718 different models of the particular machine tools that are controlled by the United States, that is five-axis machine tools, and 584 made outside the United States, including all of Europe, South Korea, Taiwan, and even China exhibited six models of these controlled products.

So the U.S. does not have a monopoly and what happens is that—and what has been happening over the last decade—is that Boeing has been moving offshore as the China aeronautics market has grown and China is likely to be the largest buyer of aircraft from Boeing over the next decade. They have used their market leverage to get Boeing to put more and more of their manufacturing into China. That means that the Chinese have to buy machine tools to make aircraft parts, and because of U.S. export control rules, those machine tools are not American. In general, they have been buying Italian, German, French and the evidence is very clear that that is the case. Very infrequently are the machine tools American.

In case you do not think that trend is going to continue, just last week it was announced by Airbus that they are going to build an entire wing in China. A wing is considered, obviously, an integral part of the plane. It is not a peripheral, and that means there is going to be even more manufacturing moving into China.

The question is who is going to provide the technology? The technology is being provided, obviously, the blueprints, by Airbus and by Boeing. If we have American machine tools there, we have a knowledge of what is going on with those machine tools. If we do not have American machine tools there, we do not know. We have to depend on our allies for cooperation, and they frequently do not have the same degree of factory scrutiny that we do.

Let me quickly turn to the recommendations I have for export control legislation. The first is, and it is relevant to what I was just talking about, that foreign availability be defined as taking into account foreign availability from within multilateral organizations such as Wassenaar. Most of the foreign availability now comes from—in fact, the entirety of foreign availability comes from our allies; and for U.S. companies not to be able to cite that allied foreign availability as evidence that the product is going to the intended end user is a tremendous disadvantage, and it essentially nullifies the provision.

Secondly, I was also on the commission that Congressman Cox discussed, the Stimson study group, and it is very, very important for us to give a mandate in any new legislation for a stronger multilateral organization. The previous Administration saw essentially CoCom crumble, and the organization that replaced it has been really a mere shadow of what CoCom was.

The major two factors are Wassenaar does not have a veto. That is obvious. You cannot veto what your allies are sending into controlled areas. But even more importantly we do not even have a no undercut rule. That was mentioned earlier. No undercut means that if we turn down a specific end user, we do not have an assurance from our allies that that end user will not get a product from France or Switzerland and, in fact, I have seen this happen regularly with our own machine tool builders. So that is a very critical factor and it is not something that I think is beyond our capability of achieving.

One of the points that the Stimson Commission makes is that this needs higher level attention. That we need essentially presidential involvement. But certainly a mandate from this Committee in the new law, and it is already in the Senate bill, would be very valuable.

And, finally, because I see the red light is on, I would say that when the Committee begins the drafting of the new legislation, I would note that the Senate bill is attractive not only because of what is written into the explicit law, but also what is left to the Administration and its regulators to craft. There are a number of issues that I think are extremely complex.

The history of export control legislation is mircomanagement. I would hope the Committee would leave it to the regulators to deal with certain very difficult issues, particularly deemed exports, the interagency rules that govern the process of commodity classification and the regulations surrounding what is known as EPCI, or

Enhanced Proliferation Control Initiative, that President Bush put into effect.

I have talked with the new Administration, with representatives of the Administration. They have put regulatory reform as a high priority. But it is a very complex matter, and I would hate to see them hemmed in and locked into certain positions before they heard from, for example, from experts on the subject and from industry representatives.

I will stop at that point.

[The prepared statement of Mr. Freedenberg follows:]

PREPARED STATEMENT OF PAUL FREEDENBERG, DIRECTOR OF GOVERNMENT RELATIONS, REPRESENTING ASSOCIATION OF MANUFACTURING TECHNOLOGY

Mr. Chairman, members of the Committee, I appreciate the opportunity to testify before you today on the renewal of the Export Administration Act ("EAA"). As a former Assistant Secretary for Trade Administration and Under Secretary for Export Administration in the Administration of President Ronald Reagan, and as a former Staff Director of the Senate Banking Subcommittee with export control oversight responsibility, I believe that I can offer some perspective and background on this issue. I have been dealing with this subject in a legislative context for more than two decades; and I have been testifying about export control legislation for 15 years, including the last time that comprehensive export control legislation was signed into law, the Omnibus Trade Act of 1988. From the time that I left office in 1989 until fall of 1998, I was an international trade consultant, specializing in technology transfer issues; so in addition to my administrative experience, I believe that I can also bring the perspective of someone whose clients have been regulated by export control policy to my discussion of the issue.

Today, I will be speaking on behalf of AMT—The Association for Manufacturing Technology, where I am the Director of Government Relations. AMT represents about 370 member companies, with annual sales ranging from less than $2 million to several hundred million, who make machine tools, manufacturing software, and measurement devices. Industry sales total nearly $7 billion, and exports account for more than one-third of those sales.

Your Committee is currently reviewing the adequacy of current export controls with an eye to drafting new legislation that would adapt the current control structure to the 21st Century. I will, therefore, focus my testimony on that question and how I believe that new legislation would likely affect the United States business community, in general, and the U.S. machine tool industry, in particular.

By way of introduction, however, and to put my comments into perspective, I would also like to discuss the multilateral export control regime and how that regime has affected U.S. policy, particularly in China. The most important point to be understood with regard to United States export control policy is that while it is ostensibly aimed at keeping dangerous technology out of the hands of the so-called pariahs, or rogue states, the really important issues revolve around the question of what to do about China. Unfortunately, our Government is addressing the China issue unilaterally, because there is absolutely no consensus within the Western alliance about how to treat technology transfer to China. The recent publication of the Henry L. Stimson Center Study Group, *Enhancing Multilateral Export Controls For US National Security,* noted the lack of multilateral agreement on how best to deal with countries such as China and called on the Bush Administration to put the United States Government in a leadership role in forging a consensus and improving multilateral cooperation. I was a participant in drafting that report, and a member of your Committee, Mr. Berman, was a co-chair.

It is important to remember that there is a lack of both national and international consensus regarding China. Judging from official statements over the past decade, it is unclear what U.S. technology transfer policy toward China is. China is obviously seen as a major trading partner, and great effort is put forth to ensure that U.S. companies obtain a major share of the China market, which is predicted to be the largest in the world in most capital goods categories over the next decade. Clearly, however, China is also viewed by U.S. licensing authorities as a potential technology transfer risk. This is reflected in the fact that the U.S. Government is far more rigorous (and more time-consuming) than any other industrialized state in reviewing and disapproving licenses for exports to China.

There is a myth that has grown in the popular media that U.S. technology transfer policy toward China is lax. The facts, particularly with regard to machine tools,

indicate quite the opposite. Nothing could be further from the truth than the assertion that the U.S. Government is soft in its review of exports to China. The U.S. Government has consistently been by far the most rigorous with regard to reviewing license applications for exports to China. Other countries within the Wassenaar Arrangement simply do *not* share our assessment of the risk factors involved in technology transfer to China and have generally maintained a far less stringent licensing policy. Indeed, one could say, without any equivocation, that our European allies maintain what could only be described as a favorable export licensing policy toward China. This can be illustrated by the following data.

Based on evidence gathered informally at Wassenaar meetings by the AMT technical advisor to the U.S. delegation, the following machine tool license processing times could be expected if an export license for the shipment of products or technology destined for China were to be applied for in major industrialized countries:

United States—Several months—up to a year—is the norm for difficult cases.

Germany—The longest it could possibly take is 30 days, although many take less time for processing. For a while there was a 24-hour turn-around promised by the licensing office, but because the big companies tended to camp out in the office and monopolize this service, the licensing agency has discontinued it. Nonetheless, it is only in cases of pre-license check that it takes as long as 30 days.

Italy—They expected a 30-day turn-around, with extraordinary cases involving pre-license checks to take as long as 60 days.

Japan—For their part, the Japanese said that the norm was two to three weeks, with up to a month in the cases where there was some sort of pre-license check.

Switzerland—The Swiss said two days was the norm, with the possibility that a license could take as long as 7 to 10 days to process if it were difficult.

Subsequent reports by commercial and economic officers posted at embassies in those countries have confirmed these informal license processing time estimates. When these comparative timeframes were raised with U.S. Government officials, the response that AMT received from them was that the various agencies involved almost always processed licenses within the 30-day time limit that the statute prescribes. But this time estimate fails to take into account times when the clock is stopped in order to obtain more information from the exporter, which is a quite frequent occurrence. And, even more significantly, the 30 days does not include the time that it takes to complete the Government's end-user check, which is almost always a very time consuming activity. United States companies are judged by their customers, not merely by the time that any particular agency of the U.S. Government completes its license processing but rather by the total elapsed time that it takes for delivery from the moment that the order is placed. Any legislative provisions that the Committee might consider that would be aimed at making improvements in the licensing process must include improvements in the total licensing time, not just the time that licensing officials actually have physical possession of the license.

As I have argued, the total elapsed time that it takes to process a license is only part of the problem. Official licensing statistics demonstrate that the United States Government is far more likely to disapprove machine tool licenses for China than any of our European competitors. (This is true in many other sectors such as scientific instruments, semiconductor manufacturing equipment as well; but I will concentrate on machine tool exports, where I have the most complete data.) While a mere handful of U.S. machine tool licenses have been approved during the period from 1994 to 2000 (a total of 31 licenses, or five licenses per year), trade statistics indicate that our European allies have shipped a huge volume of far more sophisticated machine tools to Chinese end-users.

China is the largest overseas market (in dollars) for U.S. machine tools, and it has the potential to grow significantly from its current total of machine tool imports from all sources of $2 billion. However, unlike other East Asian markets where U.S. market share has been substantial, U.S. machine tool sales represent a relatively small percentage of the Chinese market.

For example, South Korea is at a similar point in its economic plan as China. Both South Korea and China are developing their auto industries, high-volume consumer durables, small and medium combustion engines, and second-tier aerospace industries. Both China and South Korea have indigenous machine tool industries, but the development of their respective metalworking industries requires imported machine tools.

There is a major difference, however, in the way U.S. export control policy views the two countries. Korea is an ally of the United States and U.S. export control policy reflects that. By contrast, the U. S. Government's implementation of the Wassenaar export control list toward China is highly restrictive. One result is that in 1999, the last year in which we have complete data, China imported only 8 percent of its machine tools from the United States. By contrast, Korea, which is not subject to restrictive U.S. export controls, imported 20 percent of its machine tools from U.S. providers. If one attributes the difference in import totals to the difference in U.S. export control policy toward the two countries, it can be argued that the cost to U.S. machine tool builders of the restrictive export control policy is approximately a quarter of a billion dollars per year in lost export sales to China.

A major reason for this differential is that Western European countries are exporting to China modern machine tools that would be unlikely to be licensed by the U.S. Government. As evidence of this, the average unit prices of European machine tools in categories likely to be subject to controls are up to 250% higher than the average unit prices for machine tools in the same categories exported from the U.S. to China. In 1996, while the average unit price of machine tools sold to China by U.S. manufacturers was $155,000; the average unit price of those sold by Italy was $208,000; by Switzerland $348,000; and by Germany $407,000. Average unit prices are a key indicator of the sophistication, accuracy, and productivity enhancement of machine tools. Those factors are accounted for by higher precision, five-axis (and above) machine tools that perform more productively and thereby command a higher price. But it is precisely those characteristics that cause a machine tool to be listed on the Wassenaar list of presumably restricted technologies. If this is true, the statistics indicate that Europeans are shipping to China machines that, had they been produced in the United States, would be very rigorously reviewed by the U.S. Government, with a low probability of their being granted an export license.

The U.S. Government's rigorously enforced limits on machine tools significantly disadvantage U.S. machine tool builders in the global marketplace, since China has proved able to buy from a variety of foreign makers. The most rigorously controlled machine tools are those that possess five axes. A recent survey by AMT indicated that there are 718 different models of five-axis machine tools manufactured around the world, with 584 different models made outside the United States in countries such as Japan, Germany, France, Italy, Sweden, Spain, South Korea, and Taiwan. There are even six models manufactured in China (as the Chinese themselves displayed at the Beijing Machine Tool Show in 2001).

Chinese importers often wish to buy several machines at one time to upgrade a factory or to complete or augment a production line. The inability of U.S. manufacturers to guarantee delivery of a particular machine tool requiring a license has an amplified effect on sales of machines that do not require a license. For example, Germany's market share of machine tools imported by China is more than double the U.S. market share. The trade figures indicate that by freely selling the same sophisticated machine tools to the Chinese which would be most likely unavailable from United States manufacturers, German and other European providers are also garnering sales in the non-controlled machine tool categories as well, further disadvantaging U.S. manufacturers.

This is made even more frustrating to U.S. machine tool builders and their workers by the fact that many of the commercial aircraft factories in China contain joint ventures and co-production arrangements with American airframe and aircraft engine companies. In other words, despite the fact that these Chinese factories are supervised, or monitored, by American executives (or at least have a strong American presence to assure the production of quality components), U.S. Government export control policy creates a situation in which machine tools in those factories are almost certain to be supplied by European machine tool builders. How does that assure our national security?

As I have noted, while machine tool license applications to China are likely to be approved in a matter of days, or weeks, by our European allies, U.S. applications languish for months, or longer. Executives of U.S. machine tool companies have told me that they have decided to forego business in China if it involves an export license application. That is how discouraged they have become by the current licensing process. For their part, repeatedly over the last year the Chinese have told various U.S. companies that, in the future, they will not even ask them to bid for business, since the Chinese experience with the U.S. licensing process has been so negative and so time-consuming. For those U.S. companies who are still asked to bid, the Chinese have begun to demand a guarantee from those manufacturers that they will be able to obtain an export license from the U.S. Government for the product in question, with a penalty built into the contract if that guarantee is not met. Obviously, this is a further deterrent to doing business in China. It is expensive enough

to bid on business in China, without having to undertake the added risk of a monetary penalty for failure to obtain an export license on a timely basis. One large U.S. company told me that the new penalty clauses are enough to deter them from doing business in China, since they have been burned by the licensing process so many times.

A recent example will illustrate many of the problems inherent in attempts by U.S. companies to obtain an export license for machine tool sales to China. Last year, an AMT member asked for my assistance in obtaining final approval for an export license that had already been pending for many months. The Chinese, who were making purchases for an aircraft engine plant, informed the AMT member company that they were at the end of their patience in waiting for U.S. export license approval. This particular company had been delaying the Chinese buyer repeatedly, while it attempted to obtain an individual validated license for two five-axis machine tools. After waiting many months, the Chinese cancelled one of the two machines on order, but gave the company one last chance to obtain the export license from U.S. authorities for the remaining machine. The company was particularly eager to gain approval for this license, because its owners believed that there would be follow-up orders for as many as a dozen additional machines is they could prove that they could obtain a license for this one. The U.S. Government was aware that a Swiss company had offered to fill the order for these machine tools, and, in contrast to the American company, the Swiss made it clear to the Chinese that there would be no security conditions, or compulsory visitations by the Swiss company if they were given the business by the Chinese.

In order to create an incentive to approve the license, the AMT member company offered to provide special software that would limit the use of the machine tool to only a small group of activities approved by the U.S. Government and to provide regular visitations to ensure that the machine tool was only to be used for the jobs described in the license. While all this was being negotiated, the State Department declined to demarche the Swiss Government to warn them of the U.S. Government's concerns with the sales of machine tools to the Chinese plant. Negotiations between the AMT member and the Defense Department dragged for another two and one-half months, with none of the AMT member's security or post-shipment visitation proposals deemed adequate by DoD. Finally, just as the license, which had by then been pending for six months, was about to be escalated to the Cabinet level for resolution, the Chinese buyer informed the AMT member company that they had lost patience with the U.S. licensing process and cancelled the order. As it turned out, the Chinese plant manager had decided instead to go with the Swiss machine tool alternative, which required no post-shipment conditions and which had already obtained a license from its government months earlier.

Reportedly, when informed of the Chinese cancellation and the need to return the license without action, the comment of the Defense representative inter-agency review panel (known as the Operating Committee) was that he was happy because DoD had achieved its objective; no U.S. machine tool would be going to that Chinese factory.

Of course, the U.S. machine tool would have gone to that factory under strict conditions with numerous follow-up visits to ensure that it was being used for the purposes stated in the license, while there will be no guarantee that Western authorities will be able to check on the projects on which the Swiss machine tools will be used. Nonetheless, DoD was apparently happy, having accomplished its objective of blocking the U.S. sale, and, I presume that the State Department was happy as well, since it did not have to create friction with any of our friends or allies by taking a strong position or asking uncomfortable questions of them. The only ones who are unhappy are the owners of the U.S.-based machine tool company, who may very well move production offshore to avoid a repeat of this unpleasant and unproductive process; and, of course, the employees who may lose their jobs are not very happy either. Over the past year, two U.S. machine tool companies have begun the process of moving production offshore because of the onerous export control process they have encountered in the United States.

I would ask the Committee to consider what this case illustrates about the national security benefits of our current export control policy, other than the fact that such a policy is likely to maintain machine tool employment in Switzerland. It certainly did not have any appreciable effect on the Chinese company's ability to obtain machine tools for whatever aerospace projects they deem appropriate.

This inability to sell into the market while foreign machine tools are freely exported to China is particularly burdensome for the U.S. machine tool industry, because recent market projections have indicated that China will represent the largest and fastest growing market for commercial jet aircraft in the first two decades of the 21st Century. As recently as 1995 China represented less than two percent of

Boeing sales, today China represents more than 10 percent, and Boeing estimates that China will be the largest market outside the U.S. over the next 20 years. Within the next five years, China could account for nearly 25 percent of Boeing's total business.

In 1992, ninety percent of Boeing's aircraft components were built in the United States. Today, more than half the components are imported. China's exports to the U.S. of civilian aerospace components have grown 70 percent in the past five years. Moreover, Boeing's acquisition of McDonnell Douglas has given them an operation in which half of the MD-90 (and its successor, the 717) built each year are wholly constructed in China. Given the tremendous market power that China will possess, it is certain that the Chinese Government will demand and receive what are known as "offset" contracts to build ever greater shares of Boeing's aircraft in their own aircraft factories on their own machine tools. If the trend I have described continues, and licensing policy does not change, U.S. machine tool builders are highly likely to be displaced and replaced by their foreign competitors who will be able to take advantage of a far more lenient export licensing policy to make the sales to stock the new production lines that the Chinese will demand.

Machine tool licenses to China are but one example of a larger problem—the lack of international consensus about how to regulate technology transfer to China. Whatever technology transfer concerns the U.S. Government may have about China are not reflected in the largest and most active multilateral export control regimes to which we belong. The absence of a China reference in the text of the Wassenaar Arrangement means that there are no internationally agreed upon rules or standards that the U.S. Government can cite to induce our allies to follow our lead with regard to China technology transfer policy.

Indeed, our former adversary, Russia, is a charter member of the Wassenaar Arrangement, and China would see any United States Government attempt to make them a target of this export control regime as a hostile act. In fact, discussions were held in 1998, with the goal of making China a Wassenaar member. I note all of this in order to provide some perspective regarding the degree to which the United States Government lacks leverage in denying technology to China. The United States Government may decide not to sell machine tools, or satellites, or scientific instruments, or semiconductor manufacturing equipment to China, but that does not obligate the Japanese, the Germans, or the French to follow our lead.

That is a fundamental problem with the current export regime. Not only does it indicate a lack of discipline regarding a country with which the United States Government has indicated technology transfer concerns; it also puts U.S. companies on an uneven playing field with regard to sales to what is likely to be the fastest growing and largest market for capital goods over the coming decade. Repeatedly over the past few years, whether it is in the category of machine tools, or semiconductor production equipment, or scientific instruments, the United States Government has taken a negative approach to technology transfer to China while our allies have not. The result has been that the Chinese are denied nothing in terms of high technology, but U.S. firms have lost out in a crucial market. This serves neither our commercial nor our strategic interests.

RECOMMENDATIONS

I am sure that this Committee is aware of the fact that the authority of the Export Administration Act will lapse on August 19, 2001. As you also know, in the 1990s, both the first Bush Administration and the Clinton Administration extended that authority under the pretense of an emergency that did not exist by virtue of invoking the International Emergency Economic Powers Act ("IEEPA"). The EAA, which was extended repeatedly under the authority of IEEPA, was last amended in a significant way while I was serving the Reagan Administration as Under Secretary for Export Administration in 1988, a year before the fall of the Berlin Wall and three years before the collapse of the Soviet Union. These facts would seem to be reason enough to justify the passage of a new, revised EAA to guide export controls in the 21st Century. A comprehensive rewrite of the Act is long overdue.

As I see it, one of the most important provisions that you could write into any renewal of the Export Administration Act would be a section similar to that found in the Senate bill, S. 149, which defines "foreign availability" in terms of the reality in which U.S. companies compete today. Current law defines "foreign availability" as any item that can be supplied from *outside* the multilateral export control system in sufficient quantity and comparable quality so as to make the existing export controls on any particular item ineffective in achieving the objective of the controls. S. 149 seeks to adapt that element of current law to the era in which we live today, which is an age of weak to non-existent multilateral controls and a multilateral sys-

tem with rules of the game that allow any member country to decide whether to license a product on the basis of "national discretion." Importantly, the bill acknowledges that "foreign availability" can exist within a multilateral control system, not just outside that system.

The key provision in S. 149 is found in Section 211(d)(1), which states: "The Secretary shall determine that an item has foreign availability status under this subtitle, if the item (or a substantially identical or directly competitive item) (A) is available to controlled countries from sources outside the United States, *including countries that participate with the United States in multilateral export controls [emphasis added];* . . ."

I would consider the inclusion of such language in any EAA reauthorization reported by this Committee to be of critical importance to the creation of a fair and equitable "foreign availability" definition, one that reflects the new reality in which U.S. companies find themselves. Any new EAA should not be allowed to perpetuate the fiction that the current multilateral export control system functions effectively to deny technology to targets of that regime, particularly China, which I have argued has, at best, an ambiguous status in relation to the Wassenaar Arrangement's list of restricted technologies. Not to give U.S. companies the right to petition for relief from a system which allows trade competitors to use the multilateral system to garner new business by taking advantage of lax, or non-existent, national export control systems, would be to perpetuate an anachronism in the law, one which would be grounded in an era that no longer exists.

Earlier I noted that the Stimson Study Group report emphasized the need to strengthen the multilateral structure for export controls. By way of brief history, the end of the Cold War led to the end of CoCom—the international coordinating committee that regulated technology transfer since 1949. When CoCom officially went out of business on March 31, 1994, our leverage for limiting technology transfer on a multilateral basis disappeared as well. CoCom was created in the same year as NATO, and it stood with NATO as one of the pre-eminent tools of the containment strategy that guided our policy for more than forty years. The guiding premise was that the West could not match the Soviet Union and its allies man for man, tank for tank, or even missile for missile. Moreover, if the West maintained tight multilateral controls over the transfer of technology to the East, we could use our superior technology as a force multiplier that would tip the scales to our benefit. The Soviets and their allies could produce great numbers of weapons and keep large numbers of men under arms, but our technological superiority would more than compensate for that numbers deficiency. One example of the validity of this assumption was demonstrated in the 83 to 1 victory of U.S.-built F-15s and F-16s over Soviet-built MIG 21s and MIG 23s over Lebanon's Bekkha Valley in 1982. While pilot skill played an important role in that victory, technology was the critical factor.

The successor regime to CoCom is, as I have noted the Wassenaar Arrangement, named after the Dutch city in which it was founded. It came into existence in 1996. Unfortunately, Wassenaar has none of the elaborate rules or discipline that characterized CoCom. Most importantly, the United States Government no longer has a veto over the goods and technologies exported to the target countries of Wassenaar. The current multilateral export control regime is based on what is known as "national discretion." Each Wassenaar member makes its own judgments about what it will and will not license for export and, as a matter of fact, whether to require an individual validated license ("IVL") at all. Other multilateral export control regimes, whose focus is non-proliferation (such as the Nuclear Suppliers Group, the Missile Technology Control Regime, and the Australia Group), do obligate signatories to require an IVL for the export of proscribed items to non-members, but Wassenaar does not.

China is not identified as a target of Wassenaar. In fact, during the negotiations which led up to the formation of Wassenaar, the U.S. representatives explicitly assured other potential members that Wassenaar was created to keep dangerous weapons and technologies out of the hands of the so-called rogue and pariah states: Iran, Iraq, Libya, and North Korea. China was never mentioned as a target of Wassenaar.

That is why it is necessary to create a mandate in your bill calling on the Administration to strengthen the existing multilateral export control regimes and to annually report to Congress on progress in that endeavor. Section 601 of S. 149 does that and is very much in keeping with the recommendations of the Stimson Study Group. Indeed, I believe that this is such a critical area that I would suggest that you go beyond the Section 601 mandate by creating some sort of an oversight mechanism to provide pressure on the Administration to vigorously pursue the multilateral goals established in that section.

As I have argued, Wassenaar provides weak guidance and almost no discipline upon its members. In some ways, it is worse than having no multilateral regime at all, because it gives the appearance of restricting technology transfer, while leaving all the key judgments up to its constituent members. To get an idea of how weak an export control regime it really is, one only has to ask what useful information the United States Government can obtain about the technology transfer decisions of other regime members. Under the rules of the Wassenaar Arrangement, the United States Government is not entitled to information about the licensing decisions of any other regime member unless that member is licensing an export to an end-user to which the U.S. Government has previously denied a license. And then, the Government in question is only obligated to inform the U.S. Government within sixty days of the decision to license, most likely after the technology or product in question has already been shipped. Such an obligation on Wassenaar members can hardly be called discipline.

I agree with the goals created in S. 149, that revisions of the Wassenaar Arrangement charter ought to include far better regime member discipline, including improved rules for information exchange. One idea that Section 601 proposes that would be particularly valuable would be to institute the "no undercut" rule within Wassenaar. The "no undercut" rule obligates all members of the regime to deny a license to any end-user who has been denied a license by any other member of the regime. The adoption of that rule alone would ensure that U.S. companies, such as those I have described in the machine tool industry, are not alone in denying their products to end-users in China when their licenses are denied by the U.S. Government. This amounts to unilateral export controls, and it is particularly frustrating, because the current Wassenaar Arrangement export control regime allows the Chinese to simply turn to another Wassenaar member in order to obtain the very same product, frequently with no delay or conditions. In the process, the Chinese are denied nothing, while the U.S. companies develop a reputation as unreliable suppliers.

As the Committee begins the task of drafting export control legislation, I would note that one of the reasons that I find S. 149 attractive is not only what is written into explicit law but also what is left to the Administration and its regulators to craft. As a veteran of more than 20 years of export control legislation, either staffing Senators, representing the Administration, or lobbying and testifying on behalf of clients and constituent companies, I can tell you that the tendency of Congress in the past has been to attempt to micro-manage export licensing through detailed legislative provisions that spell out each and every step in the process. There also has been a tendency to legislate specific technology classifications or the metric for the parameters of controlled items through legislation. Until 1988, there was even a prohibition of the export of live horses by sea for slaughter written into the legislation.

I urge you to resist the temptation to micro-manage in your legislative drafting. This does not mean that you should not spell out the authorities of the various agencies involved in the licensing process. But detailing every last step in the licensing and inter-agency appeals process needlessly complicates the work of the policy-makers and regulators and frequently adds extra steps to the already complicated and time-consuming ordeal that exporters have to go through in order to obtain a license. Specifically, three issues that I would suggest ought to be left to the Administration's policy-makers are the following: 1) the so-called "deemed exports" regulations; 2) the inter-agency rules that govern the process of commodity classification; and, finally 3), the regulations surrounding the "Enhanced Proliferation Control Initiative," or EPCI regulations, instituted in 1991 by President George H.W. Bush.

I would agree that the rules governing these three issues are in need of revision and updating. But, after detailed discussions with representatives of the new Administration, it is also my understanding that the Bush Administration has put a high priority on the issuance of new regulations in all three of these areas. The Administration prefers, however, to do so after the normal hearing and comment period, with, of course, industry participation. I am concerned that if Congress locks in the regulators through specific, detailed language, the policy-makers will lose the flexibility they need in order to adapt the current regulatory language to the changing technological environment of the 21st Century. I would, therefore, urge you to allow the regulatory process to work through the intricacies of these issues and to exercise legislative restraint when dealing with them.

Whatever you decide, I am convinced that our nation needs more than just a "feel good" China policy, or a "feel good" renewal of the EAA. We need to ask if it is possible to convince our allies to share our strategic vision of China (assuming that we ourselves have concluded what that vision is). As the Stimson Study Group warned, at the current time, we do not have a multilateral technology transfer organizational structure that is conducive to entering into a debate about China—let alone

one that would be able to enforce standards and rules about technology transfer if such a consensus were to be reached. Without such a multilateral technology transfer structure and without a clearer idea of what U.S. technology transfer policy toward China ought to be, it will be difficult to draft an EAA that is an effective guide to policy.

I hope that these comments will be helpful to your consideration of any new export administration legislation. I would be happy to answer any questions that the Committee might have.

Chairman HYDE. Thank you, Dr. Freedenberg.

And Mr. Hoydysh?

STATEMENT OF DAN HOYDYSH, WASHINGTON DIRECTOR, UNISYS, REPRESENTING COMPUTER COALITION FOR RESPONSIBLE EXPORTS

Mr. HOYDYSH. Thank you, Mr. Chairman, for inviting me to present the views of the Computer Coalition for Responsible Exports on an issue that is of critical importance to the security of the United States and the technological preeminence of the American computer industry. I will briefly summarize my testimony and request that the full text be submitted for the record.

Before I begin my summary, I would like to make a statement concerning my former alma mater, the Commerce Department. I would like to note that despite Commerce being in charge of the export control process, we won the Cold War and in fact we whipped the Soviets pretty well, so I do not think we need to be overly concerned about the role that the Commerce Department plays in export controls.

There is a growing consensus among industry, government and national security experts that our export control system is broken, especially as it relates to computers. We need your help to fix it. Let me briefly explain why the system is broken and what needs to be done.

The current export control system has its roots in the Cold War. It was created over 50 years ago to destroy the military and economic capabilities of the Soviet Union. During the Cold War, building a wall around commercial computers made sense for the following reasons.

First, computer systems were large and expensive proprietary systems. For example, the first commercial computer, the ENIAC, weighed over 3,000 pounds, took 3 years to build by hand and cost 1 million in 1951 dollars.

Second, the U.S. had a virtual monopoly on computer technology. If we did not sell it, no one else could.

Third, the volume of sales was relatively low and most of the sales were in the United States. Since only several thousand ENIACs were sold in the first years of production, monitoring the disposition of each system was relatively easy.

Finally, we had a clearly defined enemy, the Soviet Union, which posed a clear and present danger to the survival of the western democracies.

All that changed dramatically about 10 years ago with the introduction of the microprocessor and the collapse of the Berlin Wall. Let me briefly explain how these two events have affected our ability to control computing power.

In my hand I am holding two Intel chips, a Pentium and the new Itanium. The latest version of the Pentium has a rating of about 4500 MTOPS. The Itanium, which will be in volume production at the beginning of next year, will have a rating of about 6000 MTOPS. Each of these chips represents more computing power than all of the ENIACs sold in the early 1950's.

Microprocessors such as these have enabled the production of ever smaller, cheaper and more powerful computers that are easily assembled from commodity parts readily available on the global market.

For example, here is an ad from the Sunday paper for a Pentium IV personal computer, which performs at 4500 MTOPS for about $2000. That is less than 50 cents per MTOP. Just 10 years ago, a machine of comparable power would have cost roughly between 5 and 10 million dollars. That is about $1000 per MTOP.

Because of lower prices and increasing demand, sales of microprocessor-based computer systems have skyrocketed, from thousands to hundreds of millions per year, making it virtually impossible to track the disposition of individual systems, especially since over 50 percent of future sales will be outside the U.S.

The doubling of chip performance every 12 to 18 months have made controls based on a performance metric such as MTOPS ineffective and burdensome. This performance trend, known as Moore's law, is expected to continue for at least the next 10 to 15 years. It is projected that new manufacturing techniques will permit within 5 years the production of widely available chips that operate between 50,000 and 100,000 MTOPS. That is for one chip.

Foreign competition, unknown during the early years of the Cold War, has emerged as a serious threat to our technological and market dominance. Now if we do not sell it, someone else will.

Finally, the Cold War multilateral consensus on a common enemy has evaporated in the heat of global competition for markets.

Under these conditions, controls on exports of commercial computers have become increasingly ineffective and counterproductive. They are ineffective because they simply do not prevent target countries from acquiring or accessing computer power and they are counterproductive because they undermine the technological preeminence of the U.S. computer industry, which is one of the pillars of our military superiority.

So what should be done?

First, we need your support to eliminate the requirement of the National Defense Authorization Act that MTOPS must be used when setting control thresholds. It is now recognized by industry, the Defense Department, national security experts and even the GAO that MTOPS is an obsolete and flawed metric. Rapidly advancing microprocessor power and new architecture make any control threshold based on performance obsolete before the ink is dry on the regulations. Until these MTOPS handcuffs are eliminated, the President cannot implement an effective control regime that will be compatible with technological and competitive reality.

Second, until a new control regime is developed, we need to continue to raise MTOPS levels to reflect advances in technology. We will need a substantial increase in the control thresholds toward

the end of this year when the new Itanium based systems come on line.

For example, the MTOPS level of a common business server with 32 processors used for e-commerce applications will increase from about 50,000 MTOPS to about 190,000 MTOPS.

Third, we need to enact a comprehensive Export Administration Act that will permit the President to craft an effective export control system that protects our security in the networked world without damaging our competitiveness in the global market.

Finally, industry and government must work cooperatively to do a better job of integrating state-of-the-art information technology into our military systems. The real key to security in the 21st century will be to run faster than potential adversaries, not to control the uncontrollable. We are ready to work with the Congress and the Administration to achieve these goals.

I will be glad to answer any questions you might have.

Thank you.

[The prepared statement of Mr. Hoydysh follows:]

PREPARED STATEMENT OF DAN HOYDYSH, WASHINGTON DIRECTOR, UNISYS, REPRESENTING COMPUTER COALITION FOR RESPONSIBLE EXPORTS

Mr. Chairman, Members of the Committee.

Good Afternoon. My name is Dan Hoydysh. I am Director of Trade, Public Policy & Government Affairs at the Unisys Corporation. I also have the privilege of serving as Co-Chair of the Computer Coalition for Responsible Exports (CCRE) and am testifying today on CCRE's behalf (a curriculum vitae is attached). I want to thank you for providing me and CCRE with the opportunity to share our views on U.S. computer export controls.

OVERVIEW OF TESTIMONY

In our testimony today, we want to highlight the overwhelming, bipartisan consensus that the current export control system fails to effectively advance U.S. economic and national security interests. In particular, we want to emphasize the widespread agreement among U.S. defense and security experts that the current system for controlling computer exports is ineffective because it does not account for modern changes in technology and international market conditions. CCRE supports reform legislation like the bill currently pending before the Senate—S. 149, the Export Administration Act of 2001—as well as H.R. 1553, which is currently pending before the House. Both of these bills represent a critical step forward because they empower the President to determine both what computers should be controlled and how they should be controlled. CCRE also believes that the new EAA could be strengthened by clarifying that a relevant Risk Assessment Factor is whether the capability or performance provided by an item can be effectively controlled. Finally, CCRE wants to emphasize that time is of the essence and that export control reform legislation needs to be enacted this year.

THE COMPUTER COALITION FOR RESPONSIBLE EXPORTS (CCRE)

CCRE is an alliance of American computer companies and allied associations established to inform policymakers and the public about the nature of the computer industry—its products, market trends, and technological advances.

CCRE members include Apple Computer, Inc., Compaq Computer Corporation, Dell Computer Corporation, Hewlett-Packard Company, IBM Corporation, Intel Corporation, NCR Corporation, SGI, Sun Microsystems, Inc., Unisys Corporation, the American Electronics Association (AEA), the Computer and Communications Industry Association (CCIA), the Computer Systems Policy Project (CSPP), the Electronic Industries Alliance (EIA), the Information Technology Industry Council (ITI), and the Semiconductor Industry Association (SIA).

CCRE is committed to promoting and protecting U.S. national security interests, and seeks to work in close partnership with the Congress and the Executive Branch to ensure that America's economic, national security, and foreign policy goals are realized. CCRE also believes that a strong, internationally competitive computer in-

dustry is critical to ensuring that U.S. national and economic security objectives are achieved and that U.S. economic and technological leadership is maintained.

The U.S. computer industry has a long history of cooperation with the U.S. government on security-related high technology issues. We take our responsibilities in the area very seriously. CCRE members strongly believe that U.S. national security is tied to U.S. technological leadership. U.S. computer companies also devote hundreds of employees and millions of dollars annually to complying with export control regulations. It is not our role, however, to define U.S. national security needs—that is for the Congress and the Executive Branch. Rather, we do and will continue to provide the Congress and Executive Branch with information concerning the rapidly changing technology and international market conditions that we believe they need to take into consideration in shaping up-to-date and effective U.S. export control policies.

INTRODUCTION

CCRE would like to begin our remarks today by thanking this Committee for devoting its time and attention to the export control issue. It has been a long road to reform, and we are hopeful that the Congress will pass bipartisan legislation that brings the export control system into the modern era. As you are aware, the Senate bill has the endorsement of the Administration because it "strengthen[s] the President's national security and foreign policy authorities to control dual-use exports in a balanced manner, which will permit U.S. companies to compete more effectively in a global marketplace." CCRE supports S. 149 because, most fundamentally, it provides the President with the authority and flexibility needed to implement up-to-date and effective computer export control measures. We hope that this Committee will draft a bill that similarly reflects the need for Presidential empowerment to modernize the export control regime.

THE CURRENT EXPORT CONTROL SYSTEM IS INEFFECTIVE: A CONSENSUS VIEW

The Henry Stimson Center's recent study on *Multilateral Export Controls for U.S. National Security* reflects the widespread consensus that the current export control system is a relic of the Cold War that "fail[s] to keep pace with changing international conditions and often falls short of adequately protecting U.S. national security interests." CCRE shares the Stimson Study's assessment that the current export control system needs to be "adapted to the global economic, strategic, and political realities of the 21st century." Of particular concern to CCRE, we need to modernize the outdated system governing U.S. computer exports.

As you are aware, the Center for Strategic and International Studies (CSIS) recently released its report on *Computer Exports and National Security in the Global Era,* finding that the current computer control system mandated by the National Defense Authorization Act (NDAA)—which requires the President to use the MTOPS (millions of theoretical operations per second) metric to measure computer performance and set export control thresholds based on Country Tiers—is "ineffective, given the global diffusion of information technology and rapid increases in performance." The CSIS report concludes that "MTOPS are increasingly useless as a measure of performance . . . MTOPS cannot accurately measure performance of current microprocessors or alternative sources of supercomputing like clustering. This makes MTOPS-based hardware controls irrelevant. . . . The best choice may be to simply eliminate MTOPS."

The CSIS study is the most recent of a host of expert reports that reject the computer control system mandated by the NDAA. A recent Department of Defense report concludes, for example, that "MTOPS has lost its effectiveness as a control measure . . . due to rapid technology advances." On this point, DoD has emphasized that:

> Controls that are ineffective due to market and technology realities do not benefit national security. In fact, they can harm national security by giving a false sense of protection; by diverting people and other finite export control resources from areas in which they can be effective; and by unnecessarily impeding the U.S. computer industry's ability to compete in global markets.

The General Accounting Office's report to the Senate Armed Services Committee similarly concludes that the MTOPS standard is "outdated and invalid" and that "[t]he current export control system for high performance computers, which focuses on controlling individual machines, is ineffective because it cannot prevent countries of concern from linking or clustering many lower performance uncontrolled computers to collectively perform at higher levels than current export controls allow." Finally, the Defense Science Board echoes this same analysis, warning that

"[c]linging to a failing policy of export controls has undesirable consequences beyond self-delusion."

In essence, U.S. defense and security experts now agree that the NDAA's MTOPS regime is outmoded and needs to be dismantled. The recommendations of the CSIS, DoD, GAO, and DSB highlight the President's need for administrative authority to design and implement more appropriate types of controls to advance U.S. national security. CCRE believes that, with respect to computers, this can only be accomplished if the NDAA computer provisions are repealed.

THE NEED FOR REFORM LEGISLATION

The key to implementing effective national security controls is the ability of the President, Secretary of Commerce, and Secretary of Defense to review the National Security Control List and determine whether an item can and should be controlled. The decision of whether or how to control an item is the most fundamental, threshold step in export control administration. In making this risk assessment, the President needs to consider not only U.S. national security goals, but rapidly changing developments in technology and international market conditions. The President therefore needs the flexibility to implement up-to-date and effective export control measures.

Notwithstanding the simplicity of this basic framework, its application to computers is seriously undermined by NDAA, which imposes mandatory, rigid controls on high performance computer (HPC) exports. As a general rule, it is a bad idea to legislate static technological standards to address dynamic technological challenges. The NDAA violates this principle by requiring the President to use the MTOPS metric to measure computer performance and set export control thresholds based on Country Tiers. Although there is now an overwhelming consensus that the NDAA approach is ineffective, the NDAA continues to severely limit the authority of the President to determine both what computers should be controlled and how they may be controlled.

CCRE wants to emphasize that the flexibility needed to effectively administer export controls—such as that contemplated in Section 202 of S. 149, for example—would be essentially nullified in relation to computers if Congress fails to repeal the NDAA computer provisions. Put another way, if the NDAA computer provisions are not repealed, the computer industry will be the only industry that is left behind in the export control reform process. CCRE therefore supports the legislation currently pending before the House, H.R. 1553, which would repeal the NDAA's outmoded computer provisions, as well as Section 702(k) of S. 149, which accomplishes the same.

We wish to emphasize that a decision to repeal the NDAA's computer provisions will not alter the way in which computer exports are currently controlled under the Export Administration Regulations (EAR). If the NDAA computer provisions are repealed, the current MTOPS-based regime will continue to remain in place and controlled computers will remain on the National Security Control List. What would change, however, is that the President, Secretary of Commerce, and Secretary of Defense would be empowered to reassess the effectiveness of these controls in the future pursuant to the EAA framework.

As discussed above, the need for Presidential flexibility in administering computer export controls is especially clear in light of recent reports by CSIS, the Department of Defense, the General Accounting Office, and the Defense Science Board, all of which conclude that the rigid MTOPS-based approach required by the NDAA is obsolete and fails to advance U.S. national security.

CCRE also believes that the new EAA can be strengthened if the Risk Assessment Factors listed in the statute are clarified. Section 202(b)(2)(C) of S. 149, for example, states that among the risk factors that the Secretary shall consider are "[t]he effectiveness of controlling the item for national security purposes of the United States, taking into account mass-market status, foreign availability, and other relevant factors." While the catch-all "other relevant factors" is conspicuously broad, we believe that this provision should prominently list an additional factor central to the concept of controllability—whether the capability or performance provided by the item can be effectively restricted.

To be sure, the foreign availability or mass market status of an item is not the only consideration relevant to an item's controllability. Consider, for example, that while various U.S. computer systems have not yet attained mass market status, the equivalent computing power can be easily achieved by "clustering" several widely-available, low-level systems. In this regard, CSIS, DoD, the GAO, and the DSB all agree that while the most advanced stand-alone high performance computers may be controllable, high performance computing is not. For precisely this reason, CCRE

believes that explicit among the new EAA's Risk Assessment Factors should be the consideration of whether the capability or performance provided by the item can be effectively controlled.

Finally, CCRE believes that reform legislation needs to be enacted this year. Every major study identifies the failure of the current export control system to keep pace with rapidly changing technologies and international market conditions and concludes that the current system is adversely affecting our national and economic security. This is true generally, and is especially applicable to the computer export control system, which is constrained by the ineffective and outmoded MTOPS straitjacket. In light of the widespread consensus in the U.S. defense and security community, and the urgent need to effectively advance U.S. national and economic security interests, CCRE believes that timely action is critical.

CONCLUSION

In summation, CCRE thanks this Committee for its attention to the export control issue. Given the overwhelming consensus that the current export control system generally—and the computer export control system particularly—are outmoded and ineffective, we hope that this Committee will craft a bill that delivers meaningful export control reform. CCRE supports H.R. 1553, as well as the Senate bill, S. 149, as important steps forward because they repeal the NDAA computer provisions and, in doing so, empower the President to determine both what computers should be controlled and how they should be controlled. CCRE also believes that the new EAA could be strengthened by clarifying that a relevant Risk Assessment Factor is whether the capability or performance provided by an item can be effectively controlled. Finally, CCRE believes that action this year is critical.

CCRE remains committed to working with the Congress and the Executive Branch in helping to formulate solutions that effectively advance U.S. economic and national security interests. We thank the Committee for its attention to these important issues.

Chairman HYDE. Thank you, Mr. Hoydysh.

Mr. Blumenauer.

You have been very patient, by the way.

Mr. BLUMENAUER. Thank you, Mr. Chairman. And it is interesting to have a chance to reflect on this testimony. I appreciate your organizing this hearing for us today.

I am curious if any of you three gentlemen have any evidence that the current regime that we have been employing, given all its limitations rooted in the Cold War and the different strategic and technological landscape, has it worked?

Has it prevented rogue nations from getting access to technology to help them assemble weapons of mass destruction? Or is their current state of military readiness, or lack thereof, subject to some other limitations in terms of their ability? Is it this regime that has prevented them?

Mr. FREEDENBERG. I could deal with that. I think when we saw the collapse of the Soviet Union we saw how effective the export controls were. They had virtually no technology. Their phone system was essentially Dixie cups and strings. They had the world's largest microprocessor, but they really had nothing. And that had a very big effect on their military capability and I think it was one of the major reasons they turned to Gorbachev, because he was a reformer and he promised to bring some technology into the regime.

That does not mean, however, that the export control regime is by any means perfect, and it can be a very great restraint. We are talking about American competitiveness in this case. You know, you can cut off your potential enemies, but also strangle yourself in the process. What we are talking about in this case, and what Senator Gramm was talking about, is creating a regime that effec-

tively limits technology, technology that is important, but also allows American companies to be competitive in world markets, and that is essentially what the new export control legislation ought to do.

Mr. HOYDYSH. If I could comment on that as well. There are four multilateral export control regimes. Three of these are aimed specifically at weapons of mass destruction: the Nuclear Suppliers Group, MTCR, and the Australian Group. MTCR is the Missile Technology Control Regime. The fourth one is the Wassenaar Arrangement. None of the weapons of mass destruction regimes actually target general purpose computers because of the general understanding among our allies and friends that computers are not a choke point technology for making weapons of mass destruction.

Most of the missiles and the weapons that we have in our own arsenal were designed with computers that are half as powerful as those that are available in consumer department stores.

The regimes aimed at weapons of mass destruction are relatively effective because there is agreement in the international community that the objective is very important. So they do work, especially in terms of controlling items that are specifically identified on these lists.

The regime which is the weakest is the Wassenaar Arrangement, which is the one that deals with general purpose computers. Implementation of the Wassenaar Arrangement is left entirely to the discretion of each country to decide what to approve or what not to approve. There is no requirement for consultation, there is no veto power by anyone and basically it is every country for itself. So I think if you look at export controls in general there is something to be said about the weapons of mass destruction regimes and focusing on those and trying to strengthen those. I think when you are talking about the Wassenaar Agreement, there seems to be little hope of revitalizing it. I do not think that is a very effective regime at all.

Chairman HYDE. May I?

Mr. Hoydysh, I hope I did not mishear you. Did you say computers have no role to play in developing weapons of mass destruction?

Mr. HOYDYSH. I said that computers are not considered a choke point technology in the sense that the levels of computing necessary to develop entry level weapons of mass destruction are so low that they have been available on the mass market or from any variety of sources for almost a decade.

The computer industry has never maintained that computers cannot be used for military purposes. However, we are saying that computing power is not in the critical path to make weapons of mass destruction. Even if U.S. companies do not sell a single computer, people will still be able to make weapons of mass destruction.

Chairman HYDE. Well, we have had a hue and cry about a comprehensive test ban treaty and it is my understanding, however imperfect, that computers can simulate circumstances that make testing of nuclear weapons unnecessary because the computer simulates whatever they need to test. Is that true?

Mr. HOYDYSH. It is my understanding that the computers that we are talking about that are used for this purpose are extremely large and powerful. This is the kind of system that is specially made for Los Alamos and some of the other labs.

Chairman HYDE. Right.

Mr. HOYDYSH. These systems have on the order of 10,000 plus processors, specially wired together for this particular purpose. I also understand, and I am not a nuclear weapons expert by any means, that those computers are primarily useful for people who have a large amount of test data that they can then use with——

Chairman HYDE. Like China.

Mr. HOYDYSH. This is something that the Defense Department would be better able to speak to than I—I am not sure that China is considered to have that much test data that these computers would be useful to them.

Chairman HYDE. I understand. I appreciate that.

Mr. BLUMENAUER. Of course they have access to all our test capacity, I think, if we are talking about the Chinese.

Mr. HOYDYSH. Well, you had better talk to Los Alamos because I have no idea about that.

Chairman HYDE. Mr. Smith.

Mr. SMITH. Please comment on re-export controls. We can name 8 to 10 to 20 suspicious countries that we need to be more rigorous in our review of what kind of equipment is sent to those countries. But for the rest of the world, please comment on re-export, in terms of physically re-exporting and developing the technology from the equipment they have to export and then follow that up maybe with your reaction to whatever we might have in terms of a memorandum of understanding with China regarding our ability to perform post-shipment review of what is happening to particular equipment that is sent to China?

Mr. HOYDYSH. As I understand it, as a general rule, the United States is the only country that has a rigorous regime of enforcing export and re-export controls. It is against the law for the end user to re-export it to a third destination without U.S. Government approval.

Mr. SMITH. I think my question is the success of it or the discipline of it, is it working and do we have the kind of policing ability to know whether it is working.

Mr. HOYDYSH. My guess would be—and this is something that the Commerce Department would have to testify about—that it probably is not as effective as it could be. When you are talking about computers, when you have an installed base of half a billion units and you add to that a 150 million units a year, it really is very hard to police.

With all the various distribution channels and resellers in the world selling items back and forth, it is a virtual impossibility to have a really tight hold on it. That does not mean that we cannot do a better job of it, it does not mean that we do not need some more resources devoted to it, but as a general rule, the U.S. is the only country that really takes this stuff seriously, as evidenced by the fact that we are holding hearings on this issue.

Mr. SMITH. Dr. Cupitt, Dr. Freedenberg?

Mr. FREEDENBERG. The problem is they worked well in the time when we had CoCom. They do not work well any more because we have national discretion. If we have a situation in which the U.S. imposes the export controls and a competitor does not, it is a very high incentive to go with the competitor.

That is not the case with regard to machine tools which, unlike computers, there are very few that are sold to China, and they are very easy to track, so all of them that go to, for example, China have the export controls on them, and many conditions on them, and have post-shipment verification. But when you get into smaller products, computers, scientific instruments, it is almost impossible to track them once you get a volume into a country.

Mr. CUPITT. I would like to speak to the post-shipment verification issue, especially relating to China. I guess I have probably spoken to almost everybody who has done a PSV, both in the Chinese government and in our government. And there has been, I guess, now well over 100 since the summer of 1998 when the new memorandum was put together. I think many of the kinks have been worked out so that there is a recognition, I guess, a development of trust by the Chinese side that the U.S. is not trying to exploit post-shipment verification to discover proprietary information about customers and those sorts of things and activity. And while I would judge it as moving fairly smoothly, it is still very difficult.

The Chinese, for instance, have a very difficult time getting the budget for participating in the post-shipment verification process, not unlike our own Commerce Department which also has had at times budget problems, especially when the mandate was very large under the National Defense Authorization Act to look at many, many, many computers, high-performance computers, in two or three countries.

Mr. SMITH. My time—I am in my last 30 seconds.

Mr. Hoydysh, I understood you to say do not be quite so concerned with restricting what we export but in the new technology age we are going to have to simply run faster. What does that mean?

Mr. HOYDYSH. Run faster means that industry and the Defense Department have got to figure out a better way and a faster way of integrating state-of-the-art technology into their weapons systems, state-of-the-art information technology in particular.

If you look at the equipment that is in the airplane that was forced down over China, it was about two or three generations old. Part of the problem is simply the procurement process. It takes too long for the Defense Department to procure equipment. This is something that needs to be focused on in the sense of getting our military more efficient, more agile, better able to quickly absorb the newest technology that is being produced by the private sector. Fifty years ago all the new technology was produced by the Defense Department—today the commercial sector has taken the lead.

Mr. SMITH. But if it is a case of weapons, then some of the third and fourth generation weapons are still pretty effective. Run faster means partially run better.

Mr. HOYDYSH. We have a tremendous lead over all potential adversaries in our communications and in our weapons systems and in our operations. We have to maintain that lead and even extend

that lead by getting more efficient at utilizing the technology of the private sector.

Mr. SMITH. But you are not suggesting that we relax dual-use technologies that are obviously very capable of being used in military equipment building?

Mr. HOYDYSH. Absolutely not. What we are suggesting is that performance—let me step back for a minute. What we are suggesting in this testimony is very simple. We think we need to pass a Export Administration Act fairly quickly. It is something that is necessary to create a framework—the Administration will go through the process of determining exactly what the new regime looks like, but it needs this act—the act must be passed in order for the Administration to be able to begin work on creating a new system.

In particular, we need to have the MTOPS parameter removed from legislation. Right now, the President is required to use MTOPS as a measure for computer performance in terms of determining control thresholds. It has been agreed by almost everyone, including the GAO and including Senator Thompson in his testimony today, that MTOPS is no longer a valid parameter.

I think we need to separate the process of creating a framework for an export administration system from the export administration system. This statute will create a framework. It is not a statute that is aimed at China in particular or anybody in particular. It will give the President the authority to do what is right to create a proper system.

Mr. SMITH. Thank you, Mr. Chairman.

Chairman HYDE. The gentleman's time has expired.

We have Mr. Flake and Ms. Davis.

Do either of you have questions?

Mr. FLAKE. Yes, I do.

Chairman HYDE. Mr. Flake, I think Ms. Davis is probably ahead of you.

Am I right?

Okay. Mr. Flake.

Mr. FLAKE. I will be glad to defer.

Chairman HYDE. Go ahead.

Mr. FLAKE. Mr. Hoydysh, as you know, I am one of the sponsors of H.R. 1553 to get rid of the MTOPS standard. I thought you could explain what might happen under a scenario if it were not listed, you know, that it has been limited—in 1995, I believe it was 2000, 2001 it was 8500, it keeps doubling and doubling and doubling. You say now it would be capable of 190,000 or so with a few computers hooked together. What would happen under a scenario if we did not reauthorize? Could you tell us what would happen to the computing industry?

Mr. HOYDYSH. Well, if we did not move the MTOPS level to reflect advances in technology, a company like my company which under the current regime has very few export licenses would go to a regime in which all of our products would be subject to export licensing because of the introduction of the Itanium chip. So what we are looking at is it is kind of step function—we will go from a zero to one. As soon as these chips are integrated into new computers, most of the systems will be above the threshold and will re-

quire licensing from the Commerce Department. They will also require, very rigid and strict security arrangements to keep certain foreign nationals from even looking at those machines.

Yet the new systems differ from the old systems only in that they have a new processor inserted within the same box that is used for e-commerce and other commercial applications.

Mr. FLAKE. That would certainly negatively impact your ability to compete if the others overseas move much faster.

Mr. HOYDYSH. Absolutely because we are the only export control regime that takes control seriously, as is evidenced again by the fact that we are having a hearing on this issue.

Mr. FLAKE. Do any of the witnesses see any reason to continue with the current MTOPS standard or to continue to try to ratchet it up? Should it simply be scrapped?

Dr. Freedenberg?

Mr. FREEDENBERG. I see no reason to continue. The problem is that you have a standard that is essentially based in the past, and we have changed to a network world. We have changed to a much different situation, so one has to develop a different way to control products.

Mr. CUPITT. If you are seeking to establish a framework. I think with MTOPS you are heading in the wrong direction, you are heading toward micromanagement again—an expression of micromanagement in many ways, and I think in this particular case we find ourselves bound by something that almost everyone agrees is not very productive.

Mr. FLAKE. Thank you, Mr. Chairman.

Chairman HYDE. Thank you.

The gentlelady from Virginia, Ms. Davis.

Ms. DAVIS. Thank you, Mr. Chairman.

Dr. Cupitt, I understand your position with respect to the Export Administration Act and with that in mind what explicit security concerns do you believe we should take into consideration when addressing EAA reauthorization?

Mr. CUPITT. Well, I think there is actually many, I get to be an academic when I think of that kind of question. I think there is—for me, I have helped work on several of the working papers or studies from a multilateral standpoint, so maybe I could address that first. And I think one of the most important things from a national security perspective is a very thorough review of why items are on the list and make that review available to many of our allies and partners.

Surprisingly, after decades of cooperation, I find in many international meetings or discussions with our foreign counterparts that they do not know why certain items are on the list. They know in a broad sense that, oh, it is a nuclear related item, but not specifically why.

And that makes it very difficult when they go back to their own country from, let us say, some international meeting and they try to convince their own leadership, convince their own industry that there is an important reason to do this and not just take it on the word of the United States.

Ms. DAVIS. Would that be contained in Senate Bill 149?

Mr. CUPITT. Well, I think there is—if I recall correctly, in the bill there is a provision to go through and review and scrub the list, but actually I have not seen the latest version, so I am not entirely sure on that. But that would be one of the most important things from a multilateral standpoint.

I think the other is in order to encourage, as many people have said, greater coordination and cooperation, we really need to give the Administration the tools to provide more incentives to cooperate. For instance, even simple things, providing a good computer system that will allow secure exchanges of information between members of some of the arrangements. At least some members have opposed advances in this direction because they want to know who is going to pay for it. Well, we want to lead, that is a way we can lead. We can take some steps like that.

So I think those are some examples, that we can create some fairly straightforward economic incentives to help some of the world help the more recalcitrant members to participate. To some extent, it may be difficult for us to do much about Russian views given the current state of the economy, but even there, when you approach entities that, for instance, that we have listed or sanctioned and ask them how did that happen, what are they doing, they are making the effort to change. They often want to have this information, what do we need to do, what do we do now. And they want to know. Frequently they cannot get that because we are not in a position to exchange that information with them. So I think there are a variety of things from a multilateral approach that we can do that will enhance our security.

Ms. DAVIS. Thank you.

Mr. Hoydysh, in a letter to Senator Levin from Secretary of Defense Cohen, he stated his support for focusing the Export Administration Act more toward controlling software applications.

Can you expand on this and indicate why you may or may not think we will have greater success in controlling software exports than we have controlling hardware and chip exports?

Mr. HOYDYSH. Yes. As I understand it, Secretary Cohen was referring to the need to do a better job of controlling proprietary Defense Department software, which is either classified or should be classified. I do not believe he was talking about commercial software which is readily available on the market and would be even more difficult to control than hardware. But there is a need, and it appears that some of the events at Los Alamos have demonstrated, to do some research in how software can be protected. For example, can software be written in such a way or encrypted in such a way that it will only run on specific machines so that even if it is stolen or transferred somehow to the wrong parties that software would not be useful to them. I think that is the kind of thing that the secretary was talking about, including heightening the awareness of people within the Defense Department and defense contractors who utilize the software, that this is where the real knowledge is, this is where the real crown jewels are, not in the hardware that just cranks numbers, but it is in the knowledge and in the databases and in the software algorithms. Those are the things that have to be protected.

Ms. DAVIS. Thank you, Mr. Chairman.

Mr. GILMAN [presiding]. Thank you, Ms. Davis.

Just a few questions, gentlemen, and we will let you be on your way. Does the Senate bill give sufficient authority to the President to restrict the export of items that could contribute to the military potential of countries to the detriment of our nation and its allies and that might lead to the proliferation of weapons of mass destruction?

Mr. HOYDYSH. As I understand it, Mr. Chairman, the President has authority to carve out and to exempt any product from the foreign availability or the mass market provisions so that it never even gets into the queue so if there is in fact something that is of concern that maybe is a mass market product that poses such a risk or would be contrary to the security interests of the United States, the President could actually remove that.

So based on that and the override provisions in the foreign availability and the mass markets, I guess it would be my opinion that the President has adequate authority to protect the national security.

Mr. GILMAN. Thank you, Mr. Hoydysh.

Dr. Freedenberg?

Mr. FREEDENBERG. Yes. I ran this program for 4 years and I have observed it for 20 years. We have had about ten foreign availability findings over 20 years or one every other year. This is not something that is going to suddenly gut the list. It is not something that is likely to have a profound effect, but it does force the Administration to think about why it has a certain product on the list. It is more of a challenge to the Administration to review its own justifications.

I do not see it as—I think it is important to have the right principles written into that law—but I do not see it as having a deliterious effect. The fears that Senator Thompson and some of the others have, I think, are very unfounded.

At the very end, of course, when the President has found that there is a national security reason for not taking something off the list, who is going to challenge the President that there is not a national security purpose or reason for doing that?

There is no way that any independent individual could do that, so the President has absolute control over it and absolute discretion, so I really see it as a non-issue.

Mr. GILMAN. Thank you, Dr. Freedenberg.

Dr. Cupitt?

Mr. CUPITT. Well, I agree with the other members of the panel on this particular issue and I would say that this goes to another area where we often find ourselves in a data-poor environment.

As Dr. Freedenberg said, we have had ten foreign availability determinations, more or less, so that they are not happening very often in the past and I think this might be one area where, as I understand the Senate bill does establish an Office of Technology Evaluation that would do more in terms of providing concrete information one way or the other on foreign availability. And I think that might be advantageous, you know, from a national security standpoint, to have a clearer understanding of the evidence.

Mr. GILMAN. Thank you very much, gentlemen.

A further question. Criticism has been made that too many of our export control resources are devoted to licensing relatively benign transactions and diverting resources away from more important and more dangerous transactions. Is that a fair criticism?

Mr. HOYDYSH. Mr. Chairman, I think that is a fair criticism. Again, I think it was pointed out, maybe it was Senator Gramm that said that over 94, 96, whatever the percentage is of licenses are routinely approved. It probably indicates that the bar has been set too low and that it ought to be raised.

What is really of issue in many of these transactions is not the technology itself, but the end user. If a better job is done of identifying which end users U.S. industries should not sell to or trade with, then we could probably eliminate the need for having performance based licensing and simply concentrate looking for those end users that are of concern and making sure that industry knows who they should not deal with.

Mr. GILMAN. Thank you.

Dr. Cupitt?

Mr. CUPITT. I would agree, particularly on the end user problem. The difficulty is getting the intelligence agencies to share that information. The industry has been calling for this for as long as I can remember and we have made absolutely no progress in the area. It would seem that if there were a mandate to try to develop some kind of a computer system, some sort of a counselling system, some sort of system, where industry can be told who the bad guys are out there—I tried to make improvements when I was at Commerce, we got secure computers there, we had much more cooperation with the intelligence agencies. This can be taken much further.

The problem is that the intelligence agencies tend to be what I call anal retentive. They gather the information but they do not want to let it go and so you just cannot—it does not have any value. It has no value for the exporter. And that certainly is something that could be looked at in your legislation.

Mr. GILMAN. Thank you.

Dr. Cupitt?

Mr. CUPITT. Let me address that end user question because this addresses the previous question as well. One of the things, we do not share intelligence information very well with our allies, which makes it, again, difficult to convince them that these are appropriate cases. When you get one word in the intelligence comments on an end user or one line in the intelligence comments on an end user, that is probably not sufficient to make a convincing argument.

So it is not just that we do not share it with U.S. industries, we do not really share it with our allies, so I think that is one area where improving the intelligence sharing mechanisms would go a long way to enhance our ability to negotiate and coordinate our policies with our allies.

It would also, let me point out, improve, I think, how we target our enforcement resources. We do not have a lot of enforcement resources in Customs and in the Department of Commerce. To be able to target them more effectively by making sure that the industry is more compliant because it knows which end users are the right ones and the wrong ones will, I think, eliminate a lot of these

cases. Currently you see many, many times the enforcement agencies are focusing on what are largely recordkeeping issues and not concrete cases involving weapons of mass destruction proliferation. So in that area, I think there could be substantial improvement.

Mr. GILMAN. One of the concerns of our allies is that we are preventing them from having some end use opportunities. Is there any way we can reassure them that we are not trying to take advantage of them?

Mr. FREEDENBERG. You mean the idea that we are using export controls for commercial advantage?

Mr. GILMAN. Yes.

Mr. FREEDENBERG. The short answer, which I have tried to say in my testimony and which I think Mr. Hoydysh did as well, is that if there is anybody who is being shot in the foot it is us and it is not just remarkable we do it, but that we keep reloading and do it again and again and again. But the allies keep thinking that somehow we must have some ulterior motive. I think what we were talking about, better and better sharing of intelligence, would probably assuage a lot of those suspicions.

We are very, very—you would think we would be much more cooperative with our allies and in my experience is in terms of giving information about why we are really trying to shut something off or what we are trying to achieve——

Mr. GILMAN. Better communications.

Mr. FREEDENBERG. Yes.

Mr. HOYDYSH. Mr. Chairman, export controls have never been a competitive advantage for American industry in the past 50 years. I cannot think of a single instance when that has actually been true.

Mr. FREEDENBERG. In fact, I could tell you that Vice President Cheney could tell you that a lot of the business in the oil equipment industry has been lost to competitors that were created through export controls, not just that—there were not any competitors until we unilaterally controlled our own oil equipment industry. That is why he takes it as a very high priority for himself.

Mr. GILMAN. Well, do any of you gentlemen have any closing statement you would like to leave with our Committee before we wind up?

Mr. Hoydysh?

Mr. HOYDYSH. No, thank you.

Mr. GILMAN. Dr. Freedenberg?

Mr. FREEDENBERG. No, thank you.

Chairman GILMAN. Dr. Cupitt?

Mr. CUPITT. No, thank you.

Mr. GILMAN. Well, I want to thank you gentlemen for appearing before our Committee today. We greatly appreciate the effort you have made to study and then advise Congress about the Export Administration Act and we will be there to support efforts and to encourage action. We thank you again for your public service.

The Committee stands adjourned.

[Whereupon, at 4:30 p.m., the Committee was adjourned.]