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THE ADEQUACY OF COMMERCE DEPARTMENT SATELLITE EXPORT CONTROLS

HEARINGS

BEFORE THE

SUBCOMMITTEE ON INTERNATIONAL SECURITY, PROLIFERATION, AND FEDERAL SERVICES

OF THE

COMMITTEE ON GOVERNMENTAL AFFAIRS UNITED STATES SENATE

ONE HUNDRED FIFTH CONGRESS

SECOND SESSION

JUNE 18 AND JULY 8, 1998

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THE ADEQUACY OF COMMERCE DEPARTMENT SATELLITE EXPORT CONTROLS

THURSDAY, JUNE 18, 1998

U.S. SENATE,
SUBCOMMITTEE ON INTERNATIONAL SECURITY,
PROLIFERATION, AND FEDERAL SERVICES,
OF THE COMMITTEE ON GOVERNMENTAL AFFAIRS,
Washington, DC.

The Subcommittee met, pursuant to notice, at 2 p.m. in room SD–342, Senate Dirksen Building, Hon. Thad Cochran, Chairman of the Subcommittee, presiding.

Present: Senators Cochran, Collins, Stevens, Levin, Cleland, and Thompson [ex officio].

OPENING STATEMENT OF SENATOR COCHRAN

Senator COCHRAN. Please come to order.

We welcome you to this hearing of the Governmental Affairs Subcommittee on International Security, Proliferation, and Federal Services. The subject of today's hearing is "The Adequacy of Commerce Department Satellite Export Controls."

Just over 2 months ago the *New York Times* reported that two of America's leading commercial satellite manufacturers—Loral and Hughes—may have provided China with technical information capable of enhancing Chinese space launch vehicles.

Last month at our Subcommittee's hearing, the Central Intelligence Agency provided us with a chart showing the applicability of space launch vehicle technology to intercontinental ballistic missiles. Except for the warhead, there is little difference between a space launch vehicle and an intercontinental ballistic missile.

Therefore, any such assistance given to China could not only help them develop more capable space launch vehicles, but also could improve the capabilities of their ICBMs.

In addition, there is the concern that China may transfer such information to other countries, such as Iran or Libya.

Our export control system should prevent technology transfers to China that endanger American security. We have no defense against missile attack. Helping equip other nations directly or indirectly with the means to put our Nation's citizens at risk from ballistic missile attack must be stopped.

Today's witnesses are familiar with the policies and procedures established by the Clinton administration for reviewing and permitting satellite and missile technology exports to China.

The administration witnesses who are here with us today are: Hon. William Reinsch, Commerce Department Under Secretary for Export Administration; Hon. John Holum, State Department Acting Under Secretary for Arms Control and International Security Affairs; and Hon. Jan Lodal, Defense Department Principal Deputy Under Secretary for Policy.

We thank you for your attendance and your assistance. We also appreciate having copies of statements which you have provided to our Subcommittee, and we will print them in the record in full as if read in full.

I am going to start the hearing by first calling on Mr. Holum, who—I checked to be sure—is the senior member of the administration panel, and he will be followed by Mr. Reinsch, and then Mr. Lodal.

Before hearing from the witnesses, I am happy to yield to my distinguished colleague and friend from Maine, Senator Collins.

OPENING STATEMENT OF SENATOR COLLINS

Senator COLLINS. Thank you very much, Mr. Chairman. I want to commend you for once again taking the lead in exploring this important and timely topic. I know that your concern about proliferation issues is a longstanding one, and I appreciate your leadership in this area.

The system of export controls that governs commercial satellite launches is complex, and has changed considerably over time. Nevertheless, it is vital that we in Congress understand these complexities, because a great deal is at stake.

Export controls are one of the difficult balancing acts that public policymakers in a free country must continually undertake. They require us, Mr. Chairman, to weigh economic benefits against national security costs in a delicate, ongoing effort to ensure that our eagerness to profit from trade does not betray our own best interests by helping actual or potential adversaries acquire means to harm us that they would not otherwise possess.

We are here today, in part, out of concern that the Clinton administration has gotten this balance wrong. In studying this issue over the past few weeks, I have developed serious concerns about the adequacy of export controls governing satellite technology now that jurisdiction for all such controls had been transferred to the Department of Commerce from the Department of State. Until relatively recently, most commercial satellite launch licenses—and all of the most militarily sensitive ones—were handled by the Department of State under the rigorous series of controls applied to the items on the U.S. Munitions List. Due to the efforts of the late Commerce Department Secretary Ron Brown and the determination of President Clinton, however, satellite launch controls had been transferred to the Commerce Department in 1996, and they are now handled under a system built around the Commerce Control List. It is the consequence of this shift that we will be examining today.

For my part, Mr. Chairman, I have several concerns about this shift in jurisdiction, concerns that I am hopeful that perhaps our witnesses today can alleviate.

First, in my judgment, the shift to the Commerce Controls means that satellite technologies are not subject to the so-called "Category 2" sanctions that may be applied to countries violating the Missile Technology Control Regime by exporting missile components. To be sure, if a country such as China is discovered to be providing other countries with whole missiles, "Category 1" sanctions would apply even to Commerce Control List items. If it is discovered to be a proliferator of missile components, however, China can still purchase items on the Commerce Control List. Moving satellites to the Commerce Control List, in other words, permits U.S. companies to sell "dual-use" satellites to ballistic missile proliferators, as long as these proliferators have the foresight to export their technology in merely component form. This, it seems to me, is neither rational nor conducive to national security.

Second, I am concerned that the Clinton administration has adopted the view that items that would be subject to munitions list controls if sold overseas in their own right are not subject to such controls when built into larger hardware packages in communications satellites. I am no engineer, but surely something that is dangerous to sell separately becomes no less dangerous when we sell it along with other items. Here too, the current control regime seems likely to facilitate sales of sensitive items to problem countries such as China.

Third, I am concerned that the shift of satellite jurisdiction to the Department of Commerce has removed Congress' role in overseeing such technology transfers. For munitions list items, as I understand it, the export-licensing process gives Congress a 30-day period in which to decide to object to any particular transfer. This is not true, however, for Commerce Control List items. The shift of satellite jurisdiction from the State Department to the Commerce Department, therefore, has had the effect of removing legislators' opportunity to raise questions about objectionable transfers.

Finally, I am concerned that the transfer of jurisdiction has meant that satellite launches are accompanied by fewer technology transfer controls. When Chinese satellite launches were regulated by the State Department, every launch was required to have a Technical Assistance Agreement, a Technology Transfer Control Plan, and to be overseen—throughout the entire process of a U.S. company's dealings with a foreign customer—by Defense Management Monitors. This, it now appears, is not necessarily the case with launches undertaken under Department of Commerce supervision; it is not clear that these launches are required to have all three of these important safeguards. Some launches have had these safeguards, but this usually appears to have been because the companies, rather than the government, requested them.

I understand that Commerce Department officials have indicated to Subcommittee staff and to my staff that they are "moving toward" requiring such safeguards. Such movement would, of course, be welcome. This admission, however, underscores my point: It seems to be much easier to transfer sensitive "dual-use" technology today than it was before President Clinton moved all satellite jurisdiction to the Department of Commerce.

If I understand these complicated laws correctly, therefore, these differences between the Munitions List and Commerce Control List

systems are very significant ones. Taken together, they make the present Commerce-controlled system a much more permissive and potentially porous one than the State Department system that previously governed commercial communications satellite technology. I have heard administration officials insist that the present system safeguards national security interests just as well as the previous one, but I am having trouble seeing how that could possibly be the case.

Accordingly, I very much look forward to our discussions today. Our distinguished witnesses are among the most senior administration officials in the technology transfer control business, and I am pleased that they have been able to join us in helping shed light upon the complexities of this system.

This issue is of major concern to me. I look forward to hearing our distinguished panel of witnesses as we shed light upon this complex system.

Thank you, Mr. Chairman.

Senator COCHRAN. Thank you, Senator Collins, for your excellent and thoughtful statement.

Senator Thompson, the Chairman of the full Committee?

OPENING STATEMENT OF SENATOR THOMPSON

Senator THOMPSON. Thank you very much, Mr. Chairman. I appreciate your having these hearings here today. I think this is exactly the way that we should go about addressing this extremely important problem, and it's something that probably we all should have done much earlier.

I think that, as usual, it takes a particular instance—oftentimes in a political context—in order to draw our attention to a particular situation and cause us to look at the broader policy implications of what we're doing. It is really high time that we do examine our export policy with regard to particular materials, dual-use items in particular, in the context of the world in which we live today.

I think that it is very useful to consider the context as we go along. Clearly, in an earlier period our export policy reflected what was going on in the world in terms of the Cold War. Clearly at one time not too long ago, the Soviet Union was an adversary of both the United States and China. But that, for example, is somewhat different from our relationship with China today. Our export policy, I am sure, in some way reflected that reality. Then we had a period of time when the Cold War was over, and I think everyone breathed a sigh of relief, took a deep breath, wanted to reach out and have new relationships and additional trade with countries such as Russia and China in the new world that we were happily living in at that time.

Now, we come to a situation where we discover that some countries, such as China and Russia, are still major proliferators. In China's case, according to our own military people, they are the world's greatest proliferator of weapons of mass destruction around the world. Just as recently as yesterday's newspaper we see that China apparently continues to distribute missile technology and biological and chemical weapon technology to countries that are clearly hostile to us.

So my point is that, again, our trade policy has to be considered—I should say, our export policy has to be considered—within the context of the real world that we live in today. That's not necessarily to be critical of anybody at any particular time, and hopefully we won't all get our positions staked out and our backs up in such a way that we can't take an objective look at what our policy ought to be in today's realities. If we have some misconceptions about it, hopefully we will be able to acknowledge those; but if the administration needs to look at things differently or make some improvements in the way we do business and in the way this thing is set up, then we need the administration to do that, too.

I think it is clear that back in 1992 there was a decision made by the Bush administration, after an interagency review, that certain items that had been on the munitions list needed to go over to the Commerce Department and the Commerce Control List. Then in the Clinton administration a similar review took place by a similar interagency group that reached the same conclusion that the Bush interagency group did; that is that the ones that had been sent to the Commerce Department should remain there, but the ones that remained on the munitions list because of their military sensitivity should remain on the munitions list. This was signed off by the Secretary of State. The President chose not to follow that recommendation, but instead to follow the recommendation of Ron Brown, so all commercial satellite jurisdiction went to the Commerce Department.

So the question becomes—and the pros and cons of whether or not it is a wise policy are separate and apart from this first question—but the first question is whether or not it is easier to get a dual-use item approved, particularly a commercial satellite export license, at the Commerce Department than it was when the jurisdiction was at the State Department? From what I've seen, it's beyond dispute that it's easier, whether you look at the statutes under which they're operating and the obligations that they have or any of the other things that Senator Collins just pointed out. I think we have to examine whether or not that should be changed and in what ways it could be strengthened. As I say, in the real world that we're living, countries to which we are sending some of these materials are in turn major, major purveyors and proliferators of weapons of mass destruction and missile, biological, and chemical weaponry.

So, Mr. Chairman, I think that's the issue today. It is a profound and important one, and this is an important part of the process that I think we have to go through to get to the answers to these questions.

Thank you.

Senator COCHRAN. Thank you very much, Senator, for your excellent statement and your support of the efforts that we have made in this Subcommittee to monitor and look into these issues.

Senator Cleland, we welcome you to the Subcommittee. We have made opening statements, and you are recognized for that purpose.

OPENING STATEMENT OF SENATOR CLELAND

Senator CLELAND. Well, thank you very much, Mr. Chairman. Thank you all for being here with us today.

I think it is a matter of national importance for us to find out exactly who is in the driver's seat in terms of when we ship dual technology, or potential dual technology, abroad, as to the hands that it could fall into. I think this is certainly true in terms of the satellite launching capability of the Chinese.

I look forward to any comments from our panelists in terms of who you think ought to be, ultimately, the governing or driving authority here. It does seem to me that national security interests should predominate; how that is structured is another question. But we leave that to our panelists to respond to.

Thank you very much, Mr. Chairman.

Senator COCHRAN. Thank you very much, Senator.

Secretary Holum, we appreciate your attendance and furnishing us a copy of your statement. We encourage you to make whatever summary comments you think are appropriate for the benefit of the Committee. You may proceed.

TESTIMONY OF HON. JOHN D. HOLUM,[1] ACTING UNDER SECRETARY FOR ARMS CONTROL AND INTERNATIONAL SECURITY AFFAIRS, U.S. DEPARTMENT OF STATE

Mr. HOLUM. Thank you, Mr. Chairman. Mr. Chairman and Members of the Subcommittee, it is a pleasure to be back before this Subcommittee. I have appeared here several times in the past.

I would like to begin with several fundamental points that I think would help place this issue in context. The first is that nonproliferation of weapons of mass destruction is a cornerstone of U.S. foreign and national security policy. Trends, such as Iran's progress toward a medium-range missile capability, and, of course, the recent tests in South Asia, make clear that these are not theoretical concerns but looming threats to our security and our interests. There's no disagreement between the Executive Branch and the Congress on the vital importance of these issues.

The second point—and this alludes to something that Senator Thompson observed—is that China is indispensable to any solution to the nonproliferation problem. China is a nuclear weapon state. It has in its hands—on a home-grown basis, leaving aside any transfers—the capabilities to supply technology and components of weapons of mass destruction to other countries of proliferation concern. So China's approach can make the crucial difference between success and failure on nonproliferation.

Now, unquestionably, China has been part of the nonproliferation problem. Its relationship with Pakistan on nuclear weapons has been a major concern since the 1970's. We also take sharp issue with its chemical and missile cooperation with Iran. In 1991, the Bush administration sanctioned two Chinese entities, and in 1993 the Clinton administration sanctioned eleven Chinese entities, for transferring missile equipment and technology to Pakistan.

At the same time, my third point is that although we still have serious concerns, China's approach to nonproliferation has changed markedly in recent years. It has made significant progress in its adherence to global standard—the Nuclear Nonproliferation Trea-

[1] The prepared statement of Mr. Holum appears in the Appendix on page 81.

ty, the Chemical Weapons Convention, and the Comprehensive Test Ban Treaty. We have also made progress on specific cases.

In 1994, China committed not to export MTCR-class ground-to-ground missiles to any country. China's exports of missile-related components and technology reflect a narrower understanding of the MTCR guidelines than we have, but we have no evidence that China has acted inconsistently with its basic 1994 commitment. Similarly, we continue to assess that China continues to abide by its 1996 agreement to end assistance to unsafeguarded nuclear facilities in Pakistan or anywhere else. China is taking steps to improve its export controls, and last year—this is very important—China agreed to conclude its nuclear cooperation, even peaceful nuclear cooperation, with Iran, and also to terminate the export of cruise missiles to that country.

So the picture is mixed. Progress is substantial, but not enough, especially given the stakes. Therefore, my fourth fundamental point is that we have to continue to use all the tools at our disposal to make China part of the nonproliferation solution. That includes intensive diplomacy, including at the Presidential level; day-to-day front-line work of nonproliferation, with experts sifting through intelligence and making demarches about specific transfers; technical collaboration on export controls; sanctions—and I think sanctions have had a significant impact on China's behavior; and also positive incentives. Unquestionably, China's recent far-reaching steps on nuclear nonproliferation were motivated, at least in part, by the prospect of civil nuclear cooperation with the United States.

Let me emphasize that there are clear limits to incentives. Of particular relevance to the subject of this hearing, neither this administration nor its predecessors have been willing to sell China arms, or to transfer sensitive technologies, that could contribute to China's own WMD or missile programs.

One aspect of our efforts to persuade China to adopt a more responsible nonproliferation policy, particularly regarding missile transfers, has been the basic policy of several administrations, beginning in 1988, to allow U.S.-made satellites and foreign satellites with significant U.S. components and technology to be launched on Chinese rockets. But again, this incentive is clearly limited to exclude transfer of sensitive missile or satellite technology when satellites are licensed for launch. We have a very strict policy, secured in a bilateral technology safeguards agreement between the United States and China, and also embodied in license conditions, to prevent the transfer of sensitive missile technology to China that could assist its space launch vehicle program or its missile program.

We do not believe that the commercial space launch activities that have been authorized by licenses and monitored under these procedures have benefitted China's missile or military satellite capabilities.

Against this general background, let me give you the State Department's perspective on two events that have been the subject of broad reporting and commentary. First is the transfer of jurisdiction.

One unfinished piece of business facing the Clinton administration when it took office in 1993 was a set of amendments to the International Traffic in Arms Regulations that had been prepared

at the end of the Bush administration. The ITAR, administered by the State Department, implements the President's authorities under Section 38 of the Arms Export Control Act. The ITAR contains the U.S. Munitions List, which specifies articles and services which require a State Department license before they may be exported or, in some cases, even discussed with a foreign person.

In 1990, the Congress had inserted specific provisions in the reauthorization of the Export Administration Act calling for the removal of certain items from the U.S. Munitions List. President Bush vetoed that bill on other grounds, but he said in his veto message that he would nonetheless act to remove those dual-use items from the munitions list, except for those warranting continued controls on the munitions list. That, in turn, led to an interagency study, and then draft amendments. However, the conclusion of that study generally coincided with the election of President Clinton, so the State Department deferred implementation so that the incoming administration could have its own review.

In July of 1993, following further interagency study, the Clinton administration approved the Bush administration's ITAR amendments without change. As a result, many commercial communications satellites were removed from the U.S. Munitions List and placed under the jurisdiction of the Department of Commerce. Commercial satellites remaining on the munitions list were outlined in Category XV of the list, and cover nine specific performance characteristics, such as antennae capabilities, encryption devices, and propulsion systems. Over the next 2 years, those characteristics continued to define which communications satellites required a U.S. Munitions License and which required approval by the Department of Commerce.

The U.S. aerospace industry continued to press for treatment comparable with other communications trade, such as fiber optics and telephone switching equipment, which were under the Commerce Department's jurisdiction. They pointed out that characteristics that had once been unique to military satellites were now routinely employed on commercial satellites, and they argued that the 30-year U.S. lead in building and exporting commercial satellites was under challenge from Japan, Europe, and Canada, who were promoting the view that American manufacturers were unreliable because of our restrictive export policies.

Secretary Christopher at that time agreed on the need to ensure that our munitions list controls were up to date and justified, and requested an interagency study on whether the ITAR appropriately identified those communications satellites having significant military or intelligence capability. That was organized by the State Department and included the Defense Department, the intelligence community, the Arms Control and Disarmament Agency, the Department of Commerce, NASA, and other interested agencies.

In September 1995, Secretary Christopher received and approved recommendations from that group, narrowing—but not eliminating—U.S. Munitions List controls. Those recommendations were supported by the Defense Department and the Intelligence Community. The Commerce Department supported removal of all commercial communications satellites from the munitions list, and exercised its right to seek Presidential review. That led, in turn, to a

further interagency review under the aegis of the National Security Council. As distinct from the earlier, split recommendation, this review produced a common recommendation from the Departments of State, Commerce, Defense, and the Intelligence Community, with two important parts.

First, commercial communications satellites would be controlled by the Commerce Department, even if they had embedded in them individual munitions list components or technologies. In all other cases, munitions list technologies or components themselves would continue to be controlled on the munitions list. However, the further shift in control was accompanied by new control procedures and regulations to strengthen safeguards. The State Department and the Defense Department were given the right to review all Commerce Department export license applications. A new foreign policy and national security control was established in Commerce's Export Administration Regulations whereby the State Department and Department of Defense could recommend denial of a satellite export to any destination on the basis of national security or foreign policy interests. Commercial communications satellites were also made exempt from the foreign availability requirements of the Export Administration Act.

As Secretary Christopher noted in a recent letter published in the *Los Angeles Times*, these new features made it possible for the State Department to change its position and support the 1996 recommendation to the President.

The bottom-line question, of course, is whether this change has resulted in a degradation of protection for U.S. national security. It was Secretary Christopher's conclusion, and remains the judgment of the Department of State, that the changes made in the Commerce Department export licensing system in 1996 were sufficient to deal with the national security sensitivities associated with foreign launches of communications satellites. They provide a degree of protection that approximates the strict controls of the International Traffic in Arms Regulations. Therefore, the State Department was provided with reasonable assurance that U.S. national security would not be adversely affected by the change.

Finally, let me report just briefly that the waiver of Tiananmen sanctions earlier this year for Loral's Chinasat–8 project was handled in the normal manner, in accordance with the procedures used in previous requests.

This dealt, as you know, with the proposed export under a Commerce Department license of a commercial communications satellite to the China National Postal and Telecommunications Appliances Corporation for launch from China. The satellite, once launched, will provide commercial voice, video and data traffic in China. After the technical assistance agreement had been reviewed and approved by all the relevant agencies, and subject to the normal limits and conditions, the State Department recommended to the President that he waive Tiananmen sanctions in accordance with established procedures.

Now, when we recommended that waiver, senior administration decisionmakers were aware that Loral was under criminal investigation for alleged violations of the Arms Export Control Act. But the State Department's longstanding policy has been that, provided

the activity proposed for waiver is consistent with U.S. national security and foreign policy, we do not deny export privileges to firms that are under investigation but have not been indicted. However, if a U.S. firm is indicted, the Department does adopt a denial policy on the basis of the indictment and does not wait for a conviction.

It is against this backdrop that the United States conducts commercial space launch cooperation with China. We strive to accommodate U.S. commercial and economic interests, including promoting U.S. satellite exports, but within our paramount nonproliferation and national security objectives.

The United States has engaged China at the highest levels regarding its nonproliferation policies and practices. We continually encourage China to strengthen its export controls and bring its nonproliferation policies more in line with international norms. The prospect of launching U.S. satellites, under technology safeguards, is an important inducement to a positive evolution in Chinese policy which, in turn, as I said at the outset, is indispensable to the containment of proliferation in a dangerous world.

Thank you, Mr. Chairman.

Senator COCHRAN. Thank you, Secretary Holum, for your statement.

We are now pleased to hear from Secretary William Reinsch, Under Secretary for Export Administration of the U.S. Department of Commerce.

You may proceed.

TESTIMONY OF HON. WILLIAM REINSCH,[1] UNDER SECRETARY FOR EXPORT ADMINISTRATION, U.S. DEPARTMENT OF COMMERCE

Mr. REINSCH. Thank you, Mr. Chairman. Like Mr. Holum, I am pleased to be back here—I think; we'll see. [Laughter.]

I want to thank you for the opportunity to be here.

I believe this administration's policy on the export of commercial communications satellites to China both protects our national security and facilitates our economic well-being. In allowing China to launch commercial communications satellites and transferring licensing jurisdiction for commercial communications satellites to the Commerce Department, this administration has continued and enhanced the policy of the Reagan and Bush administrations and has been consistent with Congress' expressed intent.

Our current policy continues the decision by previous administrations to allow China to launch U.S.-built satellites subject to bilateral agreements on price, number of launches, and technology safeguards. Our view, like that of Presidents Reagan and Bush, is that under the appropriate safeguards these launches need not pose a risk to national security. In a moment I will describe these safeguards as they apply to the Commerce Department licensed commercial communications satellites, and also comment on some of the points that Senator Collins made in her opening statement.

Commerce Department licensing of commercial communications satellites, as Secretary Holum pointed out, grew out of the 1990 decision by President Bush to veto a revised EAA which would,

[1] The prepared statement of Mr. Reinsch appears in the Appendix on page 90.

among other things, have moved all commercial communications satellites to the Commerce Department jurisdiction. President Bush's veto was not related to the satellite issue, but in his veto message he directed that the State Department review its control list to determine if a range of items, including communications satellites, could be moved to the Commerce Department jurisdiction in light of the strong interest expressed by members of both parties in the jurisdictional issue, and because the United States was the only country in the world to control communications satellites as munitions items.

It is also worth noting that in 1990, both Houses of Congress—and in 1992, the Senate—passed legislation that would have transferred jurisdiction over commercial communications satellites to the Commerce Department, and in 1994, committees in the House introduced, and in the Senate reported, bills with this same provision. These actions are in addition to the letters the administration received from a number of Members of Congress, urging either jurisdiction transfer or the export of satellites to China. One letter we received, I would note for this Subcommittee, is a letter in 1990 to President Bush signed by 79 Senators, including yourself, Mr. Chairman, urging President Bush not to veto this bill.

Now, Under Secretary Holum has described in some detail the circumstances leading up to and surrounding the transfer of jurisdiction, so I will skip those parts of my testimony in the interest of time.

I do want to make one point that responds to something Senator Thompson said in his opening comments, and that is simply to make clear for the record that every license approved by the Commerce Department for commercial communications satellites, before and after the 1996 transfer of jurisdiction, had the approval of the State Department and the Defense Department. In addition, because of the changes that President Clinton put into the licensing process, those licenses that we have approved for commercial communications satellites after the 1996 transfer have also had the approval of the Arms Control and Disarmament Agency. The agencies in question, particularly the three that are before you today, have consistently been in consensus on the specific license applications that have come before us.

Now, let me speak directly to Department of Commerce safeguards.

Department of Commerce licenses for communications satellites contain numerous conditions and provisos, developed in conjunction with the Departments of Defense and State. Under Department of Commerce licenses, exporters are obliged to comply with the terms of the Satellite Technology Safeguards Agreement between the United States and China. That requires them, among other things, to do the following:

- Develop a Technology Transfer Control Plan which identifies the level and extent of technical data to be released, and which also includes plans for securing the satellite during its transportation to the launch site;
- Have all technical data under the license reviewed by the Defense Department prior to its release to the launch service provider, and have a Defense Department monitor present at

technical meetings and launch activities with the Chinese launch service provider;

- Transport the satellite in a sealed container, allowing no access to equipment or technical data, and with U.S. monitors to accompany the satellite if it is transported on a non-U.S. aircraft;
- Have a separate cryptographic equipment safeguard plan for communications security equipment; and
- Limit technology which can be released under the Department of Commerce license to only form, fit, and function data used to mate the satellite to the rocket, and require the exporter, in the event of a launch failure, to obtain a license from the State Department before releasing any additional technical data.

In light of these safeguards, I believe the existing Department of Commerce licensing system fully protects our national security and foreign policy concerns. There have been no allegations regarding export control violations of Department of Commerce satellite licenses since the 1996 transfer of jurisdiction.

Now, I understand there have been questions raised about an analysis conducted of the 1995 APSTAR II launch failure. After that failure, the company involved conducted an analysis without the participation of the Chinese launch service provider. The analysis was written in order to satisfy insurance requirements. The analysis was reviewed by the Department of Commerce, which determined that it contained only information already authorized for export under the original Department of Commerce license issued in February, 1994. The unclassified report was provided first to a consortium of western insurance companies, and later to the Chinese launch service provider.

Now, let me turn to some of the points that Senator Collins made and correct some misunderstandings which have arisen, originally in a report undertaken by the General Accounting Office.

GAO asserted that there are five differences in the treatment of satellite licenses at the Commerce and State Departments. A closer look, I believe, will show that these differences do not affect national security. GAO reported the following:

- First, that Congressional notification of individual licenses is not required in the Commerce Department system. The Commerce Department regularly briefs the Hill, issues annual reports, provides licensing documentation, and answers inquiries upon request. We have provided briefings on satellite exports, and we briefed on the transfer of jurisdiction in 1996. We are not aware that the Congress has objected to any satellite export, and the message that the Congress has consistently sent—as I said before—is that it wants satellites controlled as dual-use items under the Export Administration Act, which does not generally provide for Congressional review of individual licenses. And I can go into reasons why that is so during questions and answers, if you would like.

Of course, in the case of satellites, there can be no exports to China without a Tiananmen Square waiver, which is notified to the Congress.

- The second difference relates to sanctions for missile proliferation not applying to Commerce license. Sanctions do apply to the Department of Commerce in cases of Category I violations, and the President generally has flexibility to include dual-use export sanctions in other cases if he so chooses, pursuant to other authority. Normally, however, it is correct that Category II missile sanctions apply only to munitions and dual-use items that are controlled under the Missile Technology Control Regime, the multilateral regime that addresses these matters. Commercial communications satellites fall into neither of those two categories. We believe the Congress clearly intended Category II sanctions to be less onerous than Category I sanctions, which do cover dual-use items.
- The third point is the alleged diminution of the Department of Defense's power to influence the decisionmaking process. We believe that DOD's authority is not diminished in this regard. The Commerce Department has denied licenses when the Department of Defense has raised national security concerns found credible by the reviewing agencies, but Executive Order 12981—which was the process change that allows every agency to see every one of our licenses, if they wish to do so—does not give the Department of Defense or any other agency a veto over a license, which would be contrary to legislative authorities and Congressional intent. It does, however, permit an agency, including the Defense Department, to prevent approval of any license, satellite or other, until the President has heard and decided on that agency's objections.
- Fourth, GAO asserted that technical information may not be as clearly controlled under the Commerce Department procedures. We believe that since the 1996 transfer, since the Commerce Department technology conditions are almost identical to those used at State, it is hard for us to understand the assertion that the level of technology has somehow changed. I would be happy to go into that in detail later on, if you wish.
- The last item is the assertion that additional controls placed on communications satellites transferred in 1996 do not apply to those transferred in the Bush administration. We believe this assertion misses the point. In practice, all satellite applications subject to Commerce Department license after the transfer are subject to the same safeguards, and the other agencies have the same review and escalation rights.

In closing let me also suggest that as a matter of policy, there are several reasons why allowing Chinese launches of U.S.-manufactured satellites—which I think is the real issue here—is in our interest.

First, this is a large and important industry that is growing rapidly. I want to make clear at the beginning that the licensing decisions that we make put national security first. This is an industry, however, where economic considerations, I believe, deserve to be at the table. U.S. industry revenues were $23.1 billion, a 15 percent

increase over the previous year. Employment in 1997 was over 100,000, a 10 percent increase from the previous year. The industry indicates that it has $1.7 billion in launch contracts on Chinese rockets, with 8,000 U.S. aerospace jobs directly supported by those contracts right now. They also indicate that over the next 5 years they have $8 billion worth of those contracts, and 16,000 jobs at stake, with respect to launch contracts for Chinese rockets.

With over 1,200 satellites expected to be launched over the next 10 years, it is clear that the U.S. industry will continue to need access to the full range of launch providers if it is to remain the world's leader. Not to be able to offer a competitive launch alternative puts our satellite manufacturers at a competitive disadvantage vis-a-vis their foreign competitors. Putting them in a clear leadership position, I think, is a status that we would all support. It is not only good for our economy, but I would argue that it is good for our military and for our national security as well. As the line between military and civilian technology becomes increasingly blurred, what remains clear is that a second-class commercial satellite industry means a second-class military satellite industry as well. The same companies make both products, and the same companies depend on exports for their health and for the revenues that will allow them to develop the next generation of products.

Second, some of these satellites bring telephone, television, and Internet services to the Chinese people. I believe such services are an integral part of any effort to bring democracy and freedom to China. History has shown that it was a successful example of the West—not only in military strength, but in standard of living and freedom of expression—that brought the Cold War to an end. Our goal should be to bring not only our products, but our ideas and our values to China, but we cannot do that if they do not have the technological tools to receive them.

International security since the end of the Cold War poses very real problems for the United States. These are complicated issues. We are in the midst of a serious debate as to whether we should seek to constructively engage those with whom we have disputes, or whether we should simply try to punish them through unilateral embargoes and sanctions. It may make us feel good to impose Cold War-style embargoes on these countries, even though they rarely work, but they do not help us achieve our objective of changing the other country's behavior, which is what I think we should focus on. Those who find it in their interest to exaggerate the threat of trade with China seem incapable of defining our relations with this emerging power in any terms but those of military conflict. However, we believe that treating China as a committed adversary is the quickest way to ensure that it becomes one, and we remain convinced that it is better to engage China frankly in dialogue, in trade, and in ideas than it is to seek to isolate them.

Thank you very much, Mr. Chairman.

Senator COCHRAN. Thank you, Secretary Reinsch.

Secretary Lodal, we welcome you and ask you to proceed.

TESTIMONY OF HON. JAN M. LODAL,[1] PRINCIPAL DEPUTY UNDER SECRETARY FOR POLICY, U.S. DEPARTMENT OF DEFENSE

Mr. LODAL. Thank you very much, Mr. Chairman.

In the interest of time and in the interest of retaining your interest, I am going to skip over and summarize a lot of my remarks because they do deal with the history that I think you heard set forth very clearly here, going back to 1988, the original decision to export satellites to China, and then in 1990, with the Congressional provisions, 1992 with the Bush administration decision, implemented the next year by the Clinton administration, and the 1996 changes that were made by the Clinton administration. What I would like to do is pick up at that point, the 1996 changes that were made when President Clinton decided to transfer additional jurisdiction for commercial communications satellites from the State Department to the Commerce Department.

DOD supported this transfer because the transfer did not involve certain sensitive technology associated with satellites and with launch vehicles, and because the transfer was accompanied by several changes in procedures that protect DOD's ability to ensure that the transfers are consistent with U.S. national security.

Let me once again summarize the system that is now in place.

Companies can export complete commercial communications satellites under a Commerce Department license, even if they contain one or more of the individual military technologies that define the State Department jurisdiction over communications satellites. However, those individual military technologies must get a separate State Department munitions license when they are not exported as part of the complete satellite.

The Commerce Department continues to control limited form, fit, and function technical data, but the State Department retains control over all launch vehicles and all technical data associated with the launch vehicles, or with the integration of satellite payloads in the launch vehicles, and with all data or manufacturing data for satellites, and technical assistance that might be provided by U.S. companies to Chinese launch service providers, including launch failure analyses.

In addition, several changes were made to strengthen the Commerce Department system and the interagency review process for dual-use licenses. In particular, license determinations are now subject to a majority vote of the reviewing agencies, even in the first instance. In the past it was necessary to appeal, if you will—or escalate—the process before you got into committees where the agencies, other than the Commerce Department, had a vote. But for these items, that's no longer true.

Licenses can be denied for broad national security reasons to any destination in the world, unlike the case for most dual-use items.

And communications satellites are not subject to formal foreign availability determinations under the Export Administration Act, unlike most dual-use items.

Communications licenses must include strong safeguards, including DOD monitoring and payment of DOD monitoring expenses by

[1] The prepared statement of Mr. Lodal appears in the Appendix on page 95.

the companies. This is a very key point. DOD currently reviews all communications satellites licenses to ensure that the proposed export would be consistent with U.S. national security interests, and these recommendations reflect inputs from relevant DOD components, such as the Air Force and the National Security Agency.

Our recommendations to approve a satellite export are conditional on strong safeguards, including a requirement that the satellite exporter prepare a technology control plan, which must be approved by DOD. The technology control plan has to include a detailed transportation plan for shipping the satellite, to ensure that only U.S. personnel have access to the satellite at all times, and a detailed physical and operating security plan, including procedures for the supervised mating of the satellite to the launch vehicle.

This is important because the satellite, as Senator Collins pointed out, can include imbedded technologies that we do consider to be sensitive military technologies; therefore, it is quite important that we make sure that this satellite never be taken apart or accessed by the Chinese—or anyone, for that matter—from the time it leaves the United States to the time that it is either on orbit or blown up, in those cases where there is a launch failure.

There is a requirement that technical data that any U.S. company wants to transfer to a Chinese launch provider is approved in advance by our Defense Technology Security Administration, and a requirement that a DOD monitor be present at technical meetings between the U.S. exporter and Chinese launch service personnel to ensure that no information is exchanged that would improve Chinese missile or satellite capabilities. This includes a requirement that DOD monitors be present at the launch site in China to oversee physical site security and launch operations.

So I want to emphasize that since 1996, monitoring by the U.S. Government is required in all launches of communications satellites, and this monitoring is provided by DOD, as I have described.

Monitoring by the U.S. Government was, in fact, required for all launches of satellites that contained any of the identified military technologies, or kick motors, or launch vehicle integration technical data, or any technical assistance, throughout the period that we have permitted satellites to be exported. In other words, any license that was issued by the State Department required monitoring.

Now, after implementation of the 1992 Bush administration decision purely commercial satellites, and before the 1996 revisions, there were three launches that were not monitored. These were launches of purely commercial satellites that were licensed by the Commerce Department. Monitoring had always been associated with the licenses issued by the State Department, and DOD license review procedures anticipated that there would be at least one State Department license required for the launch of even these commercial satellites that were now licensed by the Commerce Department. However, as it turned out, these launches did not require any State Department licenses. We are not aware of any transfer of technology from these unmonitored launches that contributed to China's missile or military satellite capabilities. Never-

theless, DOD did conclude that full monitoring would be a strong safeguard at relatively low cost to the companies, and that it should be applied to all license cases, even those that did not require Department of State licenses. This was agreed by all agencies and incorporated as a requirement in 1996, when jurisdiction was transferred to the Commerce Department for all commercial communications satellites, and the other improvements and changes that I described earlier were made at the same time.

Mr. Chairman, in September of 1988, President Reagan decided to permit the launch of U.S. commercial communications satellites by China. This decision was motivated by a desire to allow commercial relations with China to expand in a more normal manner. The Reagan administration understood the potential risks, that such a program could lead to the transfer of military-related technology to China, but also recognized that China had for many years had the basic technology necessary to develop and deploy effective ballistic missiles, including intercontinental missiles capable of hitting the United States.

To help ensure that no significant missile or satellite technology is transferred to China, the United States negotiated a bilateral technology safeguard agreement with the PRC that remains in force today. This overall policy, including the technology safeguard agreements and the related monitoring requirements, was a wise policy when it was adopted in 1988, when it was expanded in 1992, and it remains a wise policy today.

DOD takes its overall role in the development and implementation of export control policies very seriously. The case of commercial communications satellites with China presents significant challenges to the U.S. export control system as we seek to ensure that no technology is transferred that would improve China's indigenous missile or satellite capabilities. We believe that the current system protects our national security and is doing its job.

Thank you very much.

Senator COCHRAN. Thank you very much. We appreciate the panel's statements.

First I am going to yield to my distinguished colleague from Michigan, Senator Levin, for any opening statements or comments he would like to make before we begin our questioning.

OPENING STATEMENT OF SENATOR LEVIN [1]

Senator LEVIN. Mr. Chairman, thank you for doing it that way.

It has been 10 years since President Reagan changed our policy with respect to China and approved the export of commercial communications satellites for launch in China. That change was controversial at the time; indeed, it was adopted against the recommendation of President Reagan's Science Advisor, who testified before this Subcommittee last month. Both President Bush and President Clinton continued down that road.

Congress will hopefully look in a bipartisan way at whether the policy is working and whether it is in our national interest to continue it.

[1] The prepared statement of Senator Levin with additional copy appears in the Appendix on page 103.

A bipartisan Congressional review is appropriate; indeed, it is overdue. Over these past 10 years Congress has had ample opportunity to weigh in on this issue. The chart there on the right shows that since Tiananmen Square, Congress has received 20 notices of decisions by Presidents to export communications satellites to China, 20 times, 20 waivers. Congress could have acted to stop satellite exports if it had a concern, but it did not.[1]

The same is true with a decision by President Bush in 1992 and by President Clinton in 1996 to shift certain types of commercial satellites from the State Department Munitions List to the Commerce Department Control List. Congress received 30 days' prior notice in which it could have taken action to disapprove each of these transfers. In fact, with respect to the 1996 transfer ordered by President Clinton, Congress had almost 7 months in which to act. The White House issued a press release in March 1996 announcing the proposed transfer of commercial satellites from the munitions list to the Commerce Department, and the transfer itself didn't take place until that November. Now, that was right in the middle of the appropriations process back in March, when that press release was issued, where Congress also had the opportunity to block the use of appropriated funds to carry out the transfer. Yet there was not one step taken by Congress to block the licenses for those satellites or to reverse the decision by Presidents Bush and Clinton with respect to the munitions list.

Moreover, it is the responsibility of Congress to reauthorize the Export Administration Act. Reauthorizing the Export Administration Act is a direct opportunity for Congress to address any issue it may have on how the Commerce Department handles dual-use items—items which can be used for both commercial and military applications—yet that legislation has sat unresolved for years.

Now, the export control process which is now in place is not an easy or a simple process, and nothing is when so many agencies are involved. But the process is not intended to be an easy one. It is intended to allow for a balancing of a range of competing national security, foreign policy, and commercial concerns. And as you can see on the chart there on the left, the current process is a two-track process, one for the issuance of an export license, one for Presidential waiver. Both the Department of Defense and the State Department have two bites at the apple, and three appeals if their position is not heeded, right up to the President of the United States.[2]

That two-track process is seen there, with the top line in blue with the initial decision of the agencies. If any agency disagrees, there are three appeals on that second line that can go right up to the President. And the waiver process, which is down on the bottom, the second track or second step also involves the Department of Defense and Department of State, and that also must be approved by the President on recommendation of the National Security Council.

Today we are going to continue the effort to find out if this process contains adequate safeguards for the licensing of satellites for

[1] The referenced chart appears in the Appendix on page 101.
[2] The referenced chart appears in the Appendix on page 102.

launch in China. The GAO said that it was unable to draw a conclusion on that question because it hadn't examined the operation of the two-track process, and this Subcommittee—and I believe others—have tasked the GAO to try to reach a conclusion in that regard.

So we have a very important task in front of this Subcommittee today, Mr. Chairman. I commend you for gathering us together again in this effort to determine whether or not this process protects our national security.

Senator COCHRAN. Thank you very much, Senator Levin.

Let me start off by asking Secretary Reinsch to respond to a couple of questions, the first of which has to do with a briefing which you made available for the members of our staff on May 29. You mentioned at that time that the purpose of the President's decision back in March of 1996 to move all commercial satellite export licensing from the State Department to the Commerce Department was to change the process, not the substance, of the administration's export control policy for satellites.

What problems were there with the Clinton administration's process prior to 1996 that made this change necessary?

Mr. REINSCH. I think that is a question—I will answer it—that is best addressed also to the companies, because they are the ones that have to go through the process.

At the beginning level, the first line of Senator Levin's chart, if you will, there are significant differences between the State Department and the Commerce Department processes that the companies felt made a material difference in the way these decisions are made. The best way to summarize it is that the Commerce Department process is open, transparent, and time-limited, and the State Department process—which, after all, is a process for weapons and weapons systems—is not.

I frankly think there are good reasons in both cases. If we are making a decision to sell a weapon or a weapons system to a foreign power, it is appropriate to take plenty of time, have a relatively small number of agencies—i.e., State Department and Department of Defense—review it, and have a reasonably opaque process.

The Commerce Department controls dual-use items, which means items for which there is substantial civilian—or civil, if you will, commercial—demand. Oftentimes the ability to market a product or to sell it is directly related to your ability to provide it in a timely manner.

Over the years, and we've been in this business since 1949 as far as the Commerce Department export controls are concerned, over the years we have developed a system which is designed to be process-friendly for the exporter. We have electronic systems that exporters can dial into to learn the status of their application. We publicize the names and phone numbers of our licensing officers. We encourage contact. We hold meetings. We bring the agencies in. As you can tell from the chart, we have time limitations on making decisions.

These are all elements of a process which is designed to allow the exporter to interface with the government, to learn what the problems are, and to operate in a system in which the exporter has an

opportunity to respond to the problems. That is distinct from the State Department's system, and we felt that for dual-use—we believe, and I certainly feel now—for dual-use items, that is the appropriate kind of system to operate, and that satellites are properly a dual-use item under that system.

Senator COCHRAN. Is it correct to say that the purpose of a commodity classification by the Commerce Department is to determine under what type of license a commodity is to be exported?

Mr. REINSCH. Well, there would be several purposes. One purpose of a commodity classification would be to determine that. Oftentimes we simply get inquiries from exporters saying, "What is this?" "It's a widget." "I know it's a widget, but is it a widget that is subject to this set of controls or that set of controls?" Our regulations are complex because we have different control regimes for different countries, for different regions, for different purposes. That's not true for satellites, where we control to all destinations, but as a general matter we have a lot of classification requests from exporters who simply want to assure themselves that they are putting the proper classification on their product.

Another purpose would be to distinguish whether a State Department license is required or a Commerce Department license is required. In that case the exporter could go to the State Department or he could go to the Commerce Department.

Senator COCHRAN. Are exporters ever notified as to the result of a commodity classification that a general license can be used for an export—that is, that an individual validated license isn't necessary?

Mr. REINSCH. That could be one result, if the commodity didn't require one.

Senator COCHRAN. Do experts at the Department of Defense or the State Department have a formal role in the process by which a commodity classification is determined?

Mr. REINSCH. One of the things that happened as part of the jurisdiction transfer in 1996 that has not been commented on in detail is that the President also put in place a process for resolving differences of opinion, as a general matter, between the State and the Commerce Departments over issues of whether an item should be licensed under one system or the other system.

The line between what is military and civilian, as you can tell from our testimony and your statements, is blurry and is getting blurrier, and it's one that occasionally runs into controversy. I believe it was a comment that the Bush initiative resulted in some two dozen items being transferred; in fact, some have gone the other way. This is a moving target.

As part of the process that the President put in place, we agreed to share with the State Department a set of commodity classifications that we felt might intrude on their territory—and Department of Defense; I don't mean to exclude them—for them to review. The State Department, in turn, agreed to share the same with us if they had some that they felt fell properly in our area. So there has been some transfer of commodity classifications for other agency review. I don't believe that as a result of that, though, which has been going on since the end of 1996, that anybody has flagged any of them for remedial action.

Senator COCHRAN. Is it correct that only those items requiring an individual validated license are subject to the Executive Order 12981 process that is subject to review by departments other than the Commerce Department?

Mr. REINSCH. That's correct.

Senator COCHRAN. OK. So only those items requiring an individual validated license are subject to that process?

Mr. REINSCH. Well, those are the only items—that's correct, but let me make clear what we're talking about. Those are the only items that require a U.S. Government export license. The other category of items are those items that we currently refer to as EAR–99, which in the past were called G–DEST or "NLR," no license required. These are items that don't require a license.

Senator COCHRAN. You said at the beginning of my line of questions that exporters are notified as a result of a commodity classification that a general license can be used for an exporter. They ask you?

Mr. REINSCH. If it is appropriate in that case, yes.

Senator COCHRAN. And that is that an individual validated license is not necessary?

Mr. REINSCH. That would be one of the things that we could tell them, yes.

Senator COCHRAN. And if it's not necessary, then the other departments aren't involved in a formal way in the review?

Mr. REINSCH. That's correct.

Senator COCHRAN. Secretary Holum, is the purpose of a commodity jurisdiction to determine whether an item should be licensed for export either under the jurisdiction of the State Department Munitions List or the Commodity Control List?

Mr. HOLUM. That's how we use it, yes.

Senator COCHRAN. Does the Commerce Department have a formal role in the commodity jurisdiction process?

Mr. HOLUM. I would have to consult.

Mr. REINSCH. That's what I was just alluding to, Mr. Chairman, the process that has been established.

Senator COCHRAN. I want to hear him answer it now.

Mr. HOLUM. The answer is yes, they do have an opportunity to be involved in our reviews.

Senator COCHRAN. OK. I am going to withhold further questions and defer to my colleagues.

Senator Cleland.

Senator CLELAND. Thank you, Mr. Chairman.

Senator COCHRAN. You got promoted real quick. [Laughter.]

Senator CLELAND. Let me just thank you all for struggling with this issue.

There are several things that just leap to mind in the testimony. First, the comment that the same companies make both products. They make military equipment that is sensitive, and they make communications satellites. I think that is our challenge, how in the world to determine what is potentially dual-use. And in that process, it seems to me, since the same companies make both products, and the effort of the Commerce Department is to be process-friendly, it does seem from a national security perspective that you need something to countervail that and to be national security-conserv-

ative or national security-slow or whatever, and that maybe that's the role of the Defense Department. Somebody needs to referee this. Maybe that's the State Department, because they take all these things into account. And maybe the ultimate referee or decider is the President if those entities disagree.

That seems to me maybe a logical way to work it. I guess I have real concern about the Commerce Department more and more becoming the lead dog here, and I understand the need for commercial interests and being process-friendly. But here we are, talking about national security, and the companies are making the same products, satellites, rockets, and boosters, that are possibly targeted toward us. I mean, this is serious business here, so I have concern about the current process.

Second, I note that of the current process—if any agency disagrees, then there's a vote, and a majority vote wins. Now, that's all right down here, but in terms of national security, I'm not sure, I just want to put that up for a vote.

Third, I notice that the CIA and the Joint Chiefs are nonvoting members.

I guess I have concern about the procedure, that we are not, in this highly technical and highly specialized area, violating our own security, and that we have a process that really tolerates that.

And fourth, there is a concept in which communications, in and of itself, facilitates intelligence, and intelligence is the key to winning battles on the battlefield. We are investing so much of our own DOD money in improving surveillance, in improving the digitizalization of the battlefield and our understanding of where we are on the battlefield, where the bad guys are, and where our friends are—I mean, this whole information world out there is the key to victory. So I think we have to be very careful about the process.

I just have great concern that the Commerce Department seems to be more and more, over the years, the lead dog here, and that that process is more and more friendly to commercial interests. I guess I would rather see us hedge our bets and put national security first and the Commerce Department second.

I would like any of you that want to comment on that, to comment. Mr. Secretary.

Mr. HOLUM. I would like to begin with just one very key observation, then defer to my colleagues.

It seems to me that as I listen to our statements, including my own, I don't think this comes through clearly enough and it needs to be underscored. We are dealing with a situation in which the Chinese don't get technology if it is under a State Department license, and State Department licenses still apply to a number of these transactions if they have items that are on the munitions list associated with them in a way that would make them accessible. But they don't get those items, they don't get the satellite, they don't get the sensitive technology that is imbedded within the satellite. It goes there under escort. It is monitored continuously. It is mounted on the launcher and shot into space. They don't have it, so their access to the technology is limited by that basic reality.

I think we haven't been clear enough in explaining the process here. Something I saw in the press described this as similar to Fed-

eral Express, except that Federal Express, I suppose, could open the package. But they don't know what's in it. All they're doing is delivering it, and that's essentially what's happening with the satellite launch.

Now, even if the satellite is sold to China, they don't get to take it apart and look inside and decode and reverse engineer the components of it. It still goes there under safeguards and monitoring and is shot into space; the difference is that they get the benefit of it. They get to use the satellite services. Many of these satellites are sold to other countries; they are just launched by China.

Mr. LODAL. That's very well stated, John. I might elaborate just a little bit, especially on the point about the companies.

It is true that these same companies make military satellites and communications satellites, by and large, but they don't necessarily make the rockets and the missiles and the satellites. This really goes back to what happened in 1996. I think we faced the reality there, as one of my colleagues said in his statement, that the commercially viable communications satellites were going to have imbedded in them some sensitive technologies. So if we were going to have a policy that made any sense at all that permitted our industry to continue to progress, we were going to permit the launch of satellites that did have these imbedded technologies, because the 1992 decision did not permit them to be licensed by the Commerce Department, so they still had to go through the more complex Munitions process even if it was imbedded.

So yes, we went a step further in saying the kind of satellites that might be made by a military contractor, with even some military-type technologies imbedded in them, could be launched by China and could be licensed as dual-use items. But we didn't move one inch, one hair-width, on the question of the launchers, the basic vehicles, or the technology incorporated in either the launchers or the satellite itself. Those stay on the munitions list and can only be licensed by the State Department and can only be exported—and we don't do that for China, because we maintain this zero tolerance position with regard to missile technology for China, despite the fact that there are other countries in the world that are providing some of that technology to China. It was our view that this should not be something that the United States does, and that's why we drew that very firm line between the box, if you will, which goes on top of the "truck," if you will, that carries it into space, and all the rest of it.

Mr. REINSCH. Let me make a process comment, a more general comment to respond to yours, if I may, Senator.

I guess I am flattered to be the "lead dog," although I must say that in dealing with these agencies I don't usually end up in that position. [Laughter.]

I think what the President did in 1995 in the Executive Order was an effort to address the concern that you raised. What he recognized was that these are complicated decisions. Keep in mind the kind of items that we're talking about. We're talking about satellites today, but a lot of what the Commerce Department controls far more is computers, telecommunications equipment, chemical precursors—they can be fertilizer if they're one way, and chemical weapons if they're another way, machine tools, things where you're

talking about a "use universe," if you will, that is about 90 percent civilian and about 10 percent not.

What the President concluded—and we spent a lot of time on this in the context of developing a proposal to amend the statute in 1994 and 1995—was that these decisions require multiple factors, and there are multiple agencies with equities. What he essentially devised was a system in which those agencies that had something to contribute got a seat at the table. The Commerce Department runs the system; and I said "process-friendly." I didn't say "policy-friendly." I will take exception vigorously to any suggestion—and I don't know that you've made one—but any suggestion that the Commerce Department is less interested in national security than the other agencies are. We run the system, and I think we run it in a way that gives the taxpayer—after all, exporters are taxpayers—what they are entitled to, which is a rapid, clear decision. That's what government is supposed to be about, and that's what we try to do.

The Defense Department comes to the table and makes the national security argument. The State Department comes to the table and makes that argument and the foreign policy argument. The Arms Control and Disarmament Agency—Mr. Holum has two hats, he can come to the table and effectively vote twice. He makes a nonproliferation argument. The Energy Department comes to the table, particularly on nuclear items, and interjects its point of view.

The idea here was to get everybody who had something to say about the thing up there at the table at the same time and create a process in which all those factors could be weighed and balanced.

Now, as a matter of record—and as I said earlier, we have been in consensus on all the satellite cases that the Commerce Department has handled—as a matter of record, 95 percent of the licenses that the Commerce Department works on are resolved by consensus at the working level and never enter into the decisionmaking process that Senator Levin had up here. That tiny number that do enter into the decisionmaking process that Senator Levin has in his chart have never, in this administration, gone beyond the assistant secretary level.

Now, theoretically, as I said, one of the other agencies—or we, if we are on the losing side—could take a matter all the way to the President. We've never had to do that because we've been able to reach consensus at the assistant secretary level. And I'm making a statement here not just about satellites, but about all licenses.

When we did that, this was a hard-fought issue. It was a hard-fought issue in my building, frankly, and making this Executive Order was something that I take some pride in personally. What we did was, we provided to the Defense Department something that they had wanted for 15 years, and I say that, having worked up here on 10 different rewrites of the Export Administration Act; that is, they wanted to be able to review all licenses. Prior to the President's Executive Order in 1995, we were referring about 52 percent of our licenses for other agencies' review. Now we are referring between 92 and 95 percent of our licenses, because we will send them whatever they tell us they want, and they tell us by category: "If it's going to China, we want to see it. If it's a satellite, we want to see it. If it's in this category, we want to see it."

So the system, I think, has worked smoothly. It has largely been a product of consensus. What you hear about up here, of course, are the places where there was some controversy. These things happen, but we have a process to resolve it, and I think they will tell you that their equities are protected all the way to the top.

Mr. LODAL. I would agree with that, and I would emphasize that while it is a majority vote, it has a little bit of a different flavor to it in that anyone who doesn't like the majority can appeal it to the next level, up to the President. And, of course, the Director of Central Intelligence and the Chairman have their independent authority to advise the President should they feel so strongly.

It's kind of a small change, but in the previous system, the Commerce Department alone, could force it, if you will, either to go the way the Commerce Department wanted it, or into a more complex escalation and appeal process. But now, the Commerce Department has to get at least somebody else to line up with them, or else the majority will go the other way and it's settled at that point.

Senator CLELAND. Mr. Secretary, could I just interrupt? Do you think the State Department should be the lead agency in this process? I understand the process and I didn't really mean to make light of the majority vote. I understand the consensus. But I guess what I'm trying to figure out, is there a consensus here, given the incredible national security interest, of all the things you just mentioned, Mr. Secretary—the biological and chemical capabilities, the intelligence capabilities, with computers and satellites and so forth. Everything you mentioned seems to have greater and greater national security interest. I just wondered if the State Department, or even DOD, might be better suited as the lead agency here.

Mr. REINSCH. Well, I think certainly on munitions, if it's a question of whether it should be—State Department or Department of Defense—it's been the State Department, and I think that works well, because State Department's responsibilities are to take into account all aspects of our national security and foreign policy considerations.

The Defense Department does have the primary responsibility to talk about the impact on national security, and that has always been respected. I don't know of any cases where——

Senator CLELAND. It seems to me that increasingly, information, in this information world, is ammunition, or munitions, in many ways.

One more question, if anybody would like to answer it.

It seems to me that at some point in the 1980's there was a decision that this country would not build the capability to launch domestic or commercial satellites in space, that we would use our launch capability—our delivery systems—for national security satellites only, and that in effect we would loosen up and contract out—and be willing to contract out—to other countries like China, France, other countries, even Russia, to launch "commercial satellites." It seems to me that was a key judgment call, especially since commercial satellites now are built by the same people who make military satellites, and the dual-use technology is so closely connected that it is hard to separate it now.

I just wonder if anyone would like to speculate on either what it would cost for us to go into the domestic commercial lift business

into space, or whether that would be a good governmental decision, in effect to take back our decision and do it ourselves?

Mr. REINSCH. Let me make a comment, Senator Cleland, if I may, sir, reserving the right to perhaps get back to you with more information at a later point, because it's an intriguing thought and a new one.

The United States has had commercial launch capabilities. We do some of this now. I think the figures that the industry has provided us is that on a global basis, we provide about two-thirds of the world's satellites and about 40 percent of the world's launches. So the capability is there, but you can see that there is also a gap.

I am not aware of an explicit decision. There was a lot of controversy in the mid-1980's and late-1980's when President Reagan was moving toward a decision to permit Chinese launches. I was here at the time and got a lot of input from the "rocket companies," if you will, and it is true that there are fewer of them now than there was then. You've probably seen that tree diagram that starts out with 40 or 50 defense companies, and now it's much smaller.

They were very concerned at that time that the Chinese were going to be dumping launch services, effectively underpricing them, and one of the things they persuaded the Reagan administration to do was to negotiate not only the Technology Safeguards Agreement that we went into, but a pricing agreement and a launch quota agreement, which was renewed by this administration in, I believe, 1993. Those agreements commit the Chinese to keep their prices within a certain range. As a nonmarket economy, there aren't market rules prevailing. And it effectively gives them a quota of launches through the year 2001.

I think the economics of launches in the past 8 years or so have largely militated, until recently, against the creation of new launch services for economic reasons. It's large, it's expensive; it's dangerous in the sense that people can get killed, but it is also financially dangerous when one of these things goes off course. If you blow it up, you're talking about an insurance package of hundreds of millions of dollars.

But there are several launch service providers, new ones, coming on line, including an ocean launch platform that is a consortium of an American company and several foreign companies.

You might want to ask that particular American company why they chose to enter into a consortium with non-American companies, and why they chose to go offshore instead of inside the continental United States. I think, frankly, it's a matter of economics. Now, whether the Federal Government should do something about it is a very interesting question, and it might be something that the Armed Services Committee will want to look at, because that's where a lot of these facilities fall.

Senator CLELAND. Well, thank you all very much. I appreciate you all grappling with this issue, and we appreciate your service to our country.

Thank you very much, Mr. Chairman.

Senator COCHRAN. Thank you, Senator.

Senator Collins.

Senator COLLINS. Thank you, Mr. Chairman.

Secretary Holum, you testified that the Loral Chinasat–8 project, which has been the subject of so much press scrutiny lately, was handled "in a normal manner and was consistent with longstanding State Department policy." Is that an accurate assessment of the testimony that you gave us?

Mr. HOLUM. Yes. Referring to the waiver in—the more recent waiver allowing a further license for a subsequent launch, notwithstanding the criminal investigation going into a previous case.

Senator COLLINS. That's what I want to pursue with you.

Are you aware of any other case where the President approved a waiver for a company despite a specific warning from the Department of Justice that going forward with this waiver might jeopardize the successful prosecution of an earlier export violation?

Mr. HOLUM. I am not. I was referring to the State Department process and our own approval, rather than what happened subsequent to that.

I am not aware of any such case one way or the other. I am aware that in terms of our own precedents in the State Department—in fact, these precedents have been searched—that we have not previously denied licenses to companies that are under investigation short of an indictment, except I think there was one case where the company itself had a rogue employee who was forging licenses and they didn't know which ones were valid, so they agreed with us that they should suspend licenses.

But the general practice—this is specifically what I was referring to—is that if there is an investigation of a company underway, we obviously want to be aware of that, but we don't deny licensing rights solely on that basis.

Senator COLLINS. I understand that you don't advise denying a waiver solely on the basis of a pending investigation. But what we have here is quite different. What we have in the Loral case is the Department of Justice specifically saying that going ahead with the waiver could have a significant adverse impact on the Department of Justice's ability to undertake a prosecution involving the earlier technology transfer.

Isn't that a different situation?

Mr. HOLUM. I don't know how different it is because I don't know what other precedents there are.

Senator COLLINS. But you don't know of any other case where there was a waiver granted, despite the Department of Justice specifically saying that this could jeopardize an underlying case?

Mr. HOLUM. No, and I probably wouldn't know of any such case, were there one. But my understanding is that in this case, this was a decision that was made taking into account the views of all the relevant departments and agencies, including the Department of Justice, when the waiver decision was finally made.

Senator COLLINS. According to press reports on this waiver, the State Department had already alleged in a letter to Loral executives that there had been a violation of our export control laws in the earlier episode, this is, in the accident review. Is it unusual that the White House—the President himself—would go ahead even after the State Department had made a preliminary determination that there had been a violation?

Mr. HOLUM. I think it would be consistent with practice, again, because on that basis alone we wouldn't recommend denial of a waiver.

Senator COLLINS. Mr. Chairman, it strikes me that this case was anything but routine in that we had a specific warning from the Justice Department that going ahead might jeopardize an investigation in which the State Department believed the company had broken the law.

I have several more questions but I know that people have been waiting a long time, so I will end now in the hopes that perhaps we'll do a second round. Thank you.

Senator COCHRAN. Thank you, Senator.

Senator Thompson, Senator Levin has not objected to my recognizing you next since you were here earlier.

Senator THOMPSON. All right. I appreciate it.

In 1996, the transfer was made. The satellites that remained on the munitions list were transferred—the jurisdiction was transferred—over to the Commerce Department. Prior to that, the interagency group, including Secretary Christopher, recommended against that transfer. I assume that their rationale was the same as those who had preceded them, and that is that there was some danger in connection with this technology transfer of American satellites.

Then, as I understand it, the President came back with an Executive Order that apparently satisfied this interagency group, that even though they had concerns about this transfer of jurisdiction, those concerns were now satisfied because of additional safeguards that Executive Order contained.

That last sentence—you may not agree with everything that I've said, but is that last sentence basically correct?

Mr. LODAL. Yes.

Senator THOMPSON. And part of those safeguards had to do with this process that you have described here, where you say everyone more or less gets a shot at it. Essentially, that is what we're talking about. I want to examine that process just for a minute.

As I understand it, with regard to an export license application, there is the interagency review. If it is not unanimous, it goes to the operating committee, first of all; then if it is not unanimous there, it can be appealed to the Advisory Committee for Export Policy, ACEP——

Mr. HOLUM. It's a majority vote at those levels, rather than unanimous.

Senator THOMPSON. A majority vote.

Then if there is a majority vote, to appeal that, it can go to the Export Administration Review Board?

Mr. HOLUM. Any losing agency in the majority vote can appeal it to the next level. So a single agency can appeal a decision by the majority.

Senator THOMPSON. All right.

Now, as I understand it, in order to appeal a decision by the ACEP, the agency desiring the appeal has to go back to his department and go to his assistant secretary and get him to agree to appeal it?

Mr. HOLUM. If it's at the ACEP level, it is the assistant secretary level, so——

Senator THOMPSON. So for example—we'll take the Department of Defense. You have within the Department of Defense what is referred to as DTSA, technical people who sometimes object to these transfers. In the first place, the person who actually reviews the matter for DTSA is not necessarily the person who sits on this interagency group to start with, correct?

Mr. LODAL. Correct.

Senator THOMPSON. All right. So somebody else from the Department of Defense sits on the interagency group. He makes his recommendation to turn down the export license, which sometimes happens, correct?

Mr. LODAL. Yes.

Senator THOMPSON. It's not unanimous, so it goes to the operating committee, and then it goes from there to ACEP?

Mr. LODAL. Well, actually, the operating committee is at the working level, more or less. That's the lowest level committee; that's the first one. Then it goes to ACEP, which is assistant secretaries.

Senator THOMPSON. All right. In this particular case, the representative from the Department of Defense would have to come back and get the sign-off by the Assistant Secretary of Defense in order to appeal to ACEP?

Mr. LODAL. Right. At the operating committee, the people are technical people, mostly from DTSA. So they have been the people who have been involved in the actual review. So then if it went against us, if you will—which it has never done on satellites, but were that to happen at the operating committee—he would come back and come to the assistant secretary that supervises DTSA and then it would go to the ACEP.

Senator THOMPSON. So it's never gone against you on satellites?

Mr. LODAL. No.

Senator THOMPSON. Is that correct?

Mr. LODAL. Yes. I think there was an issue where at an early stage we had a disagreement on one—not a satellite, but one of these technologies that are included as a separate matter, but my understanding is that that was resolved also, before it got to the assistant secretary level.

Mr. REINSCH. If I could interject, Senator, normally what happens in these cases is the license reviewing officers at the working level in all the agencies will often have questions, and the first thing that comes back to us as sort of the "mail box" of the system, if you will, is not a yes or a no, but a question: "We don't have enough information. We need to know the following additional things." And then we go out and get that information, and then it is recirculated and discussed.

And the system sort of waits. We have a means in our process to stop the clock if we are waiting for the exporter to provide more information, but I wouldn't want to suggest that the fact that DTSA has come back with a question should be construed as suggesting that they have an objection.

Senator THOMPSON. Well, I wasn't going to get into that, but you're not telling me that the operating officer at the DTSA level

never had an objection, not a question but an objection, which is in turn overruled by the operating committee. You're not saying that that's never happened, are you?

Mr. LODAL. That has never happened on communications satellites.

Senator THOMPSON. On satellites?

Mr. LODAL. Right.

Senator THOMPSON. But with regard to other things, it does happen?

Mr. LODAL. It does happen, yes.

Senator THOMPSON. As I was saying, if the reviewing official from DOD is over-ruled at the operating committee, he has to go back and get the assistant secretary to intervene.

How many levels are there administratively between the person who would be representing the department at this operating committee, and the assistant secretary?

Mr. LODAL. Well, the head of DTSA reports directly to the assistant secretary—let me ask Mr. Tarbell to clarify this.

Senator COCHRAN. Would you please identify yourself for the record?

Mr. TARBELL. My name is Dave Tarbell. I am the Director of the Defense Technology Security Administration, otherwise known as DTSA.

Senator, the way that it works, to sort of get at your organizational question, within my organization I have a licensing division, and that licensing division represents us at the operating committee. Within that licensing division we have individual licensing officers who review licenses. Those officers make recommendations, and the initial recommendation for DOD, into the system.

When there is a disagreement by any agency within that process, it gets to the operating committee. So for example, if we disagree with the Commerce Department as to whether or not a licence ought to be approved, or a condition ought to be approved, then it would come before that committee for a discussion. Setting aside communications satellites, the procedure then is that the Commerce Department looks at all the recommendations——

Senator THOMPSON. What do you mean, setting aside communications satellites?

Mr. TARBELL. Setting aside communications satellites, because communications satellites are subject to majority vote at that level. But for all other licenses, with the exception of a few that work like communications satellites, like hot session technology for aircraft, Commerce Department issues what is called an ''Operating Committee Licensing Decision.'' We then have 5 calendar days, if we disagree with that decision, to get an assistant secretary to send a letter to the Commerce Department to appeal that decision to the ACEP.

Senator THOMPSON. Now, that 5 days, does that pertain to satellites or non-satellites?

Mr. TARBELL. It pertains to everything. It pertains to satellites as well. So if there was a majority vote in the operating committee on a satellite license—which there's never been because we've never had a disagreement which got to that point—if there were a majority vote on the operating committee that went against us,

then we would have to go and appeal that to the assistant secretary. I report to a deputy assistant secretary, so that decision has to come through me, goes through a deputy assistant secretary to an assistant secretary for a letter to go out of the Department.

Senator THOMPSON. So you have to get written objection or agreement to appeal or whatever——

Mr. TARBELL. An appeal that has to be signed by an assistant secretary who is confirmed by the Senate, yes.

Mr. REINSCH. Let me add a note also on what happens. Normally with this process, if they're going to escalate, they call and let us know, which effectively—what we usually do in that case is make sure that they get enough time to get their letter in.

Mr. TARBELL. Let me be clear. The rules are 5 days, but if it's on a weekend we call up and say, "We're going to have a letter," and they will say, "Fine."

Senator THOMPSON. In a town where it takes 2 months to get your letter answered across town, that still seems like a very short period of time, and that's one of the things I wanted to get to. You've got to go up two levels within your department and explain the situation to an assistant secretary in order to get him to intervene in order to take it to the next level, and at the next level, if you want to take it to the Export Administration Review Board, if you want to take it past that, you have another 5 days, don't you?

Mr. TARBELL. Yes, sir. If there is a majority vote at the ACEP that goes against us and we disagree, then we can take it to the Export Administration Review Board, and that is at the Cabinet level.

Senator THOMPSON. So at that point you have to get the Secretary to intervene, to take it up to that point?

Mr. TARBELL. Yes, the Secretary——

Senator THOMPSON. But of course, you've never had a situation that got that far?

Mr. TARBELL. That's correct.

Senator THOMPSON. Which Mr. Reinsch thinks proves his point, and I think proves mine. I can well understand why you've never gotten one up that far.

But in all seriousness, this is something that jumps out at you. You have a complex situation. You have people, starting at the operating committee, some of whom are very knowledgeable in these areas and some of whom are not necessarily knowledgeable in these highly technical areas that you're dealing with.

Mr. REINSCH. I would object to that, Senator.

Senator THOMPSON. Your objection is noted.

Then you have to go back to two levels within your own Department and intervene within 5 days, and at each level of the interagency review—who chairs the operating committee?

Mr. REINSCH. The Commerce Department.

Senator THOMPSON. Who chairs ACEP?

Mr. REINSCH. The Commerce Department chairs all the levels.

Senator THOMPSON. Who chairs the Export Advisory Review Board?

Mr. REINSCH. The same, the Commerce Department. This has been the same for years, prior to the 1995 or 1996——

Senator THOMPSON. OK, fine. The question becomes, as I said in the beginning, whether or not this is an effective review process with regard to a matter, as Senator Cleland pointed out, involving potential national security. And I think that clearly that process and the Export Administration Act, which says that the President can intervene in matters of national security and foreign policy, are held out to be the safeguards, more or less. But I assume that with regard to the utilization of those provisions under the Export Administration Act, where the President can intervene, that it would have to go through this same administrative process, would it not, to work its way up to the President?

Mr. LODAL. I'm sorry, which cases are you referring to that would have to go up?

Senator THOMPSON. Well, if a determination is made that a particular export would involve matters of national security or should be turned down—of course, you could do anything you wanted to do, I assume, unilaterally—but as a practical matter that would work its way up through the same administrative process, wouldn't it?

Mr. LODAL. Well, if it wasn't agreed at a lower level. Now, for communications satellites, our advice has always been accepted; if we felt it had a national security implications—there aren't any cases, I believe, that we know of, where it was necessary to do that, because our advice was always accepted, from the Defense Department.

Senator THOMPSON. All right.

Mr. LODAL. Could I just clarify one quick point here?

It seems a little cumbersome, but in fact—I probably sign 30 documents a day myself; our assistant secretaries do 20 or 30, we have lots of E-mail, we see the Secretary, we see the Deputy Secretary every day. We, in fact, can do these things in a matter of hours or a day or two if we need to. And I don't think—Mr. Tarbell tells me he has never been overruled by his assistant secretary. I don't think he's ever overruled his analyst on these——

Senator THOMPSON. Well, let's let him answer that question, whether or not he has ever overruled one of his analysts.

Mr. LODAL. Sure.

Mr. TARBELL. Yes, sir, I have overruled my analysts plenty of times because this is a balance of judgment that I'm paid for. And frankly, occasionally, my analysts will bring forth a case that they believe has policy merit and has policy considerations around it that frankly doesn't.

Many times what will happen is that these cases will come for my consideration, and I will make a judgment that says, "This is just not important enough at this point in time to bring up the line." And I balance that against other views within the Department on this matter.

My role is to bring all of the various factors to play, including the advice and consideration from the Army, the Air Force, the Navy, and others on this matter. So I will consult with those people and make that judgment, and we have lots of conversations about this.

The third kind of situation is a situation where this matter comes to my attention, and we often get in touch with the Com-

merce Department, and I make it known to them that this is something that we're very serious about, and we reconcile it on a consensus basis and try to come up with some kind of compromise so that we don't have to take up the time of busy people up the line. And in many cases, the Department of Commerce comes over to our side and puts in a condition, puts in some kind of a framework that meets our security objectives. In those circumstances, I think that that allows us to be at a standpoint that we're comfortable with the export being allowed.

So that's the framework that we operate in. This is a situation where, at my agency, we're reviewing from the Commerce Department 9,000 licenses a year.

Senator THOMPSON. Would there be instances, then, of those many instances that you referred to where you've overturned your analyst, where an analyst objected to a transfer and it never made it to the operating committee?

Mr. TARBELL. No. It is usually then discussed, and I can't think of a circumstance where it was that this came up to my attention before it had gotten to the operating committee and been fully discussed interagency. This is usually after the Commerce Department has issued a license determination that I talked about, after the operating committee, to try to make a judgment about whether or not it is something that is important enough to escalate to the assistant secretary level.

Senator THOMPSON. So it would be at the escalation point that you would in fact overrule your analyst?

Mr. TARBELL. Yes, sir. That's a responsibility that the assistant secretary has——

Senator THOMPSON. Well, this is obviously relevant to everything that we're looking at. I don't think that's the focus today, but I appreciate your testimony on that because as I understand it, DTSA is really where the rubber meets the road, and you and your people have to make the decision many times on the front end, from an analytical standpoint, as to whether or not this particular technology can be used or is probably going to be used by the person receiving it for military purposes, and whether or not it can be converted to military purposes. These are very important things, and they are at your level that you have that determination.

While I've got you here, I have read or heard recently that DTSA is going to be changed organizationally. It's going to be moved within the Department of Defense from one under secretary to another, or that you're going to be physically relocated in the suburbs here somewhere. Can you tell me what the situation is with regard to DTSA, Mr. Secretary?

Mr. LODAL. Certainly. We do plan to include DTSA in a newly-created Defense Threat Reduction Agency, which will involve some physical relocation of the organization as well.

This agency will include all of the main operating elements in the Department of Defense that deal with proliferation and arms control matters, and we believe it will give us the ability to have some consolidated management over those issues that will report directly to the under secretary for Acquisition and Technology.

Most of the work on a day-to-day basis that is done by DTSA is technical work. They have engineers, they have experts in various

technologies who look at these cases and these licenses and understand "what is this thing and exactly how is it going to work," and its engineering characteristics and so forth.

The policy oversight, the policy questions, will remain the responsibility of the Under Secretary of Defense for Policy, even in this new organization.

Senator THOMPSON. So DTSA is being removed from the Under Secretary for Policy?

Mr. LODAL. Yes, and moved to the Under Secretary for Acquisition and Technology.

Mr. REINSCH. I would just like to say on the record, Senator Thompson, that the Commerce Department had nothing to do with anything that has happened there. [Laughter.]

Lest there be a suspicion.

Senator THOMPSON. So you're moving DTSA from the Under Secretary for Policy to the Under Secretary of Acquisition?

Mr. LODAL. Acquisition and Technology.

Senator THOMPSON. And Technology. Well, that's to be further explored, I must say. And you are physically removing them from their current offices and placing them where?

Mr. LODAL. They are in private offices now, and they will move to some new private offices. I guess it's near Dulles Airport.

Senator THOMPSON. Where are they now?

Mr. TARBELL. We're in Pentagon City.

Senator THOMPSON. OK. Well, to be later discussed. I must say that at first blush it seemed rather strange.

I have nothing further.

Senator COCHRAN. Thank you, Senator.

Senator Levin.

Senator LEVIN. Thank you, Mr. Chairman.

Has the Defense Department been satisfied that national security has been satisfactorily taken into consideration on each of these satellite launches?

Mr. LODAL. Yes.

Senator LEVIN. Now, if you could put up both charts, here, for a minute.

As I pointed out in my opening statement, Congress received notice of each of these licenses in the post-Tiananmen era, and no Congressional action was taken relative to them, nor was any Congressional action taken when the items were transferred from the munitions list in the Bush administration, first, and about half of them were transferred, as I understand it, and then when the rest of them were transferred in the Clinton administration, Congress took no action at that time. Is that correct, Secretary Lodal?

Mr. LODAL. To my knowledge it is. Let me turn to my colleague—we play a very limited role in this waiver process.

Senator LEVIN. All right. Well, can somebody answer that question?

Mr. HOLUM. That's my understanding, yes.

Senator LEVIN. Now, the fact that Congress hasn't acted through all these years with all these notices doesn't mean that we shouldn't act now, and that's the question that we now face. Should we reverse, for instance, the decision to transfer the items that were transferred in 1996? Should Congress now say, the items

which were transferred from the State Department munitions list in 1996 to the Department of Commerce—we didn't do anything then; we had notice; we had an opportunity, but should we do it now? Does national security now, from what we've learned, indicate that we should reverse that decision?

Can we get your judgment on that?

Mr. REINSCH. Mine would be obvious, Senator. I think it would be a bad thing to do. The system works as it is.

Senator LEVIN. All right.

Secretary Lodal.

Mr. LODAL. I think it would be a bad thing to do also. I think it works quite well. I think particularly, with regard to the last thing on your list, which was the 1996 changes—which I might emphasize again involved not only just the transfer, but also some improvements that we very much wanted, such as the requirement for monitoring in all cases, such as the improved process that we've discussed here, such as the ability to have national security considerations in the Department of Commerce actions, such as the prohibitions on using the foreign availability appeal process for the companies—all of those things which were incorporated in that 1996 decision we think strengthened the process.

Senator LEVIN. Secretary Holum.

Mr. HOLUM. Yes, I agree.

Senator LEVIN. So you would recommend against Congress transferring them back by legislation, is that correct?

Mr. HOLUM. I would recommend against that, both because the existing process works well, and frankly, in addition, because we have now budgeted on the basis of that transfer of jurisdiction. We don't have the physical capability to do this now.

Senator LEVIN. Well, we can correct that.

Mr. HOLUM. Yes, sir.

Senator LEVIN. If national security requires that this be transferred back, it can be transferred back, and we can correct the budget issue.

Putting aside that issue, because that's not going to determine the outcome here—obviously, in everyone's view, I hope and believe, national security considerations are going to dominate this issue. We all believe that, I hope.

Mr. HOLUM. That's correct.

Senator LEVIN. The question then is, do national security considerations, from what we now know, require us—or suggest—that we should reverse that 1996 decision and put those items that were on the munitions list back on the munitions list?

Mr. HOLUM. No, I don't believe we should.

Senator LEVIN. All right.

Now, I wrote a letter—if we haven't done this already, we should circulate copies of this letter—I wrote a letter both to the Department of Defense and to the Secretary of State requesting certain information, and I want to go through these letters now with you. We got your answers just yesterday, I believe.

First, the Department of Defense answer. I'm going to read this letter, and then ask you a question, Secretary Lodal, a question about it.

Letter referred to follow:

"Dear Senator Levin:

"I am responding to our letter of June 3, 1998 requesting information regarding DOD's role in the review of commercial communications satellite exports to China. My answers below are keyed to the specific questions in your letter.

"Question (1): For each of the export licenses issued by the Bush and Clinton administrations permitting Chinese launches of U.S. built satellites or satellite parts, including the 1998 export licenses for the Loral-built Chinasat–8 satellite, did the Department of Defense, (a) have an adequate opportunity to review national security concerns prior to the approval of the license and ensure the inclusion of appropriate technology security safeguards in the proposed license? (b) determine that the proposed export license would be consistent with the national security of the United States? (c) support the approval of the proposed export license?

"Answer:"—this is the Department of Defense first—"For those license requests for U.S. built satellites or satellite parts referred to the Department of Defense for review by the State and Commerce Departments since 1990, DOD has had an adequate opportunity to provide recommendations regarding whether the license would be consistent with U.S. national security, whether the license should be approved or not, and whether the license should include safeguards and other conditions. While we are still reviewing relevant records, we are not aware of any license having been issued since 1990 without DOD concurrence. However, the license record will show at least one case where DOD had recommended against export of some satellite parts for which the Department of Commerce ultimately issued a license. In this instance, senior DTSA officials resolved the objection satisfactorily with the Department of Commerce officials and it was approved with DOD's concurrence. The record of DOD's objection was apparently not changed to reflect this outcome. As for the 1998 license requests for the export of the Loral-built Chinasat–8 satellite, DOD conducted a thorough review and recommended approval on all associated licenses referred to DOD by the State and Commerce Departments. Our recommendation was subject to the application of safeguards and other conditions, including requirements for DOD monitoring of the satellite launch and associated technical meetings, and DOD review of technical data prior to its transfer to China.

"Question (2): With respect to the 1998 export licenses for the Loral-built Chinasat–8 satellite, was the Department of Defense aware at the time it was reviewing the proposed license that Loral was under criminal investigation for participating in a post-launch analysis of a failed 1996 launch?

"Answer: DOD was aware of these allegations at the time it was asked to review the export license applications for the 1998 launch of Loral's Chinasat–8 satellite. Those applications were reviewed carefully taking into account all the relevant information available to DOD at that time. DOD's decision to recommend approval of those licenses was based on the facts of those particular cases and on the specific safeguards required by the licenses.

"Question (3): With respect to each transfer by the Bush and Clinton administrations of commercial satellite technology items from the State Department's Munitions List to the Commerce Department's Control List, did the Department of Defense: (a) have an adequate opportunity to evaluate national security concerns prior to the transfer of the commercial satellite technology from one list to another? (b) determine that the proposed transfer would be consistent with the national security of the United States? (c) support the proposed transfer from the munitions list to the Commerce Control List?

"Answer: DOD participated fully in the interagency reviews and supported the final decisions by the Bush administration in 1992 and the Clinton administration in 1996 to transfer commercial communications satellites from the State Department to Commerce Department jurisdiction."

My question to you, Secretary Lodal—this was signed by Dave Tarbell, who is here today, as we have seen, who is the Director of DTSA—my question to you, though, is whether or not—I gather he is under your supervision or in some way subordinate to you. Can you tell us whether or not his letter to me of June 17 is accurate in every respect?

Mr. LODAL. Yes. It seems accurate in every respect to me.

Dave, you signed it only today, so I assume——

I see nothing inaccurate in it.

Senator LEVIN. I know what his answer would be, hopefully, but I wanted to ask you.

Mr. LODAL. It looks exactly correct to me.

Senator LEVIN. Now, a similar letter was written to the State Department, and we have received answers which are very similar. I am not going to take the time to read them, but basically the State Department has said that they supported approval of the export licenses that were referred to the Department of State, "subject to conditions that we required to be placed on the export licenses." In answer to the second question they said the "Department of State was well aware of the Justice Department investigation. In the spring of 1996 the Department of State discovered potential violations by U.S. firms and requested the support of the Department of Justice and other U.S. law enforcement agencies in investigating the matter fully." And they said in response to question three that "The State Department was fully involved in these processes and ultimately supported all three decisions, including the 1996 recommendation to the President. In this respect, a number of specific measures were developed to deal with the concerns identified by the Defense and State Departments regarding the transfer of jurisdiction. These additional measures, approved by the President, formed the basis of State Department concurrence in the transfer of jurisdiction."

Secretary Holum, is that the position of the State Department?

Mr. HOLUM. Yes, it is, and I reviewed this letter before it was sent.

Senator LEVIN. Mr. Chairman, I would ask that both these letters be inserted in the record at this point.[1]

Senator COCHRAN. Without objection, they will be made a part of the record.

Senator LEVIN. And if I have time for just one additional question?

Senator COCHRAN. You go ahead.

Senator LEVIN. I would just ask this one question. This has to do with this 5-day issue that has been raised by Chairman Thompson.

We have a two-track process that I've outlined on that chart, with an initial decision, and if there is a disagreement, then an operating committee votes. The majority there determines, but any member who disagrees with that decision then has three additional appeals.

First of all, has there been a disagreement of that time at the operating committee relative to any of these satellite licenses?

Mr. REINSCH. No.

Senator LEVIN. If there had been a disagreement, would the fact that there would only be 5 days to appeal it be a deterrent to expressing that disagreement?

Mr. REINSCH. In my judgment, no, Senator Levin. As a practical matter, the system—and by the way, the upper levels of this system have been in existence for more than 20 years; this didn't spring full-blown from somebody's brain in 1996—in fact, the system is a collegial one. We work together. The fact that 95 percent of our licenses are solved by consensus suggests that if someone

[1] The letters from DTSA and Department of State appears in the Appendix on page 105 and 108.

lets us know that they are going to want to escalate, the train slows down to make sure that they have a chance to escalate. This is not an arbitrary system. If Mr. Tarbell calls up one of my office directors or the operating committee, or calls me up, which has been known to happen—not to complain about something, but on other matters—and says, "We have a problem here and we want to escalate but the assistant secretary is out of town," we'll wait. This is not complicated.

Senator LEVIN. And finally, on that chart, on the waiver issue which is the second additional step where it must go to the President on all of these Chinese satellites since Tiananmen Square, the National Security Council must make a recommendation before there is a waiver. Is that correct?

Mr. HOLUM. That's correct.

Senator LEVIN. Now, the Chairman has written a letter—we have jointly written a letter, I believe—to the National Security Council asking them whether their review process for that waiver is the same, whether or not the waiver comes from the Department of Commerce or whether or not it comes from the State Department. And we have not received their answer, I don't believe, so we will have to wait for their answer on that question.

But do any of you know whether or not the National Security Council process—which, again, is a protective device for national security and must be signed off on by the President if they recommend it—do any of you know whether or not there is any difference in the National Security Council review process, whether or not the license recommendation comes originally from the Department of Commerce or comes originally from the State Department?

Mr. REINSCH. To my knowledge, they are the same. The originator doesn't make any difference.

Senator LEVIN. Do either of you have any knowledge of that?

Mr. LODAL. No.

Senator LEVIN. You don't know? Secretary Holum.

Mr. HOLUM. No. I'm assuming it would be the same, because the issue is similar, notwithstanding the source.

Mr. REINSCH. I would also observe, Senator Levin, there are no time limits on the waiver process, either. The President can take as long as he wants to make up his mind.

Senator LEVIN. He's not bound by the 5-day rule?

Mr. REINSCH. Well, there is no rule, and there is no rule for the NSC, either.

Senator LEVIN. Thank you, Mr. Chairman.

Senator COCHRAN. Thank you, Senator.

During Senator Thompson's questions and the answers that were given to him about this process, you were all talking about a satellite license and the approval of a satellite license, and this was in connection with whether or not the Department of Defense had ever been overruled or had ever failed to agree on the issuance of a satellite license. But when you get down to the basics, there are a lot of other issues that are discussed and compromised in this process, as you point out. Specifically, there are conditions that are discussed, whether or not to have monitors, whether or not to have a technology control plan.

Has DTSA ever been overruled on any of those conditions?

Mr. LODAL. Let me emphasize—I'll ask Dave to answer this specific question—but let me emphasize once again that there is no debate on whether or not to have monitors or whether or not to have the technology control plan. Those are required in every instance since the 1996 decision. As I described, in this interim period after the initial 1992 decision and before 1996——

Senator COCHRAN. When you say "having monitors," you're talking about having monitors at the launch, right? You're not having monitors at every stage of this process. You're not talking about having monitors as they had under the munitions list that was controlled by State, are you?

Mr. LODAL. No, I am talking about that.

Senator COCHRAN. Exactly the same kind of monitors, in all instances?

Mr. LODAL. Yes, in all instances.

Senator COCHRAN. OK.

Mr. LODAL. Exactly. All conversations, for example; all documents passed have to be approved by——

Senator COCHRAN. All discussions that take place on technical subjects between U.S. companies and foreign companies?

Mr. LODAL. That's correct.

Senator COCHRAN. OK.

Mr. LODAL. So there is no debate about whether to have them.

Now, the exact plan for how they're going to carry it out and how they're going to do the transportation and all that, can differ, I presume, but let me ask Mr. Tarbell to speak to that.

Mr. TARBELL. When we have a monitoring requirement that is placed on a license, that monitoring requirement is placed on the exporter, and then we have a relationship with the exporter. The relationship is in several different manners. That relationship is, they have to provide us with the technology transfer control plan. That plan, we work with them on; there are several iterations of it. They can't proceed without our approval of that plan, and that plan incorporates all of the provisions that we've talked about—the transportation plan, the operational security plan at the launch site, and requirements for us to be there when they are engaged in technical meetings with the launch service provider in China, or in the United States with the Chinese launch service provider.

In addition, technical data that is covered by the license has to come through my organization for review prior to its transfer to the Chinese launch service provider so that we can ensure that there is no launch vehicle technology associated with that. And that's the current system, as it now exists today, and that's the way it is on all the licenses that have been approved since the 1996 change.

Senator COCHRAN. Let me ask Secretary Reinsch about the briefing that was given to our staff on May 29. Again, Jim Lewis of your staff said that it is now becoming a requirement to have DOD monitors and a technology transfer control plan for all launches in China.

What has caused your now moving toward making these safeguards a requirement? Why didn't you think these safeguards were necessary from the earliest days of this new process?

Mr. REINSCH. Well, let me say two things about that.

First, the impetus for making the requirements as parallel as possible came in the process which Mr. Holum and Mr. Lodal and I have described, which was the transfer of jurisdiction process in 1996. And in the post-1996 period is when these go into effect.

It is important, though, to keep in mind that in looking back at the 1992 and 1993 transfer of some satellites to the Department of Commerce pursuant to the process that Mr. Holum described, in that process it was defined very clearly in regulation, and it is still defined very clearly in regulation, what kind of technology the Commerce Department is authorized to license for one of these exports, and both the State and Commerce Departments have published regulations that specify this, and it is what is known as form, fit, and function technology, the technology that relates to the mating of the satellite to the rocket.

A satellite rocket—this is what we license. Anything that has to do with this, they license it.

Senator COCHRAN. You're referring to the missile, for the record? The record can't see what you're doing.

Mr. REINSCH. I'm sorry. I just wanted to illustrate the difference between the satellite and the rocket.

When we are in a situation in which either we determine—"we" meaning the agencies, not specifically the Commerce Department—or the applicant determines that in order to have a successful launch he needs to transfer more technology to the launch provider than the form, fit, and function information that I described, then he is required to go to the State Department to get an additional license for that additional technology.

I would also say in passing that our licenses also specifically include a requirement that in the event of launch failure, the exporter must go to the State Department and obtain an additional license to address any kind of technology transfer that would go on in the aftermath of the launch failure.

As Mr. Lodal pointed out in his testimony, prior to 1996 there were some launches in which there was no technology involved in the export other than that technology of form, fit, and function, which we are authorized to license. In those cases, those licenses were reviewed by the State Department and the Defense Department just like all the other ones, but in those cases there was no additional State Department license required. There was no TAA required because there was no technology beyond that which we could license required. And in those cases, prior to 1996, our requirements might have been slightly different.

Senator COCHRAN. Thank you.

We have a vote on the Floor of the Senate on the Energy and Water Appropriations bill, the final passage, so I'm going to yield to Senator Collins for such time as she would like to consume. I'm going to go over there and vote and leave this under her chairmanship, and I will return.

Senator COLLINS [presiding]. Thank you, Mr. Chairman.

Secretary Reinsch, you had described the current export control process one in which each department brings a different perspective to the table: the Department of Defense brings national security concerns, and the State Department raises foreign policy concerns, and so forth.

In your view, what does the Department of Commerce bring to this table?

Mr. REINSCH. Well, first of all, we all bring all the concerns to the table. I would say that the first thing that the Commerce Department always looks at is national security. The other thing we bring to the table is commercial considerations. These are dual-use items. If you think about some of the non-satellite items I mentioned, you're talking about large volume and billions of dollars that are involved, not to mention jobs. We think these are relevant considerations that need to be weighed, along with the other factors.

Senator COLLINS. Since the Commerce Department does not traditionally have a national security role, isn't the primary reason that you're involved in this process to bring the commercial perspective to the table? I'm not necessarily saying this in any critical way, but isn't that why you are involved in the process? Otherwise why wouldn't it just be the Department of Defense and the Department of State?

Mr. REINSCH. Well, first of all, we view ourselves as an atypical part of the Commerce Department, if you will. We operate—most of my licensing officials operate in secure space. Everybody in the Bureau of Export Administration has a security clearance, which is anomalous in the Commerce Department. We operate sort of as a—we clearly are within the Department; I don't want to suggest that we're independent, but we operate in some ways that the other parts of the Department don't operate.

But at the same time, you make a valid point. The history of this, as I said, going back 40 years—almost 50 years now—is that what we're talking about here are dual-use licenses, licenses for commercial items that, by and large, have civil application but may have military application. In the mid-1980's this Bureau was processing 120,000 to 150,000 licenses per year, many of which had direct commercial consequences—not so much to the nature of our decision; obviously if we said no, it would have commercial consequences because they couldn't sell it. But the timing has commercial consequences. If an exporter cannot get an efficient answer from the government, he loses. And it has been successive administrations' view that the Commerce Department is best equipped to run a process that provides timely responses. The process from the beginning has involved other agencies; it was only in this administration that we gave them the right to see anything they wanted to see. Our statute, incidentally, does not give them the right to see everything that they want.

Senator COLLINS. I understand the important role that the Department of Commerce plays in bringing commercial concerns to the table, and I think it's a completely legitimate role. But since we all agree that national security has to be the No. 1 concern, it seems strange to me to have the authority to run the whole process vested in a department the No. 1 concern of which, the mission of the department, is not national security.

Mr. REINSCH. Well, my suggestion would be—I'd like to say that it's vested in our department because we're good at running this process. We're good at interfacing with exporters. Oftentimes what we have discovered is that an application, a piece of paper, doesn't

tell the whole story. We need to put people together. We need to get the Navy's engineers together with our engineers to have a discussion. We are good at putting those things together.

What you might want to do, if you want to pursue this, is talk to exporters, in your State or elsewhere, who have experience with our system and who have experience with the State system for munitions, and ask them what the differences are and ask them how they feel about it, and ask them what kind of system they think is necessary for them to do legitimate business where there aren't any national security implications.

Senator COLLINS. Secretary Holum, could I ask you to pull out the letter to Senator Levin again, if you have that in front of you, the June 17 letter? Do you have that?

Mr. HOLUM. Yes, I have it.

Senator COLLINS. I just want to follow up on one of the answers that you gave. It's on page 1, where Senator Levin asked you for each export license or waiver issued regarding the Chinese launches of U.S.-built satellites, and then asked you whether the State Department supported approval.

Your answer seems to me to be very carefully worded, and I just want to make sure that I understand your answer fully. Your answer is that "The Department of State supported approval of those export licenses that were referred to the Department of State and were ultimately approved, subject to conditions that we required be placed on the export licenses," right?

Mr. HOLUM. Yes.

Senator COLLINS. Just to make sure I understand the process, were there any export licenses that weren't referred to you?

Mr. HOLUM. Not that I'm aware of.

Senator COLLINS. Were there any where there was a disagreement or resistance to conditions that the Department of State wanted placed on the licenses?

Mr. HOLUM. No. Again, not that I'm aware of.

Senator COLLINS. Could you identify yourself for the record?

Mr. BARKER. John Barker, Deputy Assistant Secretary for Export Controls.

In response to your question, I was probably one of the people responsible for the wording of that letter. One of the things that we do, as you can appreciate, on these licenses—these things are very complicated, and we debate and argue conditions back and forth. We oftentimes ask for conditions to be placed on the licenses. We are not aware of any problems in that particular process.

We are also going back through our files to make sure that all of the conditions that we asked to be placed on licenses truly were placed on licenses. Again, I'm not aware of any problems, but we're going back through our files just to make certain that everything was done correctly.

Senator COLLINS. That was going to be my next question because you say that you're still reviewing your files. I assume that you will provide information to this Subcommittee if your review finds that there were cases where you either had an inadequate opportunity to review, or there was disagreement, or there was a condition that you asked for that was not ultimately attached?

Mr. HOLUM. We will do so, yes.

Senator COLLINS. Thank you. Senator Levin.

Senator LEVIN. Thank you.

Two quick questions. The GAO identified three safeguards in the licensing process that are mandatory under the State Department process, but which they said were optional for the Commerce Department process: Technology transfer plans, DOD monitors, and technical assistance agreements. Were they right, or are they mandatory for both?

Mr. LODAL. They are mandatory under our 1996 procedures.

Senator COLLINS. Excuse me. Could I just interject?

Prior to 1996, were they mandatory?

Mr. LODAL. No, they were not. I know it's a little bit confusing; frankly, it took us a little while to sort it out.

Senator LEVIN. I meant since 1996, and the Executive Order of 1995, plus the action taken——

Mr. LODAL. The Executive Order of 1995, and then the elaboration——

Senator LEVIN. That's exactly right, but GAO was referring to current. They weren't talking about pre-1996. They were talking about post-1996, and what you're saying is that they're wrong?

Mr. REINSCH. Yes.

Senator LEVIN. Next, do you believe, any of you, that there has been any instance in which a launch by China, or any other foreign nation, of a U.S. commercial satellite has resulted in harm to U.S. national security since the beginning of the Reagan decision, through President Bush and up to the present time?

Mr. HOLUM. Setting aside the investigation that is currently underway regarding post-launch activities, we do not believe that any launch of a commercial satellite under this policy since 1988 has resulted in a transfer of significant technology or assistance to the Chinese, either in space launch vehicle capabilities or missile capabilities.

Senator LEVIN. Do you agree with that, Secretary Reinsch?

Mr. REINSCH. Yes, Senator Levin.

Senator LEVIN. Secretary Lodal, do you agree?

Mr. LODAL. I agree. We're not aware of any situation in which such transfer harmed U.S. security.

Senator LEVIN. Madam Chairman, thank you.

Senator COLLINS. We will take a brief recess so that Senator Levin and I can vote.

[Recess.]

Senator COCHRAN [presiding]. The Subcommittee will please come to order.

I have just been advised that the Senate is now going to turn to the consideration of the Agriculture Appropriations bill on the Floor of the Senate, and I'm the manager of the bill. It appears, therefore, that I will not be able to continue to chair this hearing today, and rather than to presume that some other Senator might want to have that pleasure, I'm going to suggest that we recess the hearing and that we reconvene the hearing at a later date at the convenience of all Senators and our panel.

There are some other questions that I would like to ask, specifically about the process and the implications of the changes that have been made in export control policies and procedures over the

last few years in this administration. We have information, for example, from some of the companies that have been involved in satellite exports, telling us that there have been ambiguities, there have been uncertainties, and we were going to display some charts showing some of the differences that had occurred as a practical matter between the processes and the results of the processes in this administration as compared with past administrations. And we would have had an opportunity to discuss those; there may very well be answers to some of our questions and concerns, and I'm sure there are going to be responses—whether they will be answers or not to alleviate our concerns, remains to be seen.

But let me just say how much I appreciate the cooperation of our panel today, your being here and presenting evidence and information that has been very helpful to the Subcommittee. These are serious questions, as I think the attendance and participation of other Senators has indicated. We have a lot of interest in making sure that whatever policies and procedures we have in place protect our national security, as well as promote our other interests, which are legitimate and very real and very important as well.

Having said that, let me announce, then, that this hearing will stand in recess and we will reconvene at another date.

[Whereupon, at 4:15 p.m., the Subcommittee was recessed, to reconvene at the call of the Chair.]

THE ADEQUACY OF COMMERCE DEPARTMENT SATELLITE EXPORT CONTROLS

WEDNESDAY, JULY 8, 1998

U.S. SENATE,
SUBCOMMITTEE ON INTERNATIONAL SECURITY,
PROLIFERATION, AND FEDERAL SERVICES,
OF THE COMMITTEE ON GOVERNMENTAL AFFAIRS
Washington, DC.

The Subcommittee met, pursuant to recess, at 2 p.m. in room SD–342, Senate Dirksen Building, Hon. Thad Cochran, Chairman of the Subcommittee, presiding.

Present: Senators Cochran, Levin, Durbin, and Cleland.

OPENING STATEMENT OF SENATOR COCHRAN

Senator COCHRAN. The Subcommittee will please come to order.

The Subcommittee meets today to continue a hearing which we began on June 18, reviewing the export controls that are administered by the Departments of Commerce, State, and Defense, in connection with the exporting of dual-use technologies and equipment that can be used for civilian purposes as well as military purposes.

We are pleased to have returning to testify today two of the witnesses who were at the earlier hearing, Secretary Reinsch and Secretary Holum, representing the Departments of Commerce and State.

Because the subject matter relates to matters of national security, I am going to exercise my prerogative as Chair of the Subcommittee to administer oaths to the witnesses who will be testifying today. And I want to say that I make no judgment, in doing that, on the veracity of the witnesses, but simply to underscore the seriousness of these issues.

So if you will please stand and raise your right hand.

Do you solemnly swear that the testimony you will give before this Subcommittee will be the truth, the whole truth, and nothing but the truth, so help you, God?

[All witnesses answer in the affirmative.]

Senator COCHRAN. Thank you. You may be seated.

In our last hearing we were talking in some detail about the specifics of the licensing process, led by the Department of Commerce, for exporting satellite and other technologies, particularly with respect to the launching of U.S.-made satellites on Chinese rockets. And obviously there had been a period of time when this process and the procedures had undergone some changes. Witnesses talked about the differences, for example, between the Bush Administra-

tion rules and procedures and the Clinton Administration rules, and an Executive Order that was issued by the Clinton Administration that substantially modified these procedures.

I would like, if we could, to put this all in perspective, and as a windup for the hearing, to call on Secretary Holum to briefly describe that as background, if he can, so that we may then proceed to talk about some of the technology safeguards that are in place now, the specifics, and the adequacy of these safeguards to protect American security interests.

Secretary Holum, could you do that for us in a brief statement?

TESTIMONY OF HON. JOHN D. HOLUM, ACTING UNDER SECRETARY FOR ARMS CONTROL AND INTERNATIONAL SECURITY AFFAIRS, U.S DEPARTMENT OF STATE

Mr. HOLUM. I will. Do you want me to go back to 1993?

Senator COCHRAN. That would be a good starting point.

Mr. HOLUM. Basically, the Bush Administration had begun the process of transferring part of the jurisdiction over commercial satellite launches from the Department of State to the Department of Commerce. The Clinton Administration, in 1993, came into office while that process was underway, and after some further review adopted intact what the Bush Administration had recommended. That transferred a substantial volume of satellite launches from the State Department to the Department of Commerce. It reserved to the State Department a number of technologies associated with space launches, nine separate categories. In 1995, a further process was undertaken, initiated by Secretary Christopher, and received recommendations from an interagency group that further narrowed—but did not eliminate—the State Department's jurisdiction.

That adjustment was not agreed to by the Department of Commerce, which exercised its right of appeal to the President. That led, in turn, to a further interagency process and an outcome under which Secretary Christopher and the Department of State, as well as all other agencies, concurred in the transfer of most remaining commercial satellite-related transactions to the Department of Commerce.

Senator COCHRAN. Could I interrupt and just ask one question for clarification at that point?

When the State Department had the responsibility for issuing the licenses, the commodities involved—the equipment, the technologies involved—were on a so-called Munitions List, a State Department Munitions List.

Mr. HOLUM. Right.

Senator COCHRAN. Did that Munitions List cease to exist after the introduction of the new procedures by the Clinton Administration?

Mr. HOLUM. No, the list continues to exist. The difference, as I understand it, is that under the Commerce Department rule, under this new procedure which was approved by all the agencies, if those specified items that previously had required a license from the Department of State are imbedded in the satellite so that there is no access to them by the customer, and they are launched into space, then they do not require a State Department license. But if they

were to be sold separately, they would still require a license from the Department of State.

In addition, anything that would be termed "Defense services"—for example, services related to the launch vehicle—would require a license from the Department of State and would be very unlikely, in the case of China, to be granted.

Senator COCHRAN. One other thing that I recall hearing, and it may have been from the last hearing, was that the Department of Defense was called upon under some circumstances to provide monitors who would be present at various stages of the transaction in the launch of a satellite, for example.

Mr. HOLUM. That's correct.

Senator COCHRAN. And I am also further told that when the State Department had the responsibility for issuing these licenses, that DOD monitors were required in each instance when a satellite was being launched by China. Is that your recollection?

Mr. HOLUM. That's correct, and that's also the case now. There was a period between the 1993 decision and the 1995 decision in which some launches did not have Department of Defense monitors, but under the current system—even under Commerce Department licenses—the launches require Defense Department monitors.

Senator COCHRAN. You may be able to help us to understand this, but I'm going to ask if our staff will put up a couple of charts we have that are based on information provided by the industry which show that every license issued by the State Department for satellite launches in China required a full range of technology safeguards, and these are all listed here, one of which is a "TAA" from the State Department. Could you describe for us what a TAA from the State Department is?[1]

Mr. HOLUM. Yes. That's a Technology Assistance Agreement, and it basically is the license covering the technical assistance related to the launch.

Senator COCHRAN. And the TTCP is Technology Transfer Control Plan?

Mr. HOLUM. Right.

Senator COCHRAN. A Technology Transfer Control Plan.

Mr. HOLUM. That's what the industry provides to give the government assurance that the technology will be protected.

Senator COCHRAN. And the DOD monitors you have mentioned, as being required up through—or until—1993.

The chart on the right is an example of requirements that were imposed by the Commerce Department when it assumed responsibilities—I believe in January 1994. And the difference is that in certain transactions, in terms of restrictions or requirements for monitors, the Technology Transfer Control Plan and the Technology Assistance Agreement—it seems that there were several instances when there was no requirement for some of these safeguards when satellites were launched in China.

Could you give us your impression, Secretary Holum, about whether or not this represents a substantial difference, as a practical matter, in the licensing and the safeguarding of technology

[1] The charts referred to appear in the Appendix on page 113–114.

transfers under the Commerce Department as compared to the time when the State Department had the principal responsibility?

Mr. HOLUM. Well, Senator, I would have to cross-check your records against our records. This is the first time I have seen this chart, so it is hard to comment on it intelligently and comprehensively. But as I said with respect to monitors specifically, there was a period of time after the transfer to the Commerce Department when some of these requirements were not included.

Senator COCHRAN. Well, let me turn now to Secretary Reinsch, and specifically ask about the Hughes Corporation licenses that were issued by the State Department. Over here on the lefthand side of the State Department chart there is an APSTAR II Model 376 satellite, the next to the last line on that chart, and it shows the license was issued April 5, 1993.

My question is whether or not the Department of Commerce issued another, different export license for a newer and more advanced satellite that Hughes launched, which was an APSTAR Model 601, and whether the same kinds of restraints were imposed on the APSTAR II Model 601 as were imposed on the APSTAR II Model 376, and if they were different, why were they different?

TESTIMONY OF HON. WILLIAM REINSCH, UNDER SECRETARY FOR EXPORT ADMINISTRATION, U.S. DEPARTMENT OF COMMERCE

Mr. REINSCH. Well, let me say first, Mr. Chairman, that despite our conversation 2 weeks ago and your assurances that your staff would provide these charts to us in advance, this is the first time that I have been able to review them, and I would like to have the opportunity to review them in some detail.

Clearly, from looking at them, I would note just in passing that I think there are some differences of fact, at least with respect to some points, which we can get into if you want, just at first glance.

But looking at them, I would simply observe that the second item on the Commerce Department chart is a Hughes APSTAR license, which was granted for a different model number. Whether it's a more advanced one or not is something that I would have to consult with our technical people about. It's obviously a different model.

The license, as with all of ours, as I've testified—we've all testified on the previous occasion—was approved by all three of the agencies in question.

Senator COCHRAN. Is it correct to say that even though the State Department had granted a technical license and had required a Technology Transfer Control Plan and monitors for the APSTAR II, because of the missile proliferation sanctions, that that transfer was held up, and then the Commerce Department licensed the Model 601 APSTAR II, requiring no Technology Assistance Agreement, no Technology Transfer Control Plan, and no DOD monitors? My question is, why would that be possible?

Mr. REINSCH. It was possible because the company representative—I can speak with respect to our case, not with respect to the State Department case—the company representative and the agencies agreed initially in the license that the technology that would be transferred as part of the launch was within the form, fit, and

function limitations that the Commerce Department was permitted to license at that time, and that the company did not propose to transfer technology that went beyond that; and that, therefore, other licenses were not required from other agencies. And some of the attendant features were not required, as well.

Now, the license in question did not, in contrast to some, require DOD monitors. The technology agreement that we have bilaterally with the Chinese requires both the Chinese and the company to accept a U.S. presence throughout the entire launch cycle, if you will. So the monitors would have been accepted, had they gone.

I think the Defense Department has testified here, and certainly in the House, that there were three circumstances—and I think you have five here, which is one thing we should explore when we have a chance to review these in more detail—but Defense has testified that there were three launches, according to their records, where there were no monitors, not five. One of those cases is the Hughes APSTAR II that you are referring to.

Senator COCHRAN. One of the officials from Hughes, I assume, will be worked into one of our later hearings, and we can confirm this with testimony from the company. But we were advised that this 601 model that was licensed in 1994 is larger and more powerful, and that there was no real explanation for why there weren't any technology safeguards for the newer and more powerful satellite.

Mr. REINSCH. Mr. Chairman, the technology safeguards in question relate to the technology that would be transferred—that would not be transferred, or would be—to the Chinese, that is part of arranging for the launch. Most of that technology has to do with the interface between the satellite and the launch vehicle itself.

The sophistication of the satellite and the characteristics of the satellite are not really at issue in terms of the technology safeguards.

Senator COCHRAN. Let me go to another subject, and this will be my final issue to explore with you, and I will then be glad to yield to my colleagues for any questions that they have.

When the APSTAR II launch failed in January 1995, it is my understanding that the Commerce Department authorized Hughes to conduct a launch failure analysis. As a Defense service, which was described by Secretary Holum as something that at one time required a license from the State Department, was this considered a service that should be licensed by the State Department? Or did the Commerce Department have the authority to issue a license for this purpose to Hughes?

Mr. REINSCH. Following the launch failure, Mr. Chairman, as you noted, Hughes undertook an analysis in order to satisfy insurance requirements, which they provided the Commerce Department. The Commerce Department, at that time, determined that the analysis did not contain information that exceeded the scope of the approved the Commerce Department license. The Commerce Department authorized release of the analysis, which subsequently was provided to a consortium of western insurance companies and to the Chinese launch service provider.

Upon further review, while we do not believe that the analysis in question contained information specific to the launch vehicle or

the satellite, and that its release to the insurance companies and to the Chinese was appropriate and without risk to national security, we have concluded that the better course of action would have been to refer it to the State Department for review.

Senator COCHRAN. Is it now the current practice in licenses to state explicitly that launch failure analysis investigations can proceed only pursuant to a State Department license?

Mr. REINSCH. Yes, it is.

Senator COCHRAN. And the Commerce Department does not now have the authority to issue a permit for the conduct of a launch failure analysis, is that correct?

Mr. REINSCH. We built into our licenses a condition that says that in the event of that happening, they have to go to the State Department.

Senator COCHRAN. If the Commerce Department does not now have this authority, what authority did it have when it permitted the analysis investigation to proceed on APSTAR II in 1995?

Mr. REINSCH. The licensing officer at the time made the judgment that the information that was contained in the analysis did not exceed the terms of what was authorized by the license that had been granted. So accordingly he authorized its release.

Senator COCHRAN. Did any Commerce Department official, to your knowledge, review the APSTAR II launch failure analysis report before Hughes provided it to Chinese officials?

Mr. REINSCH. Yes, Mr. Chairman, that's exactly the point I'm making. They gave it to us in advance and asked us for permission to release it. We provided that permission.

Senator COCHRAN. Was any other department given the opportunity to review it? Or were they consulted in any way before the Department of Commerce allowed it to be transferred to the Chinese?

Mr. REINSCH. No, sir.

Senator COCHRAN. Has any copy of the report yet been provided to other agencies or departments, specifically to the Department of Defense?

Mr. REINSCH. Yes.

Senator COCHRAN. When did this occur?

Mr. REINSCH. Today.

Senator COCHRAN. I want to ask you if you have been directed by anyone in the administration to turn that report over to the Department of Defense, and if so, who was it who directed you to do that?

Mr. REINSCH. We weren't directed. We were happy to turn it over. We needed to consult with the Justice Department to determine whether or not they had a concern about that because, you will recall, there were some concerns expressed with respect to other documents with respect to a different launch failure. So the Justice Department was consulted and they had no objection. We were happy to turn the document over.

I would note also, Mr. Chairman, that I believe the document is encompassed in the request from Senator Lott and Senator Thompson, so it either has been or will be provided to this Subcommittee as well.

Senator COCHRAN. Isn't it a fact that the National Security Council staff directed you just yesterday to provide the report to the Department of Defense for its analysis?

Mr. REINSCH. Well, I take issue, Mr. Chairman, with the term "directed." We had a discussion; the consensus of all the agencies, including my own, was that that was the right thing to do, and we were happy to do it. We have no objection; we didn't have any objection; we didn't have any objection in the past. We did want to consult with the Justice Department.

Senator COCHRAN. I have no other questions of the witnesses.

Senator Levin.

OPENING STATEMENT OF SENATOR LEVIN [1]

Senator LEVIN. Thank you, Mr. Chairman.

Am I correct that the Department of Defense performs the same function for both State and Commerce Department's license applications in determining whether a proposed license adequately protects the U.S. national security?

Mr. REINSCH. That's the advice they give us. I'll have to defer to Mr. Holum.

Mr. HOLUM. Yes. We rely on the Department of Defense for national security determinations. That might be better put to Mr. Miller.

Senator LEVIN. Well, we will, but you rely on them also?

Mr. HOLUM. Yes. They are part of our process, and currently, as I think I noted in the previous hearing, some 95 percent of our licenses are referred to them for review.

Senator LEVIN. In the last hearing that we had on this subject, we wanted to know more about the waiver process that was put into place after Tiananmen Square, the process that is in place for approving satellite exports to China, and particularly our interest was whether the National Security Council analysis is the same, if the licensing agency is the State or the Commerce Department. And so the Chairman and I sent a letter to the National Security Council asking that question, because this is a very technical and a very complicated issue involving many considerations. When we look at whether or not the licensing should be with the Commerce Department, should be with the State Department, should go back to the years before President Reagan, indeed, when we didn't have satellites being transferred at all to be shot up in Chinese rockets, whether we ought to go back to a blended approach where some satellites were on the State Department list and some satellites were on the Commerce Department list. Whether we ought to make any changes or not, it seems to me, is a relevant issue and we ought to address that issue. Congress has had many, many opportunities to make these changes, had it so chosen, in the last few years. We've been given notices of these launches, of these transfers, and have taken no action whatsoever. We've been given notice of the transfer of satellites from the State Department to the Commerce Department and took no action whatsoever, but nonetheless it is still relevant whether or not Congress should act in this area.

[1] The prepared statement of Senator Levin appears in the Appendix on page 111.

But whatever conclusion we reach, we still have a waiver process in place as it relates to satellites which are going to be using Chinese rockets, and that waiver process has been in place since Tiananmen Square. And what's critically important to us is, since we have that backup waiver process which applies whether or not a license came through the State Department or through the Commerce Department, is the waiver process the same regardless of whether the license was a Commerce Department-originated license or a State Department-originated license?

So we wrote the NSC a letter, asking them that question. This is what Mr. Berger's response was to the Chairman and myself; I think we both got the same letter. I will ask that the letter—which is addressed to the Chairman—be put in the record.[1]

Senator COCHRAN. Without objection, it is so ordered.

Senator LEVIN. Here's what Mr. Berger says: "Once the waiver recommendation reaches the National Security Council staff"—again, there cannot be the use of a Chinese rocket without a waiver, is that correct?

Mr. REINSCH. That's correct.

Mr. HOLUM. That's correct.

Senator LEVIN. Once there is a recommendation that reaches the National Security Council staff, "the process followed for granting the waiver is the same, regardless of which agency recommended the waiver, the State Department or the Commerce Department. The national interest waiver standard"—I am now continuing this letter—"requires that the President take into account a broad range of interests. The most important interest is U.S. national security. The National Security Council staff confirms that these interests have been addressed in the course of the Defense and State Department's review of the license application. This includes consideration of how the proposed satellite export will compliment our ongoing efforts to encourage more responsible Chinese nonproliferation behavior. The President also considers foreign policy interests affected by the satellite project, such as promoting more open lines of communication to the Chinese people and advancing our policy of engagement with China. Finally, the U.S. economic interest in the project is considered; for example, whether granting the waiver will support the competitiveness of the U.S. commercial satellite and telecommunications industries."

Now, is that description consistent with your experience? We don't have Mr. Berger here, we have his letter, so now I will ask you two, is that description by the National Security Advisor, Mr. Berger, consistent with your experience?

Mr. Holum.

Mr. HOLUM. Yes, it is.

Senator LEVIN. Mr. Reinsch.

Mr. REINSCH. As far as I know, yes, Senator.

Senator LEVIN. All right.

I just want to ask you a few questions about who owns these satellites.

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[1] The letter from NSC to Senator Cochran, dated June 22, 1998, appears in the Appendix on page 130.

Does the ownership of the satellite transfer—change—before that satellite is in orbit?

Mr. REINSCH. Normally, ownership transfers after it is successfully placed into orbit.

Senator LEVIN. So the owner of the satellite—let's say the Chinese own a satellite—that ownership does not occur, as far as you know, until the satellite is successfully placed into orbit?

Mr. REINSCH. And operating, yes.

Senator LEVIN. And operating?

Mr. REINSCH. Yes.

Senator LEVIN. And until then, the ownership remains with whoever the producer of the satellite was? Is that correct?

Mr. REINSCH. As I understand it, yes.

Senator LEVIN. So the physical possession of the satellite remains in the producer of the satellite while it is on the ground, is that correct?

Mr. REINSCH. Yes.

Let me say, Senator, that the parties could negotiate whatever terms they want, but the terms that you have just described are the ones that, as far as we know, are generally those that are negotiated.

Senator LEVIN. Now, prior to the President's Executive Order of 1996, as I understand it, DOD monitors were required in some cases, and in other cases, not, is that correct, depending on whether or not the satellite was on the Munitions List and had certain features?

Mr. REINSCH. Well, Senator Levin, it's a bit more complicated than that. You can see, even from this chart, that there were a number of circumstances in which monitors attended licenses launched by the Commerce Department, so it would not be correct simply to say that the Commerce Department didn't require monitors and the State Department did. In a number of cases we required monitors, too. It depended on the license, which had a lot to do with both the time—as things have moved on, what we have tried very hard to do and have virtually done now in the post-1996 period, is develop standard conditions that would be applied in every case so that we don't have to go through this negotiation every time.

Generally speaking, what the Commerce Department did in the early days was to accept the license conditions that were requested by the other agencies. Sometimes those conditions were more strenuous than other times, or more onerous.

Senator LEVIN. Since the Executive Order of 1996, however, is it not true that DOD monitors have been present with every launch?

Mr. REINSCH. That's correct, yes.

Senator LEVIN. So the Executive Order tightened up the controls in terms of requiring a monitor at every launch, whereas before that Executive Order there were some launches where monitors were present or required, and in some cases they were not. Is that correct?

Mr. REINSCH. That's exactly correct, Senator Levin. Our view is that what the President did in 1996, he substantially improved the process, tightened it up. In fact, it was those tightenings and changes that permitted all three of the agencies to agree on trans-

fer, because the State Department and the Department of Defense were satisfied that adequate safeguards were being put in place.

Senator LEVIN. Mr. Chairman, the only other request that I have at this point is that we do give these witnesses an opportunity to review the charts, which apparently they were denied an opportunity to review prior to the hearing—despite their request, as I understand their testimony—and that they then give us any corrections that they might have for the record so that we could give them the opportunity to review the specifics of what looks like a pretty complicated chart. So I would make that request, that they be given that opportunity.

Senator COCHRAN. Without objection, that will be done.

Senator LEVIN. Thank you, Mr. Chairman.

Mr. REINSCH. May I ask, Senator, that we ask the Defense Department to do that as well, since the last column really is theirs?

Senator COCHRAN. We will ask the Defense Department, as well.

Mr. REINSCH. Thank you.

Senator COCHRAN. Senator Cleland, Senator Levin has concluded his questions and I am happy to yield to you.

OPENING STATEMENT OF SENATOR CLELAND

Senator CLELAND. Thank you very much, Mr. Chairman.

Thank you all, gentlemen, for being here today and thank you for helping us in better understanding some of these procedures.

Secretary Holum, I understand the House has already passed amendments to the fiscal year 1999 Defense authorization bill to ban the launch of U.S.-built satellites on Chinese rockets. I gather you would be opposed to that posture, I guess on the basis that it violates our policy of engagement, which I think the President articulated very well when he was there in China.

Is there anything else you would like to say along those particular lines about that particular House action?

Mr. HOLUM. I would, Senator, and I would focus in particular on our efforts to deal with what I take to be—and accept to be—the dominant interest of this Subcommittee in pursuing these hearings, and that is the prevention of proliferation of weapons of mass destruction, and particularly missile technology. This is something on which there is no argument among us; we may have some differences of tactics and methods, but this is a very high priority interest of the administration, as it is of this Subcommittee.

One of the efforts that I and many of us have been heavily involved in over the last 5 or 6 years has been to engage the Chinese in an effort to restrict their exports of missile technology, which is a very large problem. China is indispensable to the solution of the missile proliferation problem. We have made some headway; we have made that through a combination of methods, including diplomacy, including sanctions in 1993, including the possibility of sanctions throughout this period, but also through engagement.

It is my strong belief that this satellite launch possibility creates incentives and holds the possibility of our making further progress with China. If we don't have China's cooperation, then we can't have a fully successful effort against missile proliferation. We need their cooperation, and I think we're making considerable headway to get it. They have basically adopted the Missile Technology Con-

trol Regime rules on exporting missiles; in fact, they have gone beyond the MTCR rules on whole missiles. We have no reason to believe that since 1994, when they made that commitment, that they have violated that commitment. They have assured us that they have no plans to export further cruise missiles to Iran. These are sub-MTCR class missiles. In the recent summit there were further steps taken by China, further progress made on the missile front—not dramatic, but incremental and important.

So I think we are making headway, and I think this satellite launch program is an important part of that. Leaving aside all the commercial and other reasons to do it, I think we are making headway on this specific area, in part because of this policy.

Senator CLELAND. Thank you.

If we were to exclude China as a site for launching U.S. commercial satellites, what would we then have left in terms of countries that we would lean on to launch U.S. commercial satellites?

Mr. HOLUM. You might ask Secretary Reinsch to comment on that, too, but as I understand it, it would essentially be Russia and France, and there is a consortium of countries, including Ukraine and others, that is forming to do sea-based launches. That's basically it, maybe some other odds and ends.

Senator CLELAND. Mr. Secretary, would you like to add to that?

Mr. REINSCH. Thank you, Senator. Secretary Holum is correct; the Russians have a commercial launch operation. It is actually in Kazakhstan, but it's a Russian organization. The French launch in French Guiana. And then there is also the United States, as well as the consortium which would be a sea-launch platform that is, I believe, now under construction or preparation.

With respect to the United States, I would only observe that the statistics that we have indicate that the domestic satellite industry has about a two-thirds share of the satellite market, and about a 40 percent share of the launch market. So you can see immediately that there is a gap there that isn't going to be made up under current circumstances with U.S. launch capability or U.S. launch capacity.

To remove from the playing field one of the alternatives creates a significant competitive disadvantage for two reasons. The less important reason, actually, is cost; the Chinese tend to be cheaper. In fact, we have a bilateral agreement with them, going back to the Reagan Administration, to make sure they are not dumping their services.

The bigger problem is not so much cost, but time. Normally the way these things work is that the entity buying the satellite pays up front for the satellite but doesn't get any revenue until it is up, operating and performing whatever services it is performing. Therefore, the time from manufacture to launch and operation is a significant issue. If I, as a satellite manufacturer, tell you that "Well, you could launch American but you have to wait 2 years because that's the next window, but you can launch Chinese and they can do it in 6 months," what I'm telling you is that you have an additional 18 months of revenue that you can obtain.

If you're going to knock one of the available resources out of the mix, you're really tying our companies' hands behind their backs.

I would like to make one other point, if I may, in response to your previous question. I just observed that there are also foreign policy issues that come up here with respect to satellites that, at the end of the day, will be owned and operated by the Chinese. The Chinese normally require, if it's going to be their satellite, that it be launched on a Chinese vehicle, which is not particularly unusual; I think the French probably have the same requirement for their satellites with respect to French vehicles.

I would simply observe the last one on the chart, the Loral Chinasat–8, which has not yet been launched. It is in fact a satellite that will bring telephone, Internet, and television services to the people of China. We think that's a good thing; we think that's entirely in line with the tone of the summit and the President's efforts to bring Western ideas and a spirit of debate and freedom of expression to the Chinese people. Those are some of the things that would be sacrificed if launches on Chinese rockets are prohibited.

Senator CLELAND. Thank you.

Did I understand correctly, that we—"we" being the United States—still are launching some commercial satellites, but we don't have the launch capability to do what the market out there would require?

Mr. REINSCH. As I understand the situation, that's correct, Senator. One of the questions that came up in hearings on the same subject in the other body was whether there is more that the United States could do to promote domestic launch capacity here. And that's a very good question, and there is a lot of history about the rocket industry over the last 15 years that I'm not really the best person to testify to, but it's something that the Subcommittee might want to look into.

Senator CLELAND. Thank you very much.

If I could just shift your focus now, please, to the question of how we do this and which agency should be, in effect, in the lead when questions of dual-use technology are involved, and certainly, national security interests.

Apparently, members of the Intelligence Committee in the Senate have expressed some interest in shifting the basic responsibility, or the lead role, in reviewing launch applications back to the State Department. Also, apparently, on June 25 this panel heard from Dr. Lightner of the Defense Technology and Security Administration that the current and formal process to control exports of dual-use items has failed in its stated mission, and that there are instances where compromises have been made in the safeguarding of our national security interests.

Further along that point, the GAO testimony to the Congress has indicated that U.S. national security was better served when the State Department took the lead role in reviewing the launching applications.

There seems to be a growing concern that maybe the State Department should actually become the lead agency here when national security issues are involved and when dual-use technology is basically involved. Have you all changed your mind about this in the last few days at all? Or have you come to an opinion that you would like to share with us on this point?

Mr. HOLUM. Well, I would urge against transferring jurisdiction back to the Department of State, and let me make a distinction here, or make clear, that this is still divided jurisdiction, and the Department of State has, through two different means, the protection that we feel we need for important national security and policy considerations.

One is our participation in the Commerce Department licensing process. We have an opportunity to review these licenses. We haven't opposed any; the Department of Defense does, as well, have a very active role in that, including the right to escalate all the way to the President.

And second—and perhaps an area that doesn't get enough attention—is the fact that the State Department now retains control over every case in which the Chinese could gain direct access to the technology in the satellite, or any other related technology related to the launch.

Senator CLELAND. May I ask how long has that policy been in effect?

Mr. HOLUM. That policy has never changed. The State Department now and continuously has controlled, for example, all the technical data regarding the satellites, except the limited data that was transferred to the Commerce Department, which is form, fit and function, regarding mating the satellite to the rocket. Which really gains the Chinese nothing that's of particular value, other than to launch that particular satellite.

Mr. REINSCH. If I could elaborate, I think I, at least, got confused as to what we've testified to in the House and what we've testified to in the Senate. I think the House went into this in great detail.

The fact is that the President's decisions in both 1993 and 1996 has been very narrowly circumscribed, the kind of technology that the Commerce Department has authority to deal with with respect to satellites. The only technology that we can license is one of our licenses, as Secretary Holum said, is form, fit and function, which relates to how you literally mate the satellite to the rocket. If the company needs to go beyond that in any way, that is a State Department license. It had been a State Department license before 1996, it was a State Department license after 1996, and there isn't any argument about this.

And the fact of the matter is, particularly these days, as satellites become more complicated and larger and have bigger antennas and take on more features, virtually all of the satellites that are coming down the line these days in fact need an additional the State Department license along with the Commerce Department license, because of that, the technology that they control. And that hasn't changed.

Mr. HOLUM. We also have jurisdiction over anything related to the launch vehicle. And our policy precludes any assistance to the design, development, operation, maintenance, modification or repair of the launch vehicle. That's the thing that we're really concerned about here, because that's the rocket. That's the dual use technology that could also be a missile. And there's very little way to distinguish between the two.

And that has to be licensed by the State Department, and we don't license that for China. And of course, as has been made clear,

in the conditions to the Commerce Department license, the State Department has jurisdiction over all launch failure investigations. So any time there's an inquiry going back into what happened when a launch failed, that's a State Department license as well.

So any circumstance under which the Chinese customer or launcher could have access to technology still requires a State Department license, except for this limited form, fit and function area.

Senator CLELAND. Thank you very much, Mr. Chairman.

Senator COCHRAN. Thank you, Senator Cleland.

Let me say with respect to the charts that I owe Secretary Reinsch an apology, because I did assure him that I would see that he got copies of these charts that we were going to use in advance of the hearing, and I didn't do that. That was an oversight on my part, and I apologize to you for that.

I want to elaborate on the assurance that I gave Senator Levin, and that is that it would be helpful to us, in our full understanding of the facts, if you and Secretary Holum could give us your impression of the information that is on these charts with respect to its accuracy, first of all, and if there is in any way that these charts are misleading, I urge you to point it out in your reaction to it, so that we can put it in the record.

Mr. REINSCH. Thank you, Mr. Chairman.

Mr. HOLUM. We'd be happy to, Mr. Chairman.

INFORMATION FOR THE RECORD

CHINA SATELLITE LAUNCH CHARTS

State Department Licensed Launches

- We believe the information depicted in the July 6, 1998 chart is accurate.

Commerce Department Licensed Launches

- With regard to the column entitled "TAA From State?," it would be more accurate to refer to this entry as "TAA/License from State?" This is because in certain instances (e.g., Asiasat–2, Apstar–2R, Mabuhay, and Iridium) there were munitions licenses (but not technical assistance agreements, per se) approved by the State Department for technical data for which a TTCP was required.
- Concerning Hughes' Apstar–2 and Apstar–1A satellite launches that were ultimately licensed by the Commerce Department, the State Department had earlier approved a technical assistance agreement governing the exchange of information between Hughes and certain foreign nationals of the Asia-Pacific Telecommunications Satellite Co. (the prospective owner of the Apstar satellites). That TAA concerned the initial configuration of the Apstar satellite system when it was comprised of two series 376 satellites. Following the imposition of missile sanctions by the State Department in August 1993, Hughes sought and obtained the Commerce Department approval for a different Apstar–2 satellite (a series 601 rather than series 376 satellite), and also, thereafter, for the Apstar–1A. Hughes did not seek amendment of the TAA to cover the Apstar–2 or the Apstar–1A.

Senator COCHRAN. Thank you very much.

Senator Levin, any other questions?

Senator LEVIN. Just a quick commentary while Senator Cleland is here. My recollection relative to the GAO position was a little bit different from his. But we can just let that testimony speak for itself. My recommendation is that they said they were unable to draw a conclusion as to whether or not this two-track process in essence contains adequate safeguards for licensing. They're in the

midst, in fact, the Chairman I believe tasked them to come up with a conclusion on that question.

Mr. REINSCH. I think that's right, Senator. At the time they did the report, they said they were unable to draw that conclusion.

Mr. HOLUM. And there have been some changes since the conclusion of their report, or some clarifications.

Senator LEVIN. If I could, Mr. Chairman, ask a couple quick questions for Secretary Holum, and that has to do with the proliferation aspects of this question.

There was a witness who testified before the House last month, Gary Milhollin, who said that the decision to transfer control over satellite exports from the State Department to the Commerce Department "effectively pulls the teeth from any future U.S. sanctions against Chinese companies guilty of missile proliferation." And the reason for that, he said, was because the sanctions that apply for so-called category two violations of the Missile Technology Control Regime do not apply to items on the Commerce Control List, but do apply to the items on the Munitions List.

And so my question to you, Mr. Secretary, is whether you agree with that statement?

Mr. HOLUM. I agree with the factual predicate in the end, but I don't agree with the conclusion, because of the fact that category one sanctions still remain available over purely Commerce Department launches. Because no licenses would be granted in the case of category one sanctions. Category one relates to full-up missiles or major components of missiles.

Second, for the reasons we've been describing, more and more of these arrangements do require munitions licenses because of the technology that may be involved. And as a result of that, there would also be limitations. The category two sanctions would apply.

Senator LEVIN. He also testified that the decision to invite China to join the Missile Technology Control Regime was a mistake because, "if accepted, it would immunize Chinese firms from any future application of U.S. sanctions laws from missile proliferation." The concern here being that if China is a member of the Missile Technology Control Regime that exporting missile-related items to China would no longer require a license. And he said that U.S. firms could deliberately outfit Chinese missile manufacturing sites without telling anyone.

Could you comment on that?

Mr. HOLUM. I don't read U.S. missile controls that way, nor do I read the Missile Technology Control Regime that way. First of all, the Missile Technology Control Regime does not exempt member companies from the licensing requirement. We don't have a policy of automatic approval of licenses for missile-related technology to MTCR member countries. It's still reviewed on a case by case basis.

Second, there is built into the MTCR a presumption that the member countries will adopt their own enforcement mechanisms, their own domestic laws, to control the technologies that are covered by both category one and category two technologies in the MTCR annex. That's the virtue of having China and Russia join the MTCR. It gives us a much stronger lever to go and say, you've committed to control these exports from your country.

And that's one of the strongest methods we have to get them to comply, is if they've made a commitment, as opposed to we're sanctioning them because we have a domestic requirement that they behave in certain ways. But if they fail to enforce their domestic law, the possibility of sanctions is still there. We just began with the presumption that they will enforce their own laws against their own entities. And that's the first avenue, and the best avenue.

Senator LEVIN. You begin with the presumption, but you don't end with the presumption.

Mr. HOLUM. That's right.

Senator LEVIN. Thank you, Mr. Chairman.

Senator COCHRAN. Thank you, Senator Levin, very much, and thank you both for being here and helping us understand this complicated issue. We appreciate your returning to the Subcommittee.

We'll now hear from the Principal Deputy Assistant Secretary of Defense, Franklin C. Miller. Our witnesses here will be excused, and we would invite Secretary Miller to come forward.

Mr. Miller, if you would please raise your right hand. Do you solemnly swear the testimony you give before the Subcommittee will be the truth, the whole truth, and nothing but the truth, so help you, God?

Mr. MILLER. I do.

Senator COCHRAN. Thank you. You may be seated.

TESTIMONY OF HON. FRANKLIN C. MILLER, PRINCIPAL DEPUTY ASSISTANT SECRETARY, U.S. DEPARTMENT OF DEFENSE

Senator COCHRAN. Secretary Miller, we have had a lot of attention focused on the Loral Company analysis of a launch failure in 1996. Some have suggested that serious national security information was transferred as a result of giving the Chinese a copy of the analysis that was done by a Loral-led team following that launch failure in 1996.

We've since learned about this analysis that was done in 1995 by Hughes. And I think you were here in the hearing room when you heard that a copy of the report has been given to the Department of Defense.

Have you had an opportunity to review that report, and has the Department of Defense, to your knowledge, made any determination as to whether any national security interests have been harmed as a result of that unlicensed transfer in 1995, relating to the Hughes APSTAR II launch failure?

Mr. MILLER. Senator, the report arrived in my office at 10 minutes of noon today. I can assure you I have not had any chance to look at it, nor have I had time to get copies made and distributed in the Department. So I can also assure you that the Department has not had the opportunity to review that.

We will of course be doing so in the days and weeks ahead.

Senator COCHRAN. As I understand the new process under the Executive Order that President Clinton issued and put in place in 1996, each relevant agency has the opportunity to participate in the dual-use licensing process, and to appeal disagreements, if they have any, all the way to the President.

Is it correct that the process and procedure changes as a result of this Executive Order 12981? Were they considered by the Department of Defense to be sufficient to give national security concerns ample protection in commercial satellite export licensing decisions?

Mr. MILLER. Yes, Senator, they were considered by the Department of Defense, and the Department of Defense agreed to the executive order.

Senator COCHRAN. Now, we've had testimony previously that license disputes have never been appealed all the way to the President, because under the executive order's dispute resolution process, disagreements have been worked out at lower levels. Is that correct, and has the Department of Commerce accepted conditions requested by the Department of Defense for certain licenses that DOD was willing to agree to in licensing decisions for commercial satellites?

Mr. MILLER. It is correct that we have never felt the need to appeal an issue to the President. As in other kinds of interagency areas, we have been able to come to compromises. And as the keeper of the process in this particular case, the Commerce Department has told DOD representatives at whatever level is involved or invoked that the Commerce Department accepts the proposals put forward by DOD. And on that basis, the issue is resolved or closed.

Senator COCHRAN. After the decision then is reached by this consensus arrangement at the lower levels of the Department, does the Department of Commerce provide to the Department of Defense a copy of the export license that is issued under the executive order?

Mr. MILLER. No, sir.

Senator COCHRAN. How does DOD then know if its conditions that it's recommended in this process were accepted by the Commerce Department or actually included in the license as issued?

Mr. MILLER. We have to rely, Mr. Chairman, on the Commerce Department to carry out in good faith the commitments it made in the interagency.

Senator COCHRAN. Has there come a time when you have been made aware of any Commerce Department-issued license that did not include everything that had been agreed to as part of the executive order process?

Mr. MILLER. Yes. I did not learn in real time, but my staff informs me that there was at least one incident where they became aware of a license that did not exactly track with the agreement that had been made. And that we called the Commerce Department and the license was modified to correctly reflect what had been agreed.

As a matter of course, that's the only one I'm aware of. I don't know what I don't know.

Senator COCHRAN. As we look for ways to try to improve the process and make sure that national security interests are truly safeguarded in this process, as we all hope they are, would it be a more appropriate practice for a copy of the license to be given to the Department of Defense and/or the Department of State as issued?

Mr. MILLER. That's certainly my personal opinion. That's the way we do with, my analogy is to clearing a cable. You work a cable that goes out to diplomatic posts in the interagency, you all put your fixes in. At the end of the day, when the State Department sends out the cable, we all see it. So we all have the final copy.

My personal opinion would be yes, that would strengthen the situation.

Senator COCHRAN. On another subject, when we had our hearing on June 18, our initial round of questioning of the three departments on this subject, we discussed the commodity classifications and the unilateral determination that is made by the Department of Commerce as to the type of license under which a commodity is to be exported. We heard that the Commerce Department has notified exporters that as a result of a commodity classification, general licenses can be used to export a commodity.

And as I understand, what we heard from the witness is, general licenses receive no government review, but are self-issued licenses, in effect. And that only commodities requiring what's called an individual validated license are subject to the executive order process that we've been talking about.

Is that your understanding of the process as well?

Mr. MILLER. Yes, Senator. You have described the process exactly. Now, what changed as a result of the executive order, the new executive order, is that whereas, formally, prior to the December 1995, when the Commerce Department would decide what would be licensed we would only, we as the Department of Defense would only review those individual license requests that the Commerce Department believed DOD should look at in terms of dual use technology. Now we see all of the dual use licenses that the Commerce Department has in communications satellites and in, say, hot section technology.

But it is certainly true that for those technology exports that the Commerce Department decides do not require a license that we have no visibility into those.

Senator COCHRAN. So if an exporter consults with the Commerce Department and asks whether an individual validated license is required, DOD is not necessarily consulted?

Mr. MILLER. Is not consulted.

Senator COCHRAN. Is not consulted in that process.

Mr. MILLER. Unless someone were to raise an issue that said, is it really the Commerce Department's call, is it a State Department call.

Senator COCHRAN. And the Department of Defense officials would not be a part of the process in making the determination as to whether a license is required or not?

Mr. MILLER. That's right. That's the Commerce Department's responsibility.

Senator COCHRAN. Let me ask you about sensitive dual use items, such as satellites, which are reviewed by the Commerce Department under a Department commodity classification process. DOD has no opportunity to participate. Is there a procedure by which you could suggest that DOD is involved or could be involved in this?

Mr. MILLER. The honest answer, Senator, is that I do not know what I do not know. I don't know what kind of technology is or is not allowed by the Commerce Department to go out without the IVL.

Senator COCHRAN. The IVL means the individual validated license?

Mr. MILLER. Yes. Certainly the Commerce Department understands that items with national security impact are supposed to be given licenses and reviewed in the process. Whether something slips through, I honestly don't know, because I don't have any visibility into that. So I can't tell you whether it would strengthen the situation. Perhaps there are things that are going out without a license that we ought to be looking at. I don't know whether that represents 2 percent or 40 percent, either. So I'm really unable to answer that question.

Senator COCHRAN. Was the Department of Defense, in your judgment, in favor of a process or procedure that included DOD in that decision making process of whether a license is required or not?

Mr. MILLER. I guess I would answer that in two parts, Mr. Chairman. One, again because I don't know what—we may be talking 30,000 cases or 3,000 cases or 500 cases. I don't know how large that is. But if there is a subset, and in the subset a very sensitive technology that is still going out without license review, I would presume that that would be something we ought to be looking at.

Senator COCHRAN. Yes.

Mr. MILLER. Again, I have no idea.

Senator COCHRAN. I'd like to call to your attention a specific issue. On November 30, 1992, I'm advised that the Hughes Corporation asked for a commodity classification to determine if various technical information, consisting of some eight pages of technical information, which Hughes submitted to the Commerce Department, required an individual validated license for export.

I asked the staff to please give you a copy of this. It is a letter, with an attachment, and to provide a copy to other Senators as well.[1]

The Commerce Department responded to this November 30, 1992 request on January 25, 1993, about 2 months later, issuing a commodity classification which I'm also going to have handed to you and the other Senators. It's commodity classification number 33173, granting Hughes Corporation the authority to export all of this information that was contained in the November 30 letter, without an individual validated license.

Now, as I understand the process, and your testimony, the Department of Defense did not review, had no chance to review or comment, on this action by the Commerce Department. But some months later, someone privately made a request to the State Department for a commodity jurisdiction, known by the initials CJ, on these eight pages of technical information. They requested State Department to pass on the question of jurisdiction of all of these eight pages of technical information.

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[1] The letter from Hughes Corporation, dated Nov. 30, 1992, with attachments appears in the Appendix on page 115.

At a hearing on June 18, we brought this subject up, the subject of the commodity jurisdiction. Secretary Holum will remember that.

And we learned that the purpose of the commodity jurisdiction is to determine whether an item should be licensed for export under either the jurisdiction of the State Department and its Munitions List, or the Commerce Control List. Now, is it correct in your experience that the Department of Defense had a chance to examine this decision by the Commerce Department because a private citizen wrote to the Department of State and asked for a State Department commodity jurisdiction ruling? And whether or not the Commerce Department commodity classification ruling was rendered unilaterally, that is without the involvement of either the State Department or the Department of Defense?

Mr. MILLER. I'm informed that that's correct, Senator.

Senator COCHRAN. And so if this letter had not been written to the Department of State, in effect resulting in a partial overruling of the Department of Commerce, had the letter not been written to the State Department, the decision of the Department of Commerce giving the license without the review of other departments, it would have stood, and it would have been permitted to, it would have permitted Hughes Corporation to export all those eight pages of technology information, is that correct?

Mr. MILLER. Yes, Mr. Chairman, that's correct.

Senator COCHRAN. Now, we have a copy of the DOD submission to the State Department on this subject, which we will also give you a copy of, and want you to look at it. This document suggests that the Department of Defense agreed with the Department of Commerce on only 23 percent of the specific items in this request. That is, that no license is required for the export of the technical information.

The Department of Defense determined that 64 percent of the items should be exported only pursuant to an individual validated license. And the remaining 13 percent DOD could not or did not pass judgment on, because the request contained insufficient information or documentation.

So the Department of Defense, as I understand this document, took the position that only 23 percent of the information could be exported without a license. Though the Commerce Department had issued a commodity classification allowing all of it to be exported without a license.

Can this be described, in a fair way, as an example of why the Defense Department would like to have greater involvement in the Commerce Department's commodity classification process?

Mr. MILLER. Mr. Chairman, I can't, just glancing at this, tell you that the percentages are correct. But it is clear from the document that Defense did recommend split jurisdiction on this point, and that that would, that tends to indicate that Defense viewed this original decision as not being correctly classified.

But I would also say, especially with Secretary Reinsch and Secretary Holum here, that I can't give a full answer to this, that they ought to be allowed to comment on this.

But in answer to your question, this would indicate that Defense had gone on record saying that in this specific case, there was in-

formation which we believe belonged under the State Department jurisdiction and which we needed to review.

Senator COCHRAN. I appreciate that you can't at a glance verify all the percentages. And we're not asking you to do that. We're simply trying to find out whether this is an example of what would happen if DOD were involved in helping make the decision about whether an individual validated license is required, or whether a blanket permit can be issued to a company that writes in and gives eight pages of technical information, and then Department of Commerce, under current procedures, as I understand it, has the legal authority, under the executive order, to make that decision without consulting the Department of Defense.

Is that a correct statement that I just made?

Mr. MILLER. That is my understanding, Mr. Chairman. But again, Mr. Reinsch or Mr. Holum may have a different view.

Senator COCHRAN. I have some additional questions on the subject of monitors. But at this point, I think I will defer to my colleagues and give them a chance to ask questions on the subjects that I've covered or any other subjects they wish to explore.

Senator Levin.

Senator LEVIN. Thank you, Mr. Chairman.

This process that was just described by the Chairman was a 1992 letter, is that correct?

Mr. MILLER. That is correct, Senator.

Senator LEVIN. That was years before the 1996 Executive Order that we've been talking about, is that correct?

Mr. MILLER. That is correct. But again, not passing myself off as an expert, and deferring to Secretary Reinsch or Secretary Holum, it is my understanding that that is still the system under which we operate.

Senator LEVIN. I don't doubt that, but I'm just simply saying that this is not because of an executive order. This system long predated 1996, is that correct?

Mr. MILLER. That is correct.

Senator LEVIN. So I think it's worthy for us to explore the process that's used, but we ought to do it understanding that this system of allocation or classification apparently goes back to 1992, and perhaps before that, is that correct?

Mr. MILLER. That is correct, I mean, looking at this——

Senator LEVIN. Mr. Chairman, I'd like to ask Secretary Reinsch if I could, is it appropriate at this point for him to comment on this, to give him an opportunity to comment on this?

Senator COCHRAN. Why don't we complete our questioning of this witness, and then if you'd like to recall him, we'll do that.

Senator LEVIN. All right. I would like to do that. So perhaps he can stick around.

Has the Defense Department suggested that we make changes in the law or whatever it is that determines who does the commodity—I guess it's the classification that you were talking about here, I'll call it that. Has the Defense Department suggested that we make changes in this law?

Mr. MILLER. I understand I can't say that I did this personally, Senator Levin, but I understand that there was interagency debate and Defense did advance some positions along those lines.

Senator LEVIN. To the Congress, do you know?

Mr. MILLER. Not to the Congress. Within the Executive Branch.

Senator LEVIN. Could you find those items and forward those to this Subcommittee?

Mr. MILLER. Excuse me?

Senator LEVIN. Could you try to locate those suggestions or recommendations which were interagency at some point, and forward those to this Subcommittee, so that we can consider those changes?

Mr. MILLER. I'll certainly take that back, Senator Levin.

Senator LEVIN. All right.

Does the Defense Department believe that your power to influence the decision making process on satellites has diminished or was diminished by the executive order?

Mr. MILLER. No. Absolutely not. In fact, it was strengthened, in that we now have the clear right to review all Commerce Department licenses for communications satellites, commercial communications satellites.

Senator LEVIN. And the executive order that we're referring to here is the Clinton executive order in early 1996?

Mr. MILLER. December 1995.

Senator LEVIN. All right.

Mr. MILLER. Nor do we believe, Senator Levin, as was suggested, not by Senator Cleland, but in the quote that he had from a prior witness before the Subcommittee that our role has been diminished in this or our effectiveness has been diminished.

Senator LEVIN. Does the DOD see every Commerce Department license application to export a satellite to China?

Mr. MILLER. Yes. Under the new executive order, yes.

Senator LEVIN. And for these licenses, does the Department always require a technology transfer control plan?

Mr. MILLER. Yes.

Senator LEVIN. Does the Department of Defense always require U.S. supervision of a satellite in transit and while on Chinese soil?

Mr. MILLER. Absolutely. Our technology control plan, or technology transfer control plan, to go with the chart, requires that we have U.S. control of the satellite from when it is shipped, at the moment it is shipped to China, up through launch and indeed allows us to recover debris if the satellite fails and if the rocket fails and explodes.

Senator LEVIN. So that you, the DOD, have with every launch, a person who is physically monitoring the satellite, as of 1996?

Mr. MILLER. Well, 1995, early 1996. Yes. And again, for most of the period, with the exception of those three launches that were mentioned earlier, we also had monitors present.

Senator LEVIN. Well, I don't know, it's kind of hard to read that, because it says, were monitors required, it says no, then there's a little footnote on that chart that says even though they weren't required, they were present in a couple cases, if I can read that footnote correctly. That's the way I read it.

Mr. MILLER. Previously witnesses have told this Subcommittee and other committees that there were three unmonitored launches. As I read this chart, and again, reacting in real time, there are seven yellow squares where monitors were not required, take away two where they were not required but otherwise present is five.

Senator LEVIN. One was canceled. That gives you four.

Mr. MILLER. And I can't account for that other one.

Senator LEVIN. All right. Well, perhaps you could do that for the record, then. And also, as the Chairman and others, I've suggested, would you also give us your comment for the record on that chart, when you've had a chance to review it.

Mr. MILLER. Yes, sir.

Senator LEVIN. Finally, on June 25, the full Governmental Affairs Committee had a hearing focusing on the Defense Technology Security Administration, or DTSA. And a long-time DTSA employee had some criticisms of the agency, and I understand that the Department heard those charges for the first time during the hearing. There was some response from the DOD at that hearing.

Mr. MILLER. I was the witness.

Senator LEVIN. I was otherwise occupied on the Floor. But in any event, I'm wondering if you've had a chance to study that matter now, and if there's anything more that you would want to add, since you've had a chance to review it, or whether whatever you had to say at the time was it.

Mr. MILLER. I disagreed with much of what was said in that testimony. And if the Subcommittee desires, we can send over my personal assessment. I think that it was unfortunate that a number of issues were raised and confused. And I can give you some examples.

A great deal was made about the decontrol of lasers and laser weaponry. I'm not aware of any, and I've asked my staff, and they are not aware of any decontrols of laser weapons at all, or any decontrols of lasers that could be turned into or converted into weapons under dual use. And certainly, there are enough, as we all know from both the classified and unclassified material, there's enough laser weaponry that has come out of the former Soviet Union to make this a problem anyway.

There was an allegation that the administration's decontrol of oscilloscopes somehow was related to the Indian and Pakistani ability to test nuclear weapons, whereas the administration's decontrol of oscilloscopes specifically said that those objects could not be exported to countries of proliferation concern. The question was raised about the export of computers to Russian nuclear weapons facilities at Arzamus and Chelyabinsk, whereas in fact, when the license request was submitted to the administration, enough questions were raised that the license request was withdrawn.

The fact that computers went there has nothing to do with the licensing process. No licenses were granted. In fact, a criminal investigation was launched. So it had nothing to do with how the administration looked at it. In fact, the administration looked at it so critically that the request was withdrawn.

So throughout that testimony, there were a number of serious charges that were put in front of the Subcommittee that I believe the record will show, the facts will show, were without any substance whatsoever.

Senator LEVIN. If you could supply for the record any more complete statement that you might wish to have, I would appreciate that, if that's all right with the Subcommittee.

Senator COCHRAN. Without objection, we will receive that and make it a part of the record.

Senator LEVIN. And finally, Mr. Chairman, in addition to my request that the Department submit to the Subcommittee any recommendations that it had relative to the classification process—the Department of Defense—I would ask the other witnesses from the other departments to do the same. Not just any prior suggestions, but I would request these agencies to submit any suggestions that they have at this time relative to that subject, so that assuming there was a mistake made here in 1992, very possible there was a mistake made in this kind of a letter, but how can we avoid that kind of a mistake if indeed it was a mistake.

I don't want to prejudge it, you haven't had a chance to look at it. But I think we ought to ask the agencies, Mr. Chairman, all of our agencies, for any recommendations on this subject they have, whether or not they were existent at the time of this interagency discussion, so that we get their current thinking.

Senator COCHRAN. I think that's an excellent suggestion, and we may even put that in writing, so we have a copy of our request in the record to each Department—Commerce, State and Defense.

Senator LEVIN. Thank you, Mr. Chairman.

Senator COCHRAN. Thank you.

Senator Durbin.

OPENING STATEMENT OF SENATOR DURBIN

Senator DURBIN. Thank you, Mr. Chairman.

Secretary Miller, help me to understand context here a little bit. The decision as far back as the Reagan Administration that we would not develop the capacity to launch commercial satellites really meant that we had to go to the open market to find other countries with that capacity. I believe that became an inevitable result of that policy decision.

And now we find ourselves more and more dependent on that satellite technology for a variety of things that we believe benefit us and other countries in the world. As I understand, trying to parse through the process here, we are trying to make certain that we achieve the good that can come of this without sacrificing or in any way jeopardizing our national security. There have been a variety of different procedural approaches used here, including the President's executive order.

I guess my first question, an open-ended question, is do you feel at this moment that the current system that is in place protects our national security, so that our use of rocket launches for satellite technology in other countries will not jeopardize our national security or in any way transfer technology that is crucial for our national defense?

Mr. MILLER. Senator, I believe that the procedures now in place, which resulted from the December 1995-January 1996 executive order and change, are adequate to protect our national security. We in Defense review every license for a communications satellite launch. From a national security standpoint, that is really important.

Also, this is really much more under the purview of Secretary Reinsch. It means that our satellite, U.S. satellite manufacturers

have vehicles that they can use to get their satellites in orbit and start their money stream faster. The maintenance of a strong satellite production base is, at the end of the day, critical to our national defense needs.

So I believe we have the safeguards, and I believe it does help the satellite industry, and that is also important.

Senator DURBIN. How frequently do these launches fail?

Mr. MILLER. I can supply that for the record. It varies by launch system. I was looking at these statistics the other day. There are a few systems out there that have 100 percent record. There are some in the 80s, there are some in the 70s. It depends whether it's the European Arianne system, or whether it's the Russian Proton system or the U.S. Atlas or the U.S. Delta or the Chinese Long March.

So it really is, as I understand it, system-specific.

Senator DURBIN. Just taking the Chinese for an example, do you recall what the fail rate was?

Mr. MILLER. I think, again, let me get back to you for the record, because there are four or five different types of Chinese rockets that are used, they're different variants of the Long March system, some of which have 100 percent success rate, some of which have about a 75 or 60 percent success rate. Let me take that back and get you the accurate information.

Senator DURBIN. It's my understanding in reading and in conversations that in the event of a failure, a private company in the United States, before it can launch another satellite and obtain the insurance for that purpose needs to determine the cause for the failure and make some sort of effort to make certain it doesn't happen again, which would involve, I think, one of the fact situations that we've been talking about here.

One of the things that comes up as we discuss this is whether or not in improving this launch capacity of any country, China or any country, we are improving the capacity which could be used for a military purpose. How do you draw that line as you make the call from the Department of Defense in each of these instances?

Mr. MILLER. Our intent in creating the strict conditions on the licenses is to ensure that no technology is transferred to the Chinese with regard to improving their launch systems. We are using, not we, the U.S. company, is using the Chinese rocket as a delivery bus. That's all. As I think an editorial by Brent Scowcroft and Arnold Kantor said a few weeks ago, it's like FedEx. You give FedEx the envelope and FedEx takes it some place.

The safeguards that we put in place forbid the U.S. company to provide the Chinese with any information which would assist them in improving their rockets. So from that standpoint, we believe we have in place a series of safeguards that protect national security.

Now, to anticipate a question you didn't ask, what happens when somebody breaks the safeguards or breaks the laws, and it's a question that I think would go for any law. The laws are there, the regulations are there. It is clear what you're allowed to do and what you're not allowed to do. And if you break those, then there are obvious penalties, and the Justice Department gets involved.

Senator DURBIN. But the launch failure, the launch system failure, in and of itself, you are saying we don't address the improvements or the repairs necessary, or we try to draw a line?

Mr. MILLER. We try to draw a line.

Senator DURBIN. And stay on the other side, in terms of the development of that technology?

Mr. MILLER. That is correct.

Senator DURBIN. Even though the commercial customer may have a very personal interest in getting this rocket back up into space with his own satellite technology?

Mr. MILLER. Sure. But our requirement from a Defense standpoint, a national security standpoint, is to protect this country by not allowing China's military capability to be improved in this manner. That's why we put the conditions that we do. That's why we require a monitor to be present for any technical discussions between the satellite manufacturer and the launch provider. That's why all of our requirements on the license, the TTCP, are what they are.

Senator DURBIN. There's been some complaints in the commercial sector about dealing with China and difficulties and resistance. In the Department of Defense's role here, concerning these Chinese launches, have you detected any type of resistance or efforts to circumvent the clear intent of our laws to protect our national security?

Mr. MILLER. I personally have not, but I don't know that we would get involved. I personally have not, no.

Senator DURBIN. Thank you, Mr. Chairman.

Senator COCHRAN. Thank you, Senator Durbin.

Secretary Miller, we had testimony at our earlier phase of this hearing on June 18 that there were three launches that DOD was aware of that were licensed by the Commerce Department and completely unmonitored by DOD. And I know we've had some question about whether it's four or five. But Secretary Lodal at that time testified, "We are not aware of any transfer of technology from these unmonitored launches that contributed to China's missile or military satellite capabilities."

Does this mean in your judgment that no technology transfer occurred at these launches, or because DOD monitors were not present, DOD doesn't know if any technology was transferred? Could you help us interpret that?

Mr. MILLER. Mr. Chairman, speaking for myself and not Mr. Lodal, because I don't want to put words in his mouth, it would be to me the latter. That is, we have no knowledge of any technology transfer. Full stop.

Senator COCHRAN. The Department has suggested that monitors were neither required nor present at three launches of satellites in China, specifically APSTAR II, APSTAR IA and Chinasat–7. Those are the three that have been identified to us as having no monitors.

All of these satellites, we are told, are manufactured by Hughes and licensed by the Department of Commerce. The chart shows four other satellites that did not require monitors pursuant to its Commerce Department-issued license. That's our interpretation, that's what I understand is trying to be reflected in that chart.

Neither Echostar–1 nor Echostar–2 required monitors. Echostar–2 was ultimately canceled, which someone has already suggested, while Echostar–1 was monitored at the launch, but not throughout the process, because monitors already present for the launch were there for a previous satellite, and they stayed to monitor this Echostar–1 launch.

But there were no monitors required, as I understand it, and there were no monitors throughout the process, except at the launch, because of the coincidence.

On Chinastar–1, which was launched at the end of May, there were also no monitors required, but the company, which was Lockheed-Martin in this instance, showed up of its own volition and asked for monitors. That's the information obtained from the company. But monitors were not present throughout the entire process.

The Optus B3 is one where no monitors were required. Hughes has told us that no monitors were present at any stage in the process. But I understand from DOD that monitors were present at the launch.

Whether or not Hughes is correct, isn't it clear, that while the Commerce Department has been licensing satellites for launch in China, the technology transfer safeguards have been less stringent than when the State Department ran the process. Isn't that correct?

Mr. MILLER. I think it's certainly correct to say that the procedures now in place, as of December 1995, require that DOD monitors be present throughout. I can't speak to the details that you have just given with authority. I will take those all back and investigate those.

But I think as of the new executive order, there are supposed to be monitors and DOD wants there to be monitors and requires that there be monitors. Clearly there was a period in the transition when there were not DOD monitors, which is not what we would have preferred. And had things, as Secretary Lodal explained, had a State Department license that we had been expecting them then applied for, we would have had monitors there. But that license was not applied for.

But I would say to you that as of December 1995, that situation has been corrected.

Senator COCHRAN. Thank you.

I have no further questions of this witness. If you would like to ask additional questions, we can do that, or recall previous witnesses. It's up to you.

Secretary Miller, thank you very much. You are excused.

At the request of Senator Levin, Secretary Reinsch is invited back to the witness table, and we remind you, you're still under oath.

Mr. REINSCH. Thank you, Mr. Chairman, it's a pleasure to be back. [Laughter.]

Senator COCHRAN. Senator Levin.

Senator LEVIN. I just thought that we ought to ask the Commerce Department to comment on this process of classification of commodities, I guess it's called, or items. There was a reference to a 1992 decision of the Department of Commerce which the Department of Defense at that time, when it was brought to their atten-

tion, thought should have been at least partly, I gather, either on the Munitions List or on the dual use list of the Commerce Department. It's not clear to me, it may be clear to you from looking at those documents.

Could you talk to it, could you tell us what the process is, and whether or not suggested changes were made to get the DOD involved in that classification process, and if not, whether they shouldn't have a look at all the applications, to see whether or not they would agree that an item should be on either list?

Mr. REINSCH. Thank you, Senator Levin. One of the advantages of old age is being able to remember, at least for a while, some of the things that happened a long time ago that are reasonably obscure. In fact, we addressed precisely this question as part of the President's decision in 1996 to transfer jurisdiction.

What is not well known, because the satellite transfer has occasioned all the publicity, is that at the same time, the President addressed the question of commodity classification and commodity jurisdiction issues, which has been, I think, by all accounts, a thorny one for a long time. In fact, Congress has sought to address it in 1990, 1992, and 1994 in legislation, which was subsequently not enacted for a variety of reasons. It's a difficult question.

What the President did was, with respect to the general question of how you settle these disputes, which is what we're talking about here, was to do two things. First of all, he created——

Senator LEVIN. Excuse me for interrupting, you say settle these disputes. We've had a lot of disputes we're talking about where there's differences as to whether or not there should be a waiver. You're talking about whether or not an item, any item, should be controlled, should require a license. Is that what you mean by dispute?

Mr. REINSCH. No. By dispute—I've used a poor choice of words. The term commodity jurisdiction is kind of a term of art in our business. And it refers to the decision of whether an item is controlled by the State Department under the Munitions List, or whether it's controlled by the Department of Commerce under the Commerce Control List.

Senator LEVIN. But I thought this letter, which was referred to, said that they were not controlled on either list.

Mr. REINSCH. Well, that letter said that, yes. And I can comment on that in a minute.

Senator LEVIN. That's what my question goes to. I think we've spent a lot of time on whether one should be on one list or another, and then Congress is notified if it's shifted from the Munitions List onto the Commerce Department list, we're given a certain amount of time to act if we want to act. We've, I think, spent a lot of time on that, and I have no problem with you going back to that, if you want.

But there's a different issue which has been raised here, it seems to me, today. And I hope I'm not misinterpreting the Chairman's letter. I'm seeing this also for the first time, but let me tell you what I understand this letter to mean.

That November 1992, the letter went to the Commerce Department asking whether an individual license was needed for any of these items. The answer came back, no. Then the Defense Depart-

ment got into it when somebody raised a question about that letter, I think someone in the State Department or some department raised a question about this.

The question I'm asking you is, on that issue, whether an item belongs on either list, is that decision made in the first instance by the Commerce Department and should the DOD have some role in that question as to whether it should go on either list?

Mr. REINSCH. Well, what I was getting to is, we've set up a procedure where DOD would have the opportunity to review these. In this particular case, the answer to your question is that, because the question is whether it belongs with the State Department or Commerce——

Senator LEVIN. Or neither.

Mr. REINSCH. Well, but you have to go somewhere to decide which it is. And the applicant can go to either place. You can address, this is the company in question who has an item in question and wants to know, is it subject to anybody's license and if so whose, effectively under the system that's been in existence for years has a choice. He can go ask the State Department that question and they can say, yes, it's ours, or go to the Commerce Department, they can come to the Commerce Department, and we'll say whatever we say, or they can go to both.

In fact, in this particular case, that's what happened. Because there's one document that's not included in the pile that's here. And the sequence of events, as I understand it, and keep in mind this was largely before my time in the Department, the letter that you refer to was sent to us in November 1992. In January 1993, we responded with the commodity classification that was described.

Subsequently, the State Department was asked essentially the same question. What the State Department responded with in its letter to the Hughes company of September 17, 1993, was a commodity jurisdiction decision in which they refer——

Senator LEVIN. Excuse me, is that the letter which was given to you here today?

Mr. REINSCH. No.

Senator LEVIN. That's your letter, you got it from some other source?

Mr. REINSCH. This is the State Department's letter.

Senator LEVIN. I don't think any of us have that.

Mr. REINSCH. Well, I'd be pleased to provide it.[1]

Senator LEVIN. Is it short enough so you could read that letter?

Mr. REINSCH. As these things always are, it's in the form of a memorandum. It says, "the purpose of this letter is to inform you of a recent commodity jurisdiction on the subject data." The data, I believe, is the same as the eight-page document that the Chairman referred to. "This commodity jurisdiction request was referred to the Departments of Commerce, Defense, and the National Aeronautics and Space Administration for their review and recommendations."

"As a result, the Department of State has determined that the data outlined in this document is subject to the licensing jurisdic-

[1] The State Department letter, dated September 17, 1993, appears in the Appendix on page 132.

tion of the Department of Commerce. Please consult that agency's office of technology and policy analysis, and there's a phone number, to determine their requirements prior to export."

So the sequence of events here was that in January 1993, the Department of Commerce determined that this was under our jurisdiction and provided the classification to the exporter. In September 1993, the State Department came to the same conclusion and referred the exporter to the Department of Commerce with respect to how this should be treated.

Subsequently, and there's a reason why this kept going back and forth, Senator. But subsequently, the Commerce Department sent another letter, dated in this case January 1994, to the Hughes Company, reaffirming both of the previous decisions, the one by the State Department and the one by the Commerce Department, since they were the same decision.

What happened, if you want to know the story, is that essentially throughout this period, notwithstanding the decisions that were made by both the State Department and the Commerce Department, there were individuals in the Department of Defense who continued to tell the company that these items were under the jurisdiction of the State Department, notwithstanding the State Department's determination to the contrary. This caused the issue to be constantly going back and forth between agencies, as we attempted again and again and again to come to what was effectively the same conclusion.

Senator LEVIN. When you read that letter, you made reference there to the fact that that was referred to the Department of Defense.

Mr. REINSCH. That's what it says, yes. And I assume that the document that was provided last here, this thing that the Defense Department filled out, the one with the reference to the percentages, I assume that this was the document, that this was the Defense Department's response to that referral, the response to the State Department.

Senator LEVIN. So that the process in place at that time called for a referral to the Defense Department, or at least there was a referral to the Defense Department?

Mr. REINSCH. That certainly indicates that's what happened in this case, yes.

Senator LEVIN. So that we did get the Defense Department analysis, based on a referral from the State Department, is that correct?

Mr. REINSCH. That's what the documentary record indicates, yes.

Senator LEVIN. Well, it seems to me then we do have the kind of protection which we should have for this kind of an inquiry, to make sure that the Defense Department had an input in it. Is that the usual process?

Mr. REINSCH. Well, yes, Senator. And in fact, we've done better than that. Because as a result of the President's decision in 1996, that I started to refer to, we now have a process in place at the Commerce Department where we refer our commodity, a number of our commodity classification decisions to Defense for their review and objection, if necessary. If they believe we've made a wrong de-

cision, they can come back and tell us. And they've done that on several occasions.

Senator LEVIN. So that since January 1996——

Mr. REINSCH. It was later in 1996.

Senator LEVIN. Since 1996, there's been even a tightening of the reference process to be sure that something's referred to Defense. But I'm interested in this exhibit, back in 1992. What you're saying is that that inquiry was referred to the Department of Defense, and the Department of Defense responded to a State Department inquiry. Is that correct?

Mr. REINSCH. The State Department referred it, that's correct, and they responded, and you have their response. As I understand the situation.

Senator LEVIN. Well, was there an earlier letter that went out from the Commerce Department saying that none of that, that you didn't need a license at all?

Mr. REINSCH. Well, the sequence of events was, the Hughes company wrote us in 1992. That's the lengthy letter. We responded in January 1993, with our judgment that this was licensed under—what a commodity classification means is we give them a code number indicating under what categories this stuff falls. We said it was 9E96G.

At the time, that was a category that meant for the material in question, no license required.

Senator LEVIN. No license required was your judgment?

Mr. REINSCH. That was our judgment.

Senator LEVIN. OK.

Mr. REINSCH. Now, what the State Department determined later that same year was that the same technology, the same information, the same document from Hughes, was under our jurisdiction and not theirs. And so they referred the writer back to the Commerce Department for a decision. Our decision was the same, yes, it is our——

Senator LEVIN. At that time. But your decision at the end of 1993 differed from your decision——

Mr. REINSCH. No, our decision at the end of 1993 was the same as our decision at the beginning of 1993.

Senator LEVIN. I thought at the beginning——

Mr. REINSCH. We reaffirmed it. If I misspoke, I apologize.

Senator LEVIN. I don't think you did. I think I'm confused.

Mr. REINSCH. This was one of the great ping-pong balls of 1993.

Senator LEVIN. I understand ping-pong, I know that game pretty well. But it seems to me that in January 1993, what you've said is that it didn't require a license at all.

Mr. REINSCH. Didn't require one of ours, that's correct.

Senator LEVIN. One of your licenses.

Mr. REINSCH. Well, we determined that it falls under our jurisdiction, not the State Department's, and that within our system, it didn't require a license.

Senator LEVIN. All right. Then the State Department was asked about it. They referred it to the Defense Department. The Defense Department came back and said the 22 percent or whatever it is does fall on whose list?

Mr. REINSCH. I don't know. I haven't examined that. I think they said part of it was ours and part of it was the State Department's.

Senator LEVIN. OK, then, if part of it belonged on the Commerce Department list, that would be a difference from your own judgment in early 1993, would it not?

Mr. REINSCH. Yes.

Senator LEVIN. And then you accepted the Defense Department judgment later on in 1993?

Mr. REINSCH. No. The State Department took the matter up with the Defense Department. Presumably the Defense Department gave its advice to the State Department.

What the State Department said in 1993 was that the material was within the Commerce Department's jurisdiction, all of it.

Senator LEVIN. But that's different from the conclusion you reached, is it not?

Mr. REINSCH. No. Different from the conclusion the Defense Department reached. The State Department and the Commerce Department came to the same conclusion.

Senator COCHRAN. Senator, would you yield to let me ask one question?

Senator LEVIN. Sure.

Senator COCHRAN. There's another part of this letter, down at the bottom in the last paragraph that you didn't read, that says this ruling does not include technical data for launch vehicle satellite compatibility, integration or processing. Finally, this ruling does not cover detailed design technology or manufacturing processes or techniques.

Mr. REINSCH. Yes, sir, that's correct. What happens in these, and we would certainly agree that our ruling didn't include that, either. What both agencies were presented with was the eight-page document you referred to. And that eight-page document, as I recall, I don't have it in front of me, is a list of technology.

Based on our review of that document, we determined that the technology that was referenced in that document had this licensing classification. What the Defense Department is saying is the same thing, but making clear that it doesn't include this other stuff. And we would certainly agree with that. Our decision didn't include the substance of what you just read, either.

Senator COCHRAN. Why did Hughes write you back 9 months later and say, we don't understand your previous decision, would you explain it to us, and you never answered that second letter?

Mr. REINSCH. Well, no, we did answer the second letter. We wrote them on January 6, 1994, and then we wrote them again in May 1994, answering repeated inquiries. The reason they continued to write us back is that individuals at the Department of Defense continued to tell them that our decision was wrong, and that they were acting illegally. And they sought—this was a case, frankly, where the government was sending, different individuals in the government, were sending different signals.

The company returned to the Commerce Department and the State Department to get a decision. It is the Commerce Department and the State Department who make these decisions. The decisions were consistent, and they were the same. But the message

that the company got from other individuals was not always consistent with those decisions.

So the company returned periodically to reconfirm the decision that had been made previously.

Senator LEVIN. Could I ask one more?

Senator COCHRAN. Of course. I was just going to make the observation here that we're going to have to get somebody from the company to tell us what they meant when they wrote their letter. I think we're all wasting our time here trying to interpret a Hughes letter. We've got one dated October 8 which seems to clearly show that they are confused by the Commerce Department's response.

''Since there is some difference of opinion as to what event triggers the ability to utilize a Commerce Department license exception, please clarify conditions under which the exception is applicable.'' That's dated October 8, 1997. They're still trying to find out what it means. If they can't find it out, and they've got the job of complying with the rules, how are you and I going to figure it out? They're the experts.

I ask that a copy of this October 8 letter be placed at this point in the record.[1]

Mr. REINSCH. If I could comment on that letter?

Senator COCHRAN. Of course.

Mr. REINSCH. I'm sure you're looking forward to this. [Laughter.]

We believe what the company intended with that letter, and we have had some interagency meetings that have included the Department of Defense and others to discuss how best to respond, we believe what the company was asking us effectively was whether our ruling of 1993, which I've just referred to, and the State Department ruling of 1993, still stands, or whether the result of the jurisdiction transfer in 1996 changed anything. That's the question they were asking.

We do not believe that the question they are asking includes more technology than what they asked us in 1993, and they are essentially asking for a reconfirmation.

Senator COCHRAN. Have you answered this October 8 letter yet?

Mr. REINSCH. No, sir, we have not.

Senator LEVIN. Let me go back to 1992, because I think I may understand this now. Basically, you, the Commerce Department and the State Department agreed back in 1992 and 1993. The Defense Department disagreed.

Mr. REINSCH. That appears to be the case.

Senator LEVIN. But the key to me is that the Defense Department was involved.

Mr. REINSCH. Yes, sir.

Senator LEVIN. That's what I want to make sure of, because I think there was an implication here, an impression that was given that somehow or other, the Defense Department wasn't involved in this process. And the Defense Department was involved in that 1992–1993 incident. They said they interpreted whatever the regs were a certain way, and both the State Department, which has the Munitions List, and the Commerce Department, which has the

[1] The letter from Hughes Space and Communications Company, dated October 8, 1997, appears in the Appendix on page 133.

Commerce Control List, reached the same conclusion, that the Defense Department was wrong. Is that correct?

Mr. REINSCH. That's correct.

Senator LEVIN. All right. I have no way of knowing whether the State Department and the Commerce Department on the one hand were right or whether the Defense Department was right. That's way beyond my understanding, maybe, at least current knowledge.

But the important issue to me is that there was a reference to the Defense Department, they weighed in on the issue and they had their opportunity to be heard, whether they were agreed with or not by the folks that have to make these licensing decisions.

Now, the next question seems to me would be of the Defense Department as to whether or not something that they thought should be licensed was not subject to license. That, it seems to me, we either ought to ask for the record or, I guess that's the best way to do it, because that's what this all came down to back in 1992 and 1993, I gather, is that something which they thought should be subject to license was not subject to license in the opinion of both the State Department and the Commerce Department.

And we ought to find out, well, then, wait a minute, should anything which the Defense Department thinks should be subject to a license be subject to a license. Why not. Why not err on the side of caution. If the Defense Department thinks there should be an individual license, why not add that to either the Commerce Department or the State Department. That's a question I'd like to think about and ask the Defense Department or I can ask you. Why not just say, if that department thinks it ought to be subject to individual license, make it subject to an individual license?

Mr. REINSCH. That's a complicated question. I think over the years the Congress has felt, and various successive administrations have felt, that we ought to do the best we can to make this a collaborative process in which no one has a veto, but everybody has a role. And particularly with respect to dual use items, where there are significant commercial consequences either way.

As I said, in the past, that's not the dispositive issue, but it's not irrelevant either. That the legislation that Congress has passed and the actions administrations have taken, particularly this one, have consistently held that the exporter is entitled to an efficient, timely decision, and one that is made through a collaborative process in which everyone with equities plays, but no one has the power to stop the process.

If we're going to get into the business of saying that an individual agency should be determinative, we've witnessed in the past some of the consequences of that through processes that existed prior to the Executive Order of 1995 that we've discussed in the past, in which individual agencies essentially have the power to hold up licensing actions or commodity classification decisions indefinitely, simply by not making the decision. The common phrase in the exporting community at the time was, we had a licensing process that was like the roach motel, the applications check in, but they don't check out.

And the consistent demand that we got from Congress throughout that period, and something that I participated in at the time when I was here, and something that I know this administration

feels strongly about, is that the exporter is entitled to something better than that. He is entitled to a rapid decision, even if it's a "no." And he's entitled to a process in which there is, a collaborative process in which there is debate. Engineers get together and contend.

These are complicated, difficult questions. And they are technical questions. Reasonable people, competent engineers, will disagree. These things happen.

What I think is important is that we have a process in which there is a conclusion one way or the other; someone makes the decision. That is what happened in this case.

Now, what I've said frequently in other contexts is, these are controversial matters, virtually every decision that is made, and you've had a list of them and other people have had a list of them, virtually ever decision that is made, you can find a dissenter for. And if you can't find it in the Department of Defense, you can find them in the Department of Commerce or the Department of State.

I think the public interest is better served by a process in which decisions get made and not one in which they are simply put onto the back burner, which would happen if we started handing out vetoes or veto rights.

Senator COCHRAN. Senator, they've signaled that we have a vote on that's commenced on the Floor of the Senate. I suggest we try to wrap up the hearing, if it's OK with you.

Senator LEVIN. Thank you very much.

Senator COCHRAN. Mr. Reinsch, let me ask you one further question, then I'm going to ask that we call Mr. Miller back for a couple of questions, then we'll be done.

We can't find the requirement for DOD monitors resulting from the 1996 executive order change in licensing jurisdiction that gave the Commerce Department the lead role, not in a statute or policy or regulation or a memorandum of agreement, which we had in 1993, that allows for monitors but does not require them. Isn't this a fact that what we have here is a practice of the Department of Defense to suggest monitors? But there's no real requirement that there be monitors? Isn't that the state of affairs?

Mr. REINSCH. I would go a step further than that, Senator. We've agreed to do it, and we do it.

Senator COCHRAN. But it's not required by law, statute, regulation?

Mr. REINSCH. It's not required by law, it's not required by regulation. I would say it is our policy to do it.

Senator COCHRAN. Well, what happened was Secretary Lodal was here last time, and I don't want to try to impeach him, but he said this monitor requirement was incorporated as a requirement in 1996, when jurisdiction for all commercial communication satellites was transferred to the Commerce Department.

Mr. REINSCH. He was referring to the fact that we put it in each of our licenses as a requirement.

Senator COCHRAN. OK. But it's not a statute, policy or regulation, it became a practice?

Mr. REINSCH. Yes. We have not promulgated a regulation that says, we are going to put it in every one of these. In fact, we do put it in every one of these.

Senator COCHRAN. OK. Now we've got it, I think.

Could we have Mr. Miller come back for a couple of other questions? Let me remind you again, you're still under oath as well.

Is DOD review of the completed license prior to its issue by the Commerce Department one of the needed improvements you had in mind when you earlier commented that you do not get a copy of the license now under current practice?

Mr. MILLER. Yes, sir, that is my personal opinion.

Senator COCHRAN. And you also said, when you were before the Subcommittee on June 25, that our system is not perfect, it needs improvement, and even these hearings and preparing for them has given us some ideas that we need to carry out within the Executive Branch to better that. One of which would be getting a copy of the license as issued by the Department of Defense, is that correct?

What other changes, if any, can you tell us, or improvements in the process, should be made to minimize the technology transfer risk when launching a U.S.-built satellite in China?

Mr. MILLER. I think the system, as far as it goes to minimize the risk of technology transfer, is very good. I think that there are some things we in Defense could do better internally.

Senator COCHRAN. And Senator Levin has suggested that this would be good to have from each department, and I concur in that. If you would do that for us, we would include it in the record, State, Commerce and Defense Departments.

Is DOD involvement in the Commerce Department commodity classification process another of the needed improvements you had in mind? You touched on this earlier. I wanted to nail that down.

Mr. MILLER. I think that after our discussions so far, and the conflict between Senator Levin and Secretary Reinsch, that's one we'd all better go back and look at and submit to you in very clear form. There's one thing that I need to discuss with Secretary Reinsch in the history of what was just said about Defense's involvement as an historical fact we need to nail down.

Senator COCHRAN. In other words, there's a disagreement over that fact, isn't there?

Mr. MILLER. Well, I'm not quite sure. I only have what you told me, Mr. Chairman, about how DOD was brought into that process back in 1992 by a private citizen calling for a CJ and Defense not having been involved in the beginning.

What I'd like to do is check the history with Secretary Reinsch, and then submit to you for the record my understanding of how DOD got into that or didn't get into that.

Senator COCHRAN. And whether a formal change needs to be made to give you that right.

Mr. MILLER. I'd prefer to submit all of that as a package.

Senator COCHRAN. We would appreciate that.

Senator Levin, any further comments?

Senator LEVIN. That would be fine. Thank you.

Senator COCHRAN. We appreciate your help, all three witnesses. Thank you very much. The hearing is adjourned.

[Whereupon, at 4:07 p.m., the Subcommittee was adjourned, to reconvene at the call of the Chair.]

APPENDIX

Testimony of the Honorable John D. Holum
Acting Under Secretary of State for
Arms Control and International Security Affairs

Before the

Senate Subcommittee on International Security,
Proliferation, and Federal Services

June 18, 1998

Mr. Chairman and members of the Committee, thank you for the opportunity to address U.S. policy regarding the launching of U.S. satellites from China.

I'd like to make several fundamental points to place this issue in context. The first is that nonproliferation of weapons of mass destruction is a cornerstone in U.S. foreign and national security policy. We have placed great emphasis on strengthening international standards - a permanent NPT, completing the comprehensive test ban treaty, entry into force of the Chemical Weapons Convention, efforts to strengthen the Biological Weapons Convention, tighter multilateral restraint such as in the Missile Technology Control Regime. We have pressed better detection - our own technologies, enhanced IAEA safeguards, and others. We have pursued all the tools of diplomacy at all levels.

In her speech last week at the Stimpson Center, Secretary Albright catalogued in some detail our emphasis on nonproliferation and arms control and our broad strategy for pursuing those goals. Trends such as Iran's progress toward a medium range missile capability and the nuclear tests in South Asia make clear that these are not theoretical concerns, but looming threats. There is no disagreement between the Executive Branch and the Congress on the vital importance of these issues.

The second point is that China is indispensable to any effective nonproliferation policy.

China is a nuclear weapon state. Since the 1980s it has had a small but potent arsenal of ballistic missiles, some of which are capable of reaching the United States. It is a potential supplier of weapons, materials and technology to countries of proliferation concern. China's

approach can make the crucial difference between success and failure -- whether in negotiating international arms control and non-proliferation agreements, dealing with difficult regional proliferation challenges, or constraining the transfer of potentially destabilizing goods and technologies.

Unquestionably, China has been part of the proliferation problem. Its relationship with Pakistan's nuclear weapons has been a major concern since the 1970's; by 1990, the U.S. could no longer certify the absence of a nuclear weapons program in Pakistan. We also take sharp issue with China's chemical and missile cooperation with Iran. In 1991, the Bush Administration sanctioned two Chinese entities, and in 1993 the Clinton Administration sanctioned eleven Chinese entities, for transferring missile equipment and technology to Pakistan.

At the same time, my third basic point is that <u>although we still have serious concerns, China's approach to nonproliferation has changed markedly in recent years</u>.

Recall that China once advocated proliferation of nuclear weapons as a means of "breaking the hegemony of the superpowers." But in 1992 China joined the Nuclear Non-Proliferation Treaty (NPT) and thereby accepted a legal obligation not to assist others to acquire nuclear arms. As an NPT member, China has proven to be a constructive partner in our efforts to constrain the nuclear ambitions of North Korea. China has ratified the Chemical Weapons Convention and signed the Comprehensive Test Ban Treaty.

In 1994, China committed not to export MTCR-class ground-to-ground missiles. China's exports of missile-related components and technology appear to reflect a narrower understanding of the MTCR Guidelines than ours, but we have no evidence that China has acted inconsistently with its basic 1994 commitment. Similarly, we assess that China continues to abide by its 1996 agreement to end assistance to unsafeguarded nuclear facilities in Pakistan or anywhere else. China is taking steps to improve its export controls, including recent announcement of new dual use nuclear-related controls. And last year, China agreed to conclude its nuclear cooperation with Iran, and also to terminate its export of cruise missiles to that country. Today, it is working with us in efforts to promote stability and prevent an arms race in South Asia.

So the picture is mixed. The progress is substantial, but not enough, especially given the stakes. Therefore, my final broad point is that we must continue to use all the tools at our disposal to make China part of the nonproliferation solution. And we need to fashion the mix of tools in the way best designed not necessarily for psychic satisfaction, but for nonproliferation results.

What are the tools?

- Intensive diplomacy at all levels, including that of President Clinton and his predecessors.

- The front-line, day-to-day work of nonproliferation, with experts sifting through intelligence reports and generating demarches aimed at preventing specific transfers.

- Technical collaboration, such as our expanding cooperation to improve China's export controls.

- Sanctions. China's undertakings on missile restraint in 1992 and 1994 came about through waivers of sanctions then in force. The potential for sanctions was part of the atmosphere in 1996, when China pledged not to assist unsafeguarded nuclear facilities, and in 1997 when China agreed to cease sales of cruise missiles to Iran.

- And positive incentives. Unquestionably, China's recent far-reaching steps on nuclear nonproliferation were motivated, at least in part, by the prospect of civil nuclear cooperation with the United States.

Let me emphasize, however, that there are clear limits to incentives. Specifically, the United States continues our long-standing support for and cooperation with Taiwan, as President Clinton's actions during the 1996 crisis demonstrated. And, of particular relevance to the subject of this hearing, neither this Administration nor its predecessors have been willing to sell China arms or transfer sensitive technologies that could contribute to China's own WMD or missile programs.

* * * *

One aspect of our efforts to persuade China to adopt a more responsible nonproliferation policy, particularly regarding missile transfers, has been the basic policy of three administrations, beginning in 1988, to allow U.S.-made

satellites and foreign satellites with significant U.S. components and technology to be launched on Chinese rockets. This policy has been used judiciously as a "carrot" to encourage China to enforce strengthened nonproliferation standards.

But, again, the incentive is clearly limited, to exclude transfer of sensitive missile or satellite technology when satellites are licensed for launch from China. The U.S. has a very strict policy, secured in a bilateral technology safeguards agreement between the U.S. and China, designed to prevent the transfer of sensitive missile technology to China that could assist its space launch vehicle program. The agreement specifically precludes U.S. persons from assisting China in any way on the design, development, operation, maintenance, modification, or repair of launch vehicles.

The agreement itself also limits the level of technical data that may be provided to the Chinese to specific interface data related to form, fit and function that are necessary to mate the satellite to the launch vehicle. And the agreement provides for the right of U.S. Government oversight of all stages of a planned Chinese launch, including preparations, satellite transportation, and launch.

The Department of State has delegated the responsibility for implementing this agreement to the Department of Defense. The Defense Technology Security Administration (DTSA) acts as the executive agent for the U.S. side.

Licenses for the export of satellites for launch from China are issued subject to conditions designed to ensure the protection of sensitive technologies, including a requirement that the U.S. licensee conform to the technology safeguards agreement. Under current regulations DTSA representatives attend meetings between manufacturers and Chinese launch service providers to ensure that there is no transfer of unauthorized technology or technical data.

We do not believe that the commercial space launch activities that have been authorized by licenses and monitored under these procedures have benefited China's missile or military satellite capabilities.

* * * *

Against this background, I would like to give you the State Department's perspective on two events that have been the subject of broad reporting and commentary: first, the transfer of jurisdiction from the State Department to the Commerce Department for commercial communications satellites, and second, the most recent waiver, in February 1998, for Loral's Chinasat-8 project.

One unfinished piece of business facing the Clinton Administration when it took office in 1993, was a set of amendments to the International Traffic in Arms Regulations (ITAR) that had been prepared at the end of President Bush's Administration. The ITAR, administered by the State Department, implements the President's authorities under Section 38 of the Arms Export Control Act. The ITAR contains the U.S. Munitions List, which specifies articles and services which require a State Department license before they may be exported or, in certain cases, discussed with a foreign person.

In 1990, Congress inserted specific provisions in reauthorization of the Export Administration Act calling for removal of certain items from the U.S. Munitions List. In his veto message on the bill, President Bush said his Administration nonetheless would act to remove dual-use items from the U.S. Munitions List, except for those warranting the special controls of the ITAR. This led to an inter-agency study, and then draft amendments to the ITAR to remove certain dual use items, including commercial communications satellites.

However, since the conclusion of that study generally coincided with the election of President Clinton, the State Department deferred implementation so the incoming Administration could review the matter.

In July 1993 following further interagency study, the Clinton Administration approved the Bush Administration's proposed ITAR amendments without change. As a result, many commercial communications satellites were removed from the U.S. Munitions List and placed under the export licensing jurisdiction of the Department of Commerce. Commercial satellites remaining on the Munitions List were outlined in Category XV of the list, and cover nine specific performance characteristics such as antennae

capabilities, encryption devices, and propulsion systems. Over the next two years, those characteristics continued to define which communications satellites required a U.S. Munitions License and which required approval by the Department of Commerce.

The U.S. aerospace industry continued to press for treatment comparable with other communications trade, such as fiber optics and telephone switching equipment, which were controlled under the Commerce Department's Control List. They pointed out that characteristics once unique to military satellites were now routinely employed on commercial communications satellites. And they argued that the 30-year U.S. lead in building and exporting commercial communications satellites was under challenge from Japan, Europe and Canada, who were promoting the view that American manufacturers were unreliable because of the U.S. Government's restrictive export policies.

Secretary Christopher agreed on the need to ensure that U.S. Munitions List controls in this area are up to date and justified, and requested that an interagency study be undertaken on whether the characteristics specified in the International Traffic in Arms Regulations appropriately identified those communications satellites having significant military or intelligence capability. This inter-agency study was organized by the State Department and included the participation of the Defense Department, the Intelligence Community, the Arms Control and Disarmament Agency, the Department of Commerce, NASA and other interested agencies.

In September 1995, Secretary Christopher received and approved recommendations from the interagency group narrowing, but not eliminating, U.S. Munitions List controls. Those recommendations were supported by the Defense Department and the Intelligence Community. The Commerce Department supported removal of all commercial communications satellites from the U.S. Munitions List. Commerce then exercised its right to seek Presidential review.

This led to additional inter-agency review under the aegis of the National Security Council. As distinct from the earlier, split recommendation, this review produced a common recommendation from State,

Commerce, Defense and the Intelligence Community, with two important parts.

Henceforth, commercial communications satellites would be controlled by Commerce even if they had embedded in them individual munitions list components or technologies; in all other cases, munitions list technologies or components themselves would continue to be controlled on the U.S. Munitions List, subject to State Department licensing.

However, the further shift in control was accompanied by new control procedures and regulations to strengthen safeguards. Interagency review was strengthened, giving State and Defense the right to review all Commerce export license applications. A new foreign policy and national security control was established in Commerce's Export Administration Regulations whereby State and Defense could recommend denial of a satellite export to any destination on the basis of national security or foreign policy interests. Commercial communications satellites were made exempt from the foreign availability requirements of the Export Administration Act.

As Secretary Christopher noted in a recent letter published in the Los Angeles Times, these new features made it possible for the State Department to change its position and support the March 1996 recommendation to the President.

The bottom-line question is, of course, has this change resulted in a degradation of protection for U.S. national security. It was Secretary Christopher's conclusion, and remains the judgment of the Department of State, that the changes made in the Commerce export licensing system in 1996 were sufficient to deal with the national security sensitivities associated with foreign launches of communications satellites. They provide a degree of protection for these items when under Commerce control that approximates the strict controls of the International Traffic in Arms Regulations. Therefore, the State Department was provided with reasonable assurance that U.S. national security would not be adversely affected with the jurisdictional change.

* * * *

Finally, let me report that the waiver of Tiananmen Sanctions earlier this year for Loral's Chinasat-8 project was handled in a normal manner, in accordance with the procedures used in previous waiver requests.

This dealt with the proposed export under a Commerce license of a commercial communications satellite to the China National Postal and Telecommunications Appliances Corporation for launch from China. The satellite, once launched, will provide commercial voice, video and data traffic to China. The State Department received applications to approve technical assistance agreements in conjunction with the export, and these were distributed for interagency review. After all consulted agencies concurred in the issuance of the proposed technical assistance agreements, subject to the normal limitations and conditions, the State Department recommended to the President that he waive Tiananmen sanctions, in accordance with established procedures.

When we recommended the waiver, senior Administration decision-makers were aware that Loral was under criminal investigation for alleged violations of the Arms Export Control Act. But the State Department's long-standing policy has been that, provided the activity proposed for waiver is consistent with U.S. national security and foreign policy, we do not deny export privileges to U.S. firms that are under investigation but have not been indicted. However, if a U.S. firm is indicted, the Department does adopt a denial policy on the basis of the indictment, and does not wait for a conviction.

The State Department recommended the Presidential waiver for Chinasat-8 in line with the established policy that such exports are in our national interest. Permitting the launch of satellites from China is part of our broader engagement policy, which includes a strong basis for U.S.-Chinese cooperation on missile nonproliferation issues.

Of course there were other arguments for the waiver, including the desire to help preserve the U.S. lead in telecommunications industry and jobs for American workers. But these aspects would not outweigh nonproliferation and national security considerations.

* * * *

It is against this backdrop that the United States conducts commercial space launch cooperation with China. We strive to accommodate U.S. commercial and economic interests -- including promoting U.S. satellite exports -- but within our paramount nonproliferation and national security objectives. We have a system, involving the licensing and technical safeguards processes, to deny access to sensitive missile technology by China. At the same time, if any persons violate our laws and regulations in this area, then such violations need to be investigated fully and prosecuted accordingly.

The United States has engaged China at the highest levels regarding its nonproliferation policies and practices. We continually encourage China to strengthen its export controls and to bring its nonproliferation polices and practices more in line with international norms. The prospect of launching U.S. satellites -- under technology safeguards and according to the disciplines of our commercial space agreement -- is an important inducement to a positive evolution in Chinese policy, which, in turn, is indispensable to the containment of proliferation in a dangerous world.

TESTIMONY OF
WILLIAM A. REINSCH
UNDER SECRETARY FOR EXPORT ADMINISTRATION
U.S. DEPARTMENT OF COMMERCE
BEFORE THE
SUBCOMMITTEE ON INTERNATIONAL SECURITY,
PROLIFERATION AND FEDERAL SERVICES
THE ADEQUACY OF COMMERCE DEPARTMENT
SATELLITE EXPORT CONTROLS
JUNE 18, 1998

Mr. Chairman, I want to thank the subcommittee for this opportunity to testify on the export of commercial communications satellites to China. I believe this Administration's policy on the export of commercial communications satellites to China both protects our national security and facilitates our economic well-being. In allowing China to launch U.S. satellites and transferring licensing jurisdiction for commercial communications satellites to Commerce, this Administration has continued and enhanced the policy of the Reagan and Bush Administrations and has been consistent with Congress' expressed intent.

Our current policy continues the decision by previous administrations to allow China to launch U.S.-built satellites subject to bilateral agreements on price, number of launches and technology safeguards. President Reagan began this policy in light of the growing demand for satellite launches, a demand which could not be met by U.S. launch service providers. His decision was a wise one, and he deserves credit for ensuring that the U.S. would continue its lead of the commercial communications satellite industry. Our view, like that of Presidents Reagan and Bush, is that under the appropriate safeguards these launches need not pose a risk to national security. In a moment I will describe these safeguards as they apply to Commerce licensed commercial communications satellites.

Commerce licensing of commercial communications satellites grew out of a 1990 decision by President Bush to veto a revised Export Administration Act which would, among other things, have moved all communications satellites to Commerce jurisdiction. President Bush's veto was not related to the satellite issue, but in his veto message he directed that State review its control list to determine if a range of items, including communications satellites, could be moved to Commerce jurisdiction, in light of the strong interest expressed by members of both parties in the jurisdictional issue and as the U.S. was the only country in the world to control communications satellites as munitions items. As a result of this directive, the State Department transferred an initial tranche of roughly half of all commercial communications satellites to Commerce licensing jurisdiction at the end of the Bush Administration. President Clinton committed in 1993 to continue the list rationalization exercise begun by President Bush. It is also worth noting that in 1990 and 1992 both houses of Congress passed legislation that would have transferred jurisdiction over commercial communications satellites to Commerce, and in 1994, committees in the House introduced and in the Senate reported bills with this provision. These actions are in

addition to the letters the Administration received from a number of Members of Congress urging either the jurisdiction transfer or the export of satellites to China.

The 1992 transfer had established nine technical parameters relating to communications satellites' components and capabilities. Satellites with capabilities above the parameters were controlled by State. Those with lesser capabilities were controlled by Commerce. A 1995 review, undertaken by a working level group of technical experts led by the State Department, attempted to adjust these parameters to see if additional satellites could be moved to Commerce jurisdiction. However, this technical working group was unable to resolve several issues. Rapid technological change in the current generation of commercial communications satellites meant that the nine parameters could not consistently separate "military" from "commercial" communications satellites. These changes made the parameters outdated and illustrate the migration of military technology into the commercial communications satellite sector as the demand for satellite telecommunications services grows.

A cursory review of some of the parameters illustrates the problem. For example, a satellite flown at high earth orbit has a larger "footprint" on the ground than one flown at a low earth orbit. Even though the two satellites could be exactly the same, the one with the larger footprint would be treated as a munition if it flew at a higher orbit. As satellites become lighter, the same propulsion system provides greater acceleration. This means that new satellites, which weigh less than old models, would be controlled as munitions only because of their lighter weight.

Another parameter, cross-link capability, allows satellites to exchange data without going through an intermediary ground station. In 1990, only military satellites needed to "talk," but the development of communications satellites for a global mobile phone network means that civil satellites also needed to be able to ensure global coverage and to avoid the expense of numerous ground stations. Satellite antennae size was also a parameter. Satellite antennas allow the transmission and reception of signals from the ground. The larger the antenna, the better it can receive signals from small transmitters like cell phones. Successful implementation of global mobile telephone systems required that future civil communications satellites use these specialized antennas. Using these parameters to determine licensing jurisdiction means that Iridium, Teledesic and other satellite systems would now be licensed as arms exports.

With respect to the transfer of jurisdiction, Secretary of State Christopher, in a June 8 statement in the Los Angeles Times, makes clear that his 1995 decision was to task State and its industry advisory group to continue the process begun by President Bush in 1990 to determine what additional communications satellites could be moved to Commerce control. It was the Secretary's instruction that led to the eventual transfer of all satellites to Commerce, a decision which all agencies involved -- State, Defense, Commerce -- supported.

As Secretary Christopher noted, this unanimous recommendation was due in part to President Clinton's December 1995 Executive Order 12981, which revised the Commerce licensing process. This executive order provided the participating agencies -- State, Defense, Energy, and ACDA -- with the right to review and make recommendations on any Commerce license application they wished, and it established time lines and rules for interagency review and

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procedures for dispute resolution and allows any agency the chance to object to proposed exports through a hierarchy of committees from the working level all the way to the President. Moreover, as part of the transfer of jurisdiction, President Clinton amended Executive Order 12981 to specifically give State, Defense, Energy, and ACDA greater ability to object to a proposed export of commercial communications satellites.

In reality, no licenses have ever been sent to either Cabinet Secretaries or the President in this Administration, but disagreements go as high as the assistant secretary level in perhaps five percent of our cases. Every license approved by Commerce for commercial communications satellites since the 1996 transfer has had the unanimous assent of State, Defense, and ACDA, has been subject to the same level of stringent technology safeguards as satellites licensed at State, and has made clear to exporters that no rocket technology could be transferred.

The President's decision applied only to commercial communications satellites and the minimum equipment and technology needed for launch. Space launch vehicles and all detailed design or manufacturing data for space launch vehicles or communications satellites were not transferred to Commerce as part of this decision. Nor was there a transfer of numerous satellite components, if they were being exported separately rather than as part of a single satellite launch package.

The President's decision to transfer jurisdiction required that Commerce impose enhanced controls on satellites. These new controls excluded commercial communications satellites from certain provisions of the Commerce regulations, such as foreign availability, which can be used to release items from licensing. In addition, the enhanced controls created a new and higher standard for reviewing communications satellite licenses which requires a review of every application to determine if the export is consistent with U.S. national security and foreign policy interests. Language from the Arms Export Control Act was used with the intent of providing the same level of control under Commerce regulations as was found under State regulations.

Commerce licenses for communications satellites contain numerous conditions and provisos developed in conjunction with the Departments of Defense and State. Under Commerce licenses, exporters are obliged to comply with the terms of the satellite technology safeguards agreement between the U.S. and China, which requires them to:

-- develop a technology transfer control plan which identifies the level and extent of technical data to be released, and which also includes plans for securing the satellite during its transportation to the launch site;

-- have all technical data under the license reviewed by the Defense Department prior to its release to the launch service provider and have a Defense Department monitor present at technical meetings and launch activities with the Chinese launch service provider;

-- transport the satellite in a sealed container allowing no access to equipment or technical data and with U.S. monitors to accompany the satellite if it is transported on a non-U.S. aircraft;

- have a separate cryptographic equipment safeguard plan for communications security equipment;

- limit technology which can be released under the Commerce license to only form, fit and function data used to mate the satellite to the rocket and require the exporter, in the event of a launch failure, to obtain a license from State before releasing any new technical data.

In light of these safeguards, I believe the existing Commerce licensing system fully protects our nationals security and foreign policy concerns. There have been no allegations regarding export control violations of Commerce satellite licenses since the transfer of jurisdiction,

I understand there have been questions raised about an analysis conducted of the 1995 APSTAR II launch failure. After that failure, the company involved conducted an analysis without the participation of the Chinese launch service provider. The analysis was written in order to satisfy insurance requirements. The analysis was reviewed by the Department of Commerce, which determined that it contained only information already authorized for export under the original Commerce license issued in February 1994. The unclassified report was provided first to a consortium of Western insurance companies and later to the Chinese launch service provider.

I would also like to correct some misunderstandings which have arisen regarding the Commerce licensing process as a result of an earlier review by the General Accounting Office. In particular, GAO asserted that there are five differences in the treatment of satellite licenses at Commerce and at State. A closer look shows these differences do not affect national security. GAO reported that:

- *Congressional notification of individual licenses is not required in the Commerce system.* Commerce regularly briefs the Hill, issues annual reports, provides licensing documentation and answers inquiries upon request. We have provided briefings on satellite exports, and we briefed on the transfer of jurisdiction in 1996. We are not aware that the Congress has ever objected to any satellite export, and the message that Congress has consistently sent is that it wants satellites controlled as dual-use items under the Export Administration Act, which does not generally provide for Congressional review of individual licenses. In the specific case of satellites, of course, there can be no exports to China without a Tiananmen Square waiver which is notified to the Congress.

- *Sanctions for missile proliferation do not apply to Commerce licenses.* Sanctions do apply to Commerce in cases of Category I violations, and the President generally has flexibility to include dual use export sanctions in other cases. Normally, however, Category II missile sanctions apply only to munitions and dual-use items controlled under the Missile Technology Control Regime. Commercial communications satellites fall into neither category. Congress clearly intended Category II sanctions to be less onerous than Category I sanctions, which do cover dual use items.

-- *Defense's power to influence the decision making process has diminished.* DOD's authority has not diminished in this regard. Commerce has denied licenses when Defense has raised national security concerns found credible by the reviewing agencies, but Executive Order 12981 does not give Defense or any other agency a veto over licensing, which would be contrary to legislative authorities and Congressional intent. It does, however, permit an agency, including DOD, to prevent approval of any license until the President has heard and decided on its objections.

-- *Technical information may not be as clearly controlled under Commerce procedures.* Since Commerce technology conditions are almost identical to those used at State, it is hard to see how the level of control on technology has changed.

-- *The additional controls placed on communications satellites transferred in 1996 do not apply to those transferred in the Bush Administration.* This the assertion misses the point. In practice, all satellite applications subject to Commerce license after the transfer are subject to the same safeguards, and the other agencies have the same review and escalation rights.

Let me also suggest that as a matter of policy there are several reasons why allowing Chinese launches of U.S.-manufactured satellites is in our interest. First, this is a large and important industry that is growing rapidly. U.S. industry revenues last year were $23.1 billion, a 15% increase from the previous year. Employment in 1997 was over 100,000, a 10% increase from the previous year. The industry indicates that it currently has $1.7 billion in launch contracts on Chinese rockets, with 8,000 U.S. aerospace jobs directly supported by those contracts. With over 1200 satellites expected to be launched over the next ten years, it is clear that the U.S. industry will continue to need access to the full range of launch providers if it is to remain the world's leader. And that is a status I think we all support, because it is not only good for our economy, it is good for our military and our national security as well. As the line between military and civilian technology becomes increasingly blurred, what remains clear is that a second class commercial satellite industry means a second class military satellite industry as well -- the same companies make both products, and they depend on exports for their health and for the revenues that allow them to develop the next generation of products.

Second, some of these satellites bring telephone, television, and Internet services to the Chinese people. I believe such services are an integral part of any effort to bring democracy and freedom to China. History has shown that it was the successful example of the West -- not only in military strength but in standard of living and freedom of expression -- that brought the Cold War to an end. Our goal should be to bring not only our products but our ideas and values to China, but we cannot do that if they do not have the technological tools to receive them.

International security since the end of the Cold War poses very real problems for the United States. We are in the midst of a serious debate as to whether we should seek to constructively engage those with whom we have disputes or whether we should simply try to punish them through unilateral embargoes and sanctions. It may make us feel good to impose Cold War-style embargoes on these countries -- even though they rarely work -- but they do not help us achieve our objective of changing the other country's behavior. Those who find it in their interest to exaggerate the threat of trade with China seem incapable of defining our relations with this emerging power in any terms but those of military conflict. However, we believe that treating China as a committed adversary is the quickest way to ensure it becomes one, and we remain convinced that it is better to engage China frankly in dialogue, in trade, and in ideas than it is to seek to isolate them.

STATEMENT OF JAN M. LODAL
PRINCIPAL DEPUTY UNDER SECRETARY OF DEFENSE FOR POLICY

BEFORE A HEARING OF
THE SUBCOMMITTEE ON INTERNATIONAL SECURITY,
PROLIFERATION AND FEDERAL SERVICES,
COMMITTEE ON GOVERNMENTAL AFFAIRS,
UNITED STATES SENATE

June 18, 1998

I am pleased to appear today to discuss U.S. policy regarding the export of satellites to China. In my statement I will outline the policy framework and the role of the Department of Defense in implementing this policy.

In September 1988, President Reagan decided to permit the launch of U.S. commercial communication satellites by China. This decision was motivated by the desire to allow commercial relations with China to expand in a more normal manner. The Reagan administration understood the potential risk that such a program could lead to the transfer of missile-related technology to China, but also recognized that China had for many years had the basic technology necessary to develop and deploy effective ballistic missiles, including intercontinental missiles capable of hitting the United States.

To help ensure that no significant missile or satellite technology is transferred to China, the U.S. negotiated a bilateral technology safeguards agreement with the PRC in 1988. This bilateral technology safeguards agreement was renewed with minor modifications in 1993 and remains in force today. The agreement has two important features to protect U.S. national security interests: (1) it prohibits the transfer of specific technical data and assistance by U.S. companies to China and prohibits the Chinese from seeking that technical data or assistance; and (2) requires oversight and monitoring of the launch campaign by the U.S. government. I will address these particulars of this monitoring activity later in my statement

The requirements of the bilateral technology safeguards agreement are implemented through conditions on export licenses. From 1988 to today, the jurisdiction for export licensing of satellites has shifted between the State Department munitions system and the Commerce Department dual-use system. There are three periods of time where the jurisdiction was different: (1) 1988 to 1992; (2) 1993 to 1996; and (3) 1996 to today. I will discuss each of these periods in turn.

From 1988 to the end of 1992, all communications satellites were licensed by the State Department under the International Traffic in Arms Regulations. Up to 1988, State had always had jurisdiction over such satellites and the decision by President Reagan to permit transfers to China did not change this system. In brief, State controlled all of the technical data and technical assistance required to perform a launch of a U.S. built satellite in China. These controls also extended to all design, development, and manufacturing data on communication satellites. Licenses issued by State for satellite transfers to China for launch contained several safeguards including conditions that required USG monitoring of the launch campaign as outlined in the U.S.-China bilateral technology safeguards agreement. During this period, there were four licenses issued by State for the launch of U.S. built satellites in China.

In late 1990, Congress passed the "Omnibus Export Amendments Act" which President Bush ultimately vetoed. One of the bill's provisions was a requirement to transfer to Commerce jurisdiction over those items on the State munitions list that were on the then-COCOM dual-use list. As an administrative matter, President Bush directed a review to accomplish this jurisdictional transfer in a manner that also ensured national security interests would be protected.

One result of this review was a decision by the Bush Administration in 1992 to transfer license jurisdiction for purely commercial communication satellites from the State Department to the Commerce Department. Commerce controls also extended to include "form, fit and function" technical data necessary to mate the satellite to the launch vehicle. Nine technologies were identified as giving a satellite specific military capabilities, and any satellite containing any of these nine technologies continued to require a license from the Department of State. For example, satellites with large antennas, intersatellite relay links, and specialized on-board processing remained under State control as did the "kick motors" necessary to launch satellites into high earth orbits. State also retained control over: (1) all

launch vehicles; (2) all technical data beyond "form, fit, and function" that is associated with the integration of satellites with launch vehicles; (3) all design, development, and manufacturing data on satellites; and (5) all technical assistance (e.g., engineering services) that might be provided by U.S. companies to the foreign launch service provider including any analyses of launch failures. The Clinton Administration issued some of the regulations implementing this jurisdictional change shortly after taking office in 1993.

During this period, monitoring by the U.S. government was required in all licenses for launches of satellites that contained one or more of the identified military-related technologies or kick motors, any launch vehicle integration technical data or any technical assistance – that is, in all the licenses issued by the Department of State. There were three launches during this period that were not monitored. These were launches of purely commercial satellites, licensed by Commerce, that did not include DoD monitoring. Monitoring had always been associated with the licenses issued by the State Department, and DoD license review procedures anticipated that there would be at least one State license required for the launch of even these commercial satellites now licensed by Commerce. However, these launches did not require any State licenses. We are not aware of any transfer of technology from these unmonitored launches that contributed to China's missile or military satellite capabilities. Nevertheless, DoD did conclude that full monitoring would be a strong safeguard at relatively low cost to the companies that should be applied to all license cases, even those that did not require Department of State licenses. This was agreed by all agencies and incorporated as a requirement in 1996 when jurisdiction was transferred to Commerce for all commercial communication satellites

The basic approach to implementation of the Bush Administration policy was to follow the established interagency procedures for the review of dual-use export licenses. During this period, it became increasingly clear that these procedures needed reform, not just for satellites, but across the board. The Clinton Administration undertook such a review, which led to the issuance of Executive Order 12981 in December of 1995. This Executive Order established strict timelines for license reviews, and put into place a disciplined dispute resolution process.

In 1996, President Clinton decided to transfer additional jurisdiction for commercial communication satellites from the State Department to the Commerce

Department. DoD supported this transfer because the transfer did not involve certain sensitive technology associated with satellites and launch vehicles and because the transfer was accompanied by several changes in procedures that protect DoD's ability to ensure that transfers are consistent with U.S. national security. The system is now the following:

(1) Companies can export complete commercial communication satellites under a Commerce license even if they contain one or more of the individual military technologies that defined State jurisdiction over communication satellites prior to 1996. All of those individual military technologies, however, must still get a State license when not exported as part of a complete communications satellite.

(2) Commerce continues to control certain limited "form, fit, and function" technical data necessary to mate the satellite to the launch vehicle.

(3) State retains control over all launch vehicles, all technical data associated with launch vehicles or the integration of satellite payloads with launch vehicles, all design and manufacturing data for satellites, and all technical assistance that might be provided by U.S. companies to Chinese launch service providers including any launch failure analyses.

In addition, several changes were made to strengthen the Commerce system and the 1995 Executive Order governing interagency reviews of dual-use licenses. The changes in procedures that are now in effect include:

(1) License determinations are subject to majority vote of reviewing agencies with a continuing right of any dissenting agency to escalate the matter up to and including the President.

(2) Licenses can be denied for broad national security reasons to any destination.

(3) Communication satellites are not subject to formal foreign availability determinations under the Export Administration Act.

(4) All communication satellite licenses must include strong safeguards including DoD monitoring and payment of DoD monitoring expenses by the companies.

DOD currently reviews all communication satellite licenses to ensure that the proposed export would be consistent with U.S. national security interests. DOD's recommendations reflect inputs from relevant DoD components such as the Air Force and the National Security Agency. DoD's recommendations to approve such satellite exports are conditional on strong safeguards including:

- A requirement that the satellite exporter prepare a Technology Control Plan which must be approved by DOD.

- The Technology Control Plan must include: (1) a detailed transportation plan for shipping the satellite to ensure that only U.S. personnel have access to the satellite at all times; and (2) a detailed physical and operational security plan including procedures for the supervised mating of the satellite to the launch vehicle.

- A requirement that technical data that the U.S. company wants to transfer to the Chinese launch service provider is approved in advance by DoD's Defense Technology Security Administration.

- A requirement that a DOD monitor be present at technical meetings between the U.S. exporter and Chinese launch service personnel to ensure that no information is exchanged that would improve Chinese missile or satellite capabilities. This includes a requirement that DOD monitors be present at the launch site in China to oversee physical site security and launch operations.

Statutory Tiananmen sanctions require that the President issue a "national interest" waiver before a license may be issued for any U.S. satellite export to China. A memorandum with a recommendation is prepared for the President, typically by the State Department. In this connection, DOD has reviewed such memoranda to ensure that the memorandum accurately describes the safeguards and other conditions that DoD has recommended for inclusion on the license.

As the committees know, allegations that Loral Space Systems and Hughes Aircraft Company have committed export violations in connection with a failure of a Chinese launch of a Loral satellite in February 1996 are the subject of an ongoing criminal investigation by the Department of Justice. There is little that I can say about this matter beyond assuring you that DOD is cooperating fully with

all Department of Justice inquiries into this matter. DoD was aware of these allegations at the time it was asked to review the export license applications for the launch of Loral's Chinasat-8 satellite in 1998. Those applications were reviewed carefully taking into account all the relevant information available to DoD at that time. DoD's decision to recommend approval of those licenses was based on the facts of those particular cases and on the specific safeguards required by the licenses.

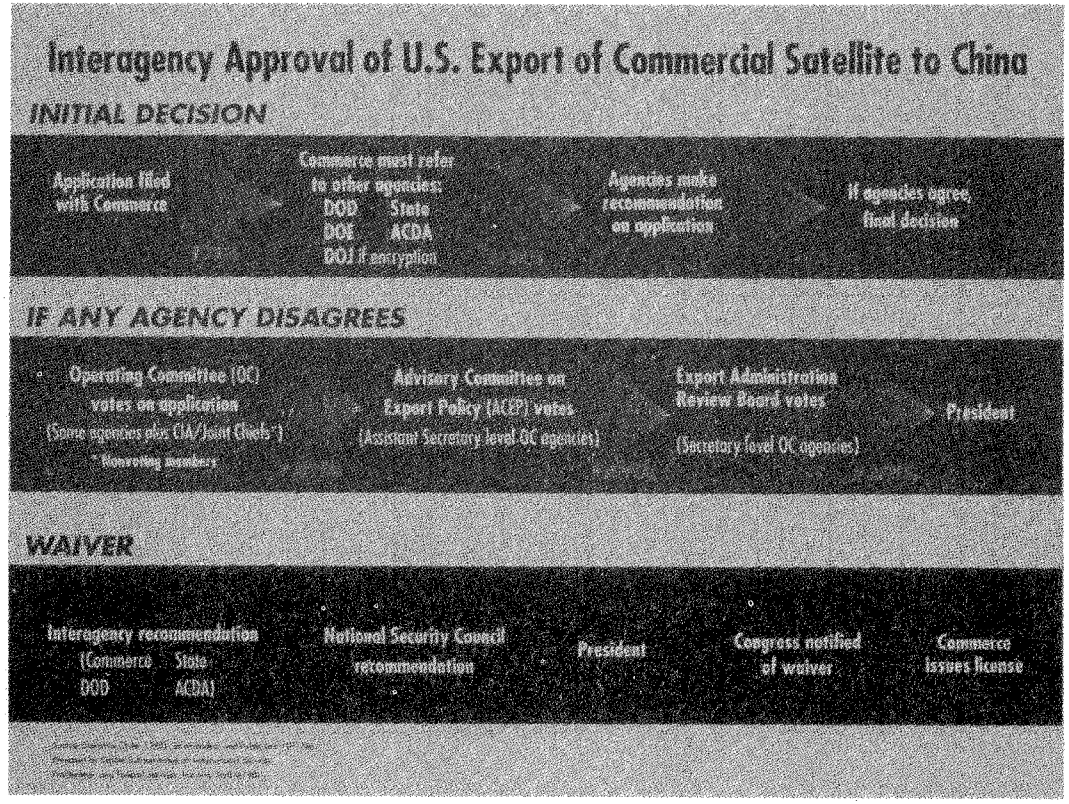
In addition, DOD is cooperating fully with all Congressional inquiries and requests for a broad range of documents. DOD has already provided some documents even as we continue to collect and assemble additional documentation. I should note that the range and scope of those document requests is quite voluminous. We are committed to being fully responsive, but this means taking the time to make sure we are providing all of the materials that you and others have requested.

In summary, DoD takes its overall role in the development and implementation of export control policies very seriously. The case of commercial communication satellites and China presents significant challenges to the U.S. export control system as we seek to ensure that no technology is transferred that would improve China's indigenous missile or satellite capabilities. We believe that the current system protects our national security.

NOTICE TO CONGRESS OF PRESIDENTIAL WAIVERS AND MUNITIONS LIST TRANSFERS RELATED TO U.S. EXPORTS OF COMMERCIAL SATELLITES TO CHINA

EXECUTIVE ACTION	NOTICE TO CONGRESS	CONGRESSIONAL ACTION
Waiver for Asiasat-1	12/19/89	NONE
Waiver for Aussat	4/30/91	NONE
Waiver for Freja	4/30/91	NONE
Waiver for Asiasat-2	9/11/92	NONE
Waiver for Apsat	9/11/92	NONE
Waiver for Intelsat-7A	9/11/92	NONE
Waiver for Starsat	9/11/92	NONE
Waiver for Afrisat	9/11/92	NONE
Waiver for Donfanghong-3	9/11/92	NONE
Waiver for Iridium	7/2/93	NONE
Waiver for Intelsat-8	7/2/93	NONE
Waiver for Echostar	7/13/94	NONE
Waiver for Mabuhay	2/6/96	NONE
Waiver for Cosat-1 & 2	2/6/96	NONE
Waiver for Chinasat-7	2/6/96	NONE
Waiver for APMT	6/23/96	NONE
Waiver for Globalstar	7/9/96	NONE
Waiver for Fengyn-1	11/19/96	NONE
Waiver for SinoSat-1	11/23/96	NONE
Waiver for Chinasat-8	2/18/98	NONE
Transfer of about half of commercial satellites on Munitions List to Commerce Control List	6/15/92	NONE
Transfer of remaining commercial satellites on Munitions List to Commerce Control List	9/20/96	NONE

Prepared by Senate Subcommittee on International Security, Proliferation and Federal Services, Minority Staff (6/98)


Interagency Approval of U.S. Export of Commercial Satellite to China
INITIAL DECISION
Application filed with Commerce
Commerce must refer to other agencies: DOD State DOE ACDA DOJ if encryption
Agencies make recommendation on application
If agencies agree, final decision
IF ANY AGENCY DISAGREES
Operating Committee (OC) votes on application
(Some agencies also CIA/Joint Chiefs*)
* Nonvoting members
Advisory Committee on Export Policy (ACEP) votes
(Assistant Secretary level OC agencies)
Export Administration Review Board votes
(Secretary level OC agencies)
President
WAIVER
Interagency recommendation
(Commerce State DOD ACDA)
National Security Council recommendation
President
Congress notified of waiver
Commerce issues license

STATEMENT OF SENATOR CARL LEVIN
Hearing on
THE ADEQUACY OF COMMERCE DEPARTMENT SATELLITE EXPORT CONTROLS
Subcommittee on International Security, Proliferation, and Federal Services
June 18, 1998

It's been ten years since President Reagan changed our policy with respect to China and approved the export of commercial communications satellites for launch in China. Both President Bush and President Clinton continued that policy. Congress will hopefully look in a bipartisan way at whether the policy is working and whether it is in our national interest to continue it.

Over these past ten years Congress has had ample opportunity to weigh in on this issue. [See chart.] Since Tiananmen Square, Congress has received 20 notices of decisions by the President to export a communications satellite to China. 20 times. 20 waivers. We could have acted to stop satellite exports it we had a concern, but we did not. The same is true with respect to the decision by President Bush in 1992 and by President Clinton in 1996 to shift certain types of commercial satellites from the State Department Munitions List to the Commerce Department Commerce Control List. Congress received 30 days' prior notice in which it could have taken action to disapprove each of these transfers. In fact, with respect to the 1996 transfer ordered by President Clinton, Congress had almost seven months in which to act. The White House issued a press release in March of 1996 announcing the proposed transfer of commercial satellites from the Munitions List to the Commerce Department, and the transfer itself didn't take place until November. That was right in the middle of the appropriations process, where Congress also had the opportunity to block the use of appropriated funds to carry out that transfer. Yet there was not one step taken by anyone in Congress to block the licenses for those individual satellites or to reverse the decision by Presidents Bush and Clinton with respect to the Munitions List.

Moreover, it is the responsibility of Congress to reauthorize the Export Administration Act. We have been unwilling or unable to complete that reauthorization for over 4 years. Reauthorizing the Export Administration Act is a direct opportunity for Congress to address any issue it may have on how Commerce handles "dual-use" items, items which can be used for both commercial and military applications. Yet that legislation has sat unresolved for years.

Now the export of satellites to China is getting our attention because there is the hint of a political advantage to raising it at this time. But we should not allow a legitimate public policy debate over how we should bring China into the world community to be used for partisan purposes. Members of both political parties have argued passionately for and against the export of commercial satellites to China. And both the proponents and the opponents have reasonable and legitimate arguments.

The reality is that our national security interests are on both sides of this question -- it's in our national interest to bring China into the world community and open lines of

communication about democracy and free enterprise; and it's in our national interest not to assist China in improving its military capabilities. Our task is to determine how open we want to be and can be with China on an economic and technological level without affecting our national security. To answer that question, we need to know whether our export controls have been and continue to be adequate.

Until 1994 the United States was a member of the international Coordinating Committee for Multilateral Export Controls, which urged its member nations to control munitions and dual-use and nuclear items in a coordinated fashion according to the agreement of the members. CoCom, as it was called, treated commercial communications satellites as dual-use items and not as munitions. President Bush, therefore, initiated a two-year effort in 1990 to review the State Department's Munitions List to determine what dual-use items should be transferred to the Commerce Control List for licensing. As a result of that review, approximately 1/2 of the commercial communications satellites on the Munitions List, according to GAO, were moved to the Commerce Control List in 1992.

From 1992 to 1996, Members of Congress from both parties as well as some satellite manufacturers pushed for transferring the remaining satellites to Commerce, arguing that communications satellites are not munitions and shouldn't be listed as munitions. In 1996, President Clinton completed the process begun by President Bush and transferred the remainder of the commercial communications satellites from the Munitions List to the Commerce Control List.

But before doing so -- and at the urging of the Departments of State and Defense -- President Clinton changed the Commerce license approval process to strengthen the authority of the Departments of State and Defense to determine what Commerce Department licenses should be issued. (See chart.) It is not an easy or simple process -- nothing is when so many agencies are involved. But the process is not intended to be an easy one. It is intended to allow for a balancing of a range of competing national security, foreign policy and commercial concerns. The current process is a two-track process: one for issuance of an export license, one for presidential waiver. Both the Department of Defense and the State Department have two bites at the apple and three appeals if their position is not heeded, right up to the President.

Today we need to find out if this process, in place for almost two years now, contains adequate safeguards for the licensing of satellites for launch in China. GAO said last week that it was unable to draw a conclusion to that question because it hadn't examined the operation of the two-track process. They have now been tasked to do so, and I expect it will take several months to complete.

Today we have the three agencies most deeply involved in the current process, and, Mr. Chairman, I hope we can make some headway in understanding how the two-track process works and whether it adequately protects our national security.

DEFENSE TECHNOLOGY SECURITY ADMINISTRATION
400 ARMY NAVY DRIVE, SUITE 300
ARLINGTON, VA 22202-2884

June 17, 1998

Honorable Carl Levin
Ranking Minority Member
Subcommittee on International Security, Proliferation,
and Federal Services
Committee on Governmental Affairs
United States Senate
Washington, D.C. 20510-6250

Dear Senator Levin:

I am responding to your letter of June 3, 1998 requesting information regarding DoD's role in the review of commercial communications satellite exports to China. My answers below are keyed to the specific questions in your letter.

Question:

(1) For each of the export licenses issued by the Bush and Clinton Administrations permitting Chinese launches of U.S. built satellites or satellite parts, including the 1998 export licenses for the Loral-built Chinasat-8 satellite, did the Department of Defense:

(a) have an adequate opportunity to review national security concerns prior to approval of the license and ensure the inclusion of appropriate technology security safeguards in the proposed license?

(b) determine that the proposed export license would be consistent with the national security of the United States?

(c) support the approval of the proposed export license?

Answer: For those license requests for U.S. built satellites or satellite parts referred to the Department of Defense for review by the State and Commerce Departments since 1990, DoD has had an adequate opportunity to provide recommendations regarding whether the license would be consistent with U.S. national security, whether the license should be approved or not, and whether the license should include safeguards and

other conditions. While we are still reviewing relevant records, we are not aware of any license having been issued since 1990 without DoD concurrence. However, the license record will show at least one case where DoD had recommended against export of some satellite parts for which Commerce ultimately issued a license. In this instance, senior DTSA officials resolved the objection satisfactorily with Commerce officials and it was approved with DoD's concurrence. The record of DoD's objection was apparently not changed to reflect this outcome. As for the 1998 license requests for the export of the Loral-built Chinasat-8 satellite, DoD conducted a thorough review and recommended approval on all associated licenses referred to DoD by the State and Commerce Departments. Our recommendation was subject to the application of safeguards and other conditions including requirements for DoD monitoring of the satellite launch and associated technical meetings, and DoD review of technical data prior to its transfer to China.

Question:

(2) With respect to the 1998 export licenses for the Loral-built Chinasat-8 satellite, was the Department of Defense aware at the time it was reviewing the proposed license that Loral was under criminal investigation for participating in a post-launch analysis of a failed 1996 launch?

Answer: DoD was aware of these allegations at the time it was asked to review the export license applications for the 1998 launch of Loral's Chinasat-8 satellite. Those applications were reviewed carefully taking into account all the relevant information available to DoD at that time. DoD's decision to recommend approval of those licenses was based on the facts of those particular cases and on the specific safeguards required by the licenses.

Question:

(3) With respect to each transfer by the Bush and Clinton Administrations of commercial satellite technology items from the State Department's Munitions List to the Commerce Department's Commerce Control List, did the Department of Defense:

(a) have an adequate opportunity to evaluate national security concerns prior to the transfer of the commercial satellite technology from one list to another?

(b) determine that the proposed transfer would be consistent with the national security of the United States?

(c) support the proposed transfer from the Munitions List to the Commerce Control List?

Answer: DoD participated fully in the interagency reviews and supported the final decisions by the Bush Administration in 1992 and the Clinton Administration in 1996 to transfer commercial communications satellites from the State Department to Commerce Department jurisdiction.

Sincerely,

Dave Tarbell
Director

United States Department of State

Washington, D.C. 20520

JUN 17 1998

Dear Senator Levin:

This letter is in response to your letter of June 3 to John Barker, in which you seek answers to questions about the government's approval of export licenses permitting Chinese launches of U.S. built commercial satellites.

(1) For each of the export licenses and waivers issued by the Bush and Clinton Administrations permitting Chinese launches of U.S. built satellites or satellite parts, including the 1998 waiver and export licenses for the Loral-built Chinasat-8 satellite, did the Department of State:

(a) have an adequate opportunity to review each proposed license and related waiver prior to its issuance?

We are still reviewing our files. But based on our review to date, we find that the Department of State has had adequate opportunity to review each proposed license application and related waiver prior to its issuance.

(b) support approval of the proposed export license?

The Department of State supported approval of those export licenses that were referred to the Department of State and were ultimately approved, subject to conditions that we required be placed on the export licenses.

The Honorable
Carl Levin,
Subcommittee on International Security,
Proliferation and Federal Services,
United States Senate.

(c) support issuance of a Presidential waiver?

The Department of State supported issuance of each of the Presidential waivers that was ultimately approved.

(2) With respect to the 1998 waiver and export licenses for the Loral-built Chinasat-8 satellite, was the Department of State aware at the time it was reviewing the proposed waiver and licenses that Loral was under criminal investigation for participating in a post-launch analysis of a failed 1996 launch?

The Department of State was well aware of the Justice Department investigation. In the spring of 1996 the Department of State discovered potential violations by U.S. firms and requested the support of the Department of Justice and other U.S. law enforcement agencies in investigating the matter fully.

(3) With respect to each transfer by the Bush and Clinton Administrations of commercial satellite technology items from the State Department's Munitions List to the Commerce Department's Commerce Control List, did the Department of State:

(a) have an adequate opportunity to evaluate foreign policy and other concerns prior to the transfer of the commercial satellite technology from one list to the other?

(b) support the proposed transfer from the Munitions list to the Commerce Control List?

There have been three decisions to remove commercial communications satellites and related items from the United States Munitions List (USML) to the CCL, in 1993, 1996 and 1997.

The State Department was fully involved in these processes and ultimately supported all three decisions, including the 1996 recommendation to the President. In this respect, a number of specific measures were developed to deal with the concerns identified by the Defense and State Departments regarding the transfer of jurisdiction. These additional measures, approved by the President, formed the basis of State Department concurrence in the transfer of jurisdiction.

We hope this information is useful to you. As always, please do not hesitate to contact us if you have further questions.

Sincerely,

Barbara Larkin

Barbara Larkin
Assistant Secretary
Legislative Affairs

From

U. S. Senator Carl Levin

STATEMENT OF SENATOR CARL LEVIN
Hearing on
THE ADEQUACY OF COMMERCE DEPARTMENT SATELLITE EXPORT CONTROLS
Subcommittee on International Security, Proliferation, and Federal Services
July 8, 1998

At our hearing last month, we began an inquiry into whether the current export control process for communications satellites is adequate to protect our national security and promote our national interest. We learned that the current system – established by Executive Order in 1996 and which allows for Commerce to issue the licenses for exports of U.S. made satellites – is a multi-step process that seeks inter-agency agreement and allows for a multi-level appeal process when there is disagreement among the agencies. Each agency -- State, Commerce, Defense, Energy and the Arms Control Disarmament Agency -- has the opportunity to object to the issuance of a license for a communications satellite and force the licensing decision to a higher level -- first to an Assistant Secretary level and if that fails to resolve the differences, to the Secretaries of the respective agencies. If there is still disagreement, the decision goes to the President.

We also learned that for every one of these licenses, because they must have a waiver from the President under the Tiananmen Square sanctions, Congress was given notice that the item had been approved for export. Since 1989 Congress has received official notice of decisions made by Presidents Bush and Clinton to export 20 different communications satellite to China. We could have acted to stop any one or all of these satellite exports if we had wanted to, but we did not. The same is true with respect to the decision by President Bush in 1992 and by President Clinton in 1996 to shift certain types of commercial satellites from the State Department Munitions List to the Commerce Department Commerce

Control List. Congress received 30 days' prior notice in which we could have taken action to disapprove each of these transfers, but we did not.

When I asked each of the witnesses from each of the agencies -- State, Commerce, Defense -- whether they would prefer to undo the actions by Presidents Bush and Clinton and return to the licensing procedures under the previous system -- where all communications satellites are on the Munitions List and licensed by the State Department -- they each said, "no"; it would be "a bad thing" to do. The present system, they testified, "works well" -- it protects our national security and it does so without harming our national interest. The current system allows U.S. commercial interests to be considered and a timetable followed in making the licensing decision while maintaining a coequal role for the national security and foreign affairs interests represented through the Departments of Defense and State. And it is more transparent than the previous system – with clear deadlines for the various steps in the license review process.

Questions remain as to the adequacy of this process. The agencies think it is adequate. GAO says it doesn't know whether the new procedures are adequate or sufficiently effective. It's reviewing the implementation over the past two years and has yet to make that determination. Today's hearing should provide additional relevant information to guide us in reaching our own conclusion.

State Department

China Satellite Licenses

Company	Satellite	Customer	License/ Launch Date	TAA From State?	TTCP Required?	DoD Monitors Required?
Hughes	Asiasat 1	Asia Satellite Telecom. Hong Kong	12/20/89 2/7/90	YES	YES	YES
Hughes	Optus-B1	OPTUS Networks (Australia)	5/2/91 8/14/92	YES	YES	YES
Hughes	Optus-B2	OPTUS Networks (Australia)	5/2/91 12/21/92 (Launch)	YES	YES	YES
Hughes	Apstar-1	APT Satellite Co. Ltd. Hong Kong	8/5/93 7/22/94	YES	YES	YES
Hughes	Apstar-2 (Model 376)	APT Satellite Co. Ltd. Hong Kong	4/8/93 (LITCO Sensor)	YES	YES	YES
Loral	Intelsat VIIA	Intelsat	7/14/93 2/14/94 (Launch)	YES	YES	YES

Commerce Department

China Satellite Licenses

Company	Satellite	Customer	License/ Launch Date	T&A From State?	ITCP Required?	DoD Monitors Required?
Martin Marietta	Asiasat-2	Asia Satellite Telecom. (Hong Kong)	1/7/93	YES	YES Per State T&A	YES
Hughes	Apstar-2 (Model 601)	APT Satellite Co. Ltd. Hong Kong	3/1/94	NO	NO	NO
Hughes	Optus B3	OPTUS Networks (Australia)	8/8/94	NO	NO	NO
Martin Marietta	Echostar-1	Echostar DBS Corp., USA	8/19/94	NO	NO	NO
Martin Marietta	Echostar-2	Echostar DBS Corp., USA	8/10/94	NO	NO	NO
Hughes	Apstar-1A	APT Satellite Co. Ltd. (Hong Kong)	9/23/94	YES	YES Per State T&A	NO
Loral	Apstar-2R	APT Satellite Co. Ltd. (Hong Kong)	12/30/95	YES	YES Per State T&A	YES
Hughes	Chinasat-7	China Telecom. Foundation Satellite Corp.	2/9/96	NO	NO	NO
Loral	Mabuhay	Mabuhay Philippines Satellite Corp.	2/9/96	YES	YES Per State T&A	YES
Lockheed Martin	Chinastar-1	China Great Telecom. Satellite Co. Ltd.	3/10/96	NO	NO	NO
Motorola	Iridium	Iridium LLC	8/31/97	YES	YES Per State T&A	YES
Loral	Chinastar-2	China Aerospace Postal & and Telecom Apparatus Corp.	3/26/98	YES	YES Per State T&A	YES

Monitors are required for present use in accordance consent of other countries

HUGHES

November 30, 1992

U.S. DEPARTMENT OF COMMERCE
Bureau of Export Administration
Office of Technology and Policy Analysis
14th St. & Pennsylvania Ave.
Washington, D.C. 20230

Gentlemen:

We are enclosing a full disclosure of the type of data to be released to Hughes customers for communications satellites now covered by ECCN 9A04A.

This technical data does not disclose any detailed design, development, manufacturing or production information. We therefore believe that the technical data may be released under Department of Commerce general licenses.

Please confirm the Department of Commerce as the appropriate licensing authority for this data and provide us with a determination.

I may be reached at (310) 568-7493 for any further questions you may have.

Respectfully,

HUGHES AIRCRAFT COMPANY

Sarah L. Jones
Export Specialist, Sr.

Enc.

7200 Hughes Terrace . P.O. Box 80008 . Los Angeles, CA 90080-0028

TECHNOLOGY DATA TRANSFER FOR COMMERCIAL COMMUNICATIONS SATELLITE PROGRAMS

1.0 PURPOSE

This document outlines the technical data that will be transferred to Commercial Communications Satellite customers for use exclusively in accordance with the terms of the contracts.

All data made available to the customer and its consultants by Hughes Aircraft Company (Hughes) shall be unclassified.

This data covers all technology in the form of documentation and information (both oral and written) which is provided to customers by Hughes (including all subsidiaries; e.g., Hughes Communications International, Inc. and Hughes Communications Galaxy, Inc.).

2.0 SCOPE

The contracts generally require Hughes to design, fabricate, assemble, test, and deliver commercial communications satellites plus associated ground control software and equipment for integration/launch services and on-orbit test and operations.

3.0 TECHNICAL DATA TO BE TRANSFERRED

Information transferred includes written or oral data. Set forth in this section is a brief description of Hughes data and accompanying technologies which are to be made available to our commercial customers. This technology transfer is specifically limited, however, to that technical information necessary to provide contract compliance. Design analysis and study reports, etc., will be limited generally to analytical results and summary level information. No detailed design technology or manufacturing processes or techniques will be provided.

3.1 Telemetry, Tracking and Control (TT&C Engineering, Operation and Maintenance Data)

Technical information relating to the overall operation of the system to be provided will be restricted to that which will enable performance of the required TT&C operation and intermediate level maintenance activities. This will include a functional description of basic system capabilities of satellite command and data processing. The information will be of such a nature that the overall performance of individual equipment and the interfaces among the equipments will be described.

Other information to be supplied will include signal, control, and data line switching, layout of cabling between subsystems, and rack layouts. Information supplied to support intermediate level maintenance will include circuit diagrams, parts locations, and parts lists.

Customer personnel participation in the performance verification testing of individual units or subsystems, and in overall system level tests, will be limited to standard test procedures and the measurement of quantitative data.

3.2 Satellite System Engineering Data

No technology will be transferred regarding original design concepts, data/information concerning how to design or manufacture spacecraft.

Hughes will not transfer detailed design, manufacturing process or test information which reveals specific methodology for any radiation hardening capability of microelectronic devices.

The following types of system engineering data will be transferred to the extent required to manage the program:

Power Budgets

Charts identifying power usage of individual satellite subsystems against allocated margins and overall power requirements of the satellite will be prepared. This will be a continuous and iterative task during the satellite development process, requiring periodic monitoring and review of the power system design activity and preparation of power budgets and allocations.

Weight Budgets

This task is similar to the power budget task, requiring the continuous monitoring of satellite subsystem weights against allocated weight margins, thus ensuring that the overall satellite weight does not exceed the allocated weight.

Satellite Radiated Power Analysis

This analysis may be performed by either the customer or Hughes system engineers. The task will require the analysis of satellite radio frequency power available for users throughout the regional areas covered by the satellite beam.

Mission Sequences

This requires the preparation of a plan defining the chronological satellite and ground station events which occur during the satellite's transfer orbit and drift orbit. The plan will be prepared in coordination with the orbital planning engineers (see Section 3.5 below), who require knowledge of the anticipated transfer orbit to determine satellite-related events.

Fuel Budgets

This task is similar to the power and weight budget task. It is essentially a task requiring a continuous monitoring of the satellite fuel allocation against the allocated weight, and a monitoring of transfer orbit and on-station fuel requirements to ensure that the satellite has sufficient fuel capacity to fulfill its mission requirements.

Reliability Analysis

This requires analysis of individual satellite subsystems and the overall satellite system in order to determine the reliability of operation over the satellite's mission life. The task will require the analysis of existing system design and component count using standard reliability analysis techniques.

System Test Data Evaluation

The task will include the reduction of test data collected during unit, subsystem and system level tests of the satellites. An evaluation of this data will be made against the expected results and appropriate recommendations made regarding these results.

Training

Satellite system engineering data will be transferred via a training program for selected engineers.

3.3 Satellite System Testing

Customer personnel may participate in the testing of the satellites under test conditions similar to those which they will encounter during actual in-orbit satellite operations. Testing will include check out of specific satellite subsystems such as power, communications, telemetry and command. System level tests will be conducted with the satellite under ambient conditions, in a thermal vacuum chamber to approximate the on-orbit operational conditions and under vibration. Testing will be controlled by equipment similar to that used during the in-orbit operation. Customer personnel will also assist in data reduction and in comparison to expected results.

3.4 Launch Vehicle Integration Services

Hughes will provide launch vehicle integration services and participate with the customer and their launch vehicle provider in a number of launch related activities. This will include spacecraft/launch vehicle interface information, including flight dynamics, safety considerations, weight/envelope data, power conditioning, and related information.

3.5 Orbital Planning

Customer personnel will be involved in the orbital planning activities only to the extent specified below:

Pre-Launch Mission Planning and Analysis

This will include coordination with the launch contractor to determine launch window requirements and constraints, and the preparation of launch constraint documents.

Transfer and Drift Orbit Planning

This includes satellite orbit predictions and earth station visibility, determination of required orbit and attitude maneuvers, and determination of data requirements during transfer and drift orbit.

Station-keeping Planning

This will involve on-station orbit and attitude determination and control, maneuver planning, solar eclipse predictions, ephemeris predictions, and earth station sun-outage predictions.

Technical data on the orbital dynamics software programs involved in this planning will be limited to knowledge of its operation from a user's point of view.

3.6 Satellite Operations Training

Training will be provided at either Hughes or on-site at the customer's control facility. The objective of this training is to provide the required knowledge for the in-orbit operation and control of the satellites.

The training will include classroom lectures on the overall systems operations and operational procedures required to operate, monitor, control and command the satellites. These lectures will be oriented toward the operational features of the satellite. The training will also include simulation exercises on the satellite simulator, on-the-job training in the use of the operational procedures through utilization of the actual facilities and simulated satellite data.

The on-site training will be in the following areas:

1. Overall description of the satellites with emphasis on command and telemetry features, and monitoring of the satellite.
2. Satellite control equipment description with emphasis on control and display capabilities.
3. Satellite command procedures
4. Satellite telemetry procedures
5. Data handling procedures
6. Computer operations
7. Ranging procedures
8. Satellite maneuver procedures
9. Satellite battery management procedures
10. Satellite testing procedures

11. Emergency operating procedures

12. Maintenance of TT&C equipment

3.7 Technical Documentation

The following Technical documentation will be provided:

3.7.1 Ground System Technical Documentation

TT&C Design Review

A copy of the material to be presented at the TT&C Design Review will be provided. This will be restricted to subsystem and system level block diagrams, equipment and site layout diagrams, and equipment schedules.

TT&C Equipment Acceptance Test Plan

System Acceptance Test Plans used by Hughes for the TT&C will be provided. These plans will be used by the TT&C trainees during the test activity.

Spacecraft Operations Procedures

A series of spacecraft operations procedures required for the command, control and monitoring of operations will be provided.

TT&C Operation and Maintenance Manual (O&M)

TT&C O&M Manuals will be provided for each unit. These documents will be used by customer maintenance personnel and will contain operation and maintenance instructions.

TT&C and Orbital Dynamics, Documentation, Software Users Guides and Tapes

Software documentation for all deliverable software will be provided. A list of deliverable software is provided in Section 3.8 below.

3.7.2 Spacecraft Technical Documentation

Specifications

a) Performance parameters of the customer satellite system, subsystems, major components, and critical items.

b) Interface requirements with the launch vehicle.

c) Test and handling specifications.

d) All satellite shipping and storage specifications.

General Test Requirements Documents

Acceptance test procedures for customer spacecraft, their major subsystems and components.

Test Reports

Test reports showing proof of acceptance of customer spacecraft, their major subsystems and components.

Other Documentation

a) Mission planning and analysis documents

b) Launch operations manuals

c) In-orbit test plans and reports verifying that the satellites meet all performances during launch, transfer orbit and drift orbit sequences.

d) Spacecraft log books

e) Material presented at satellite preliminary and final design reviews

f) Test report predicting satellite life on orbit

g) A summary of satellite failures during subsystem and system level tests

h) An overall summary of the spacecraft system to the block diagram level

i) Spacecraft mechanical drawings showing equipment layouts

j) A data package containing a summary of test data discrepancies and open items prior to shipment of the satellite to the launch site

k) A payload integration plan defining the interface requirements (mechanical and electrical) and constraints (i.e., thermal, power, telemetry) of the satellites and the launch vehicle

l) Special analysis reports

m) Periodic progress reports

n) Documentation necessary for evaluation of designs, performance considerations, assessment of test plans and test results or for any other purpose connected with

the design, qualification, launch, acceptance, or operation of the spacecraft, TT&C equipment, and spacecraft ground/airborne support equipment except where provision of such documentation is specifically prohibited.

3.7.3 Centralized Documentation Services

Hughes will establish and operate a centralized documentation service to fulfill the documentation requirements of the customer satellite construction agreement contracts. Such service will be capable of immediately retrieving current information on all aspects of the performance of the contract, reproducing material and forwarding to the customer project office. This service will include definitions of technical interfaces and project changes.

All documentation to be made available or to be delivered will be included in the centralized documentation service. These documentation's include items such as:

a) Test procedures and reports

b) Technical analyses and reports

c) Change reports

d) Equipment location listings

e) Planning and progress reports

f) Progress meeting minutes

g) Action items list

h) Mass property reports

i) Power balance reports

3.8 Computer Software and Documentation

Computer software and documentation to be provided will be limited to the following:

3.8.1 Software programs required for the processing, display, and archiving of telemetry data, generation of satellite commands, and simulation of satellite data.

3.8.2 Software programs to perform satellite orbit and attitude determination, maneuver planning and ephemeris generation during the satellite transfer orbit operation.

3.8.3 Similar programs to perform the same functions during the satellite's drift and synchronous orbit.

3.8.4 Software programs to predict solar eclipse periods and solar outage periods.

3.8.5 Software programs to predict spacecraft propellant life, and solar array and battery performance.

3.8.6 Software programs for the satellite simulator.

3.8.7 Computer software documentation.

a) Copies of all the software documentation normally associated with the purchase of a commercial computer system shall be delivered by Hughes.

b) For software developed by Hughes, the documentation supplied shall include:

- Magnetic tapes containing source codes
- Printer listings of the source code
- User's manuals containing high level flow charts, program description, input and output specifications, and a sample code.

UNITED STATES DEPARTMENT OF COMMERCE
Bureau of Export Administration
Washington, D.C. 20230

01/25/93
CCATS # 35173
Page 1 of 1

HUGHES AIRCRAFT COMPANY
ATTN: SARAH L. JONES
7200 HUGHES TERRACE
P.O. BOX 80008
LOS ANGELES, CA 90080-0028

The following information is in response to your inquiry of 11/20/92 requesting licensing information for:

Commodity	Export Control Commodity Number	Processing Code	Validated License Required for Country Group(s)	GLV Dollar Value Limit
COMMERCIAL COMMUNICATIONS SATELLITE PROGRAMS TECHNICAL DATA AS DESCRIBED * ALSO, MILITARY AND POLICE ENTITIES IN SOUTH AFRICA. ITEMS OTHERWISE ELIGIBLE FOR EXPORT UNDER GENERAL LICENSE MAY REQUIRE AN INDIVIDUAL VALIDATED LICENSE IF THE EXPORTER KNOWS OR IS INFORMED THAT THESE ITEMS WILL BE USED IN ACTIVITIES RELATED TO NUCLEAR, CHEMICAL, OR BIOLOGICAL WEAPONS OR MISSILES.	9E966		SZ*	N/A

The countries included in each Country Group are listed on the reverse side of this form letter. Shipments in any amount to any destination not indicated in the "Validated License Required" column, other than Canada, may be made under the provisions of General License G-DEST. Shipments to Canada for consumption there generally may be made without any license, either validated or general. For shipments of the above commodities to any of the destinations indicated in the validated license required column in excess of the GLV dollar-value limit, the exporter must apply for and obtain a validated license document from the Office of Export Licensing, P.O. Box 273, Washington, D.C. 20044. Shipments within the allowable GLV dollar-value limit may be made under the provisions of General License GLV.

When an export is made, it is necessary for the exporter to show on the Shipper's Export Declaration (Form 7525-V), either the validated export license number or the applicable general license symbol (e.g., GLV, G-DEST, etc.). In addition, the commercial invoice and the bill of lading must show the appropriate destination control notice as quoted on the reverse side of this letter. Form 7525-V is available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, and from many International Trade Administration District Offices (U.S. Department of Commerce). They may also be obtained from certain commercial stationers.

DIRECTOR
TECHNICAL CENTER

Office of Technology and Policy Analysis

FOR INFORMATION CONCERNING
THIS CLASSIFICATION,
CONTACT BRUCE WEBB,
PHONE #: (202)-377-2806
EA/OTPA/CGTC

Destination Control Statement:

1. For validated license shipments (for which the Office of Export Licensing has not authorized reexport):

   "These (commodities) (technical data) licensed by the United States for ultimate destination *(Name of Country)*. Diversion contrary to U.S. law prohibited."

2. For validated license shipments (when the license shows the countries to which reexport has been authorized)

   "These (commodities) (technical data) licensed by the United States for ultimate destination *(Name of Country)*, and for distribution or resale in *(Name of Country(ies))*. Diversion contrary to U.S. law prohibited."

3. For general license shipments:

   "United States law prohibits disposition of these (commodities) (technical data) to the Soviet Bloc,[1] Libya, Laos, the People's Republic of China, North Korea, Vietnam, Cambodia, or Cuba unless otherwise authorized by the United States

   This statement permits distribution and resale to all destinations in the world other than those specially excepted. However, if your commodity can be exported without a validated license to any of the excepted destinations, that destination may be deleted from the statement. Conversely, if the commodity is one that requires a validated license for shipment to a destination, such as Poland, Hungary, or Romania, those zones shall be included as prohibited destinations in the statement.

4. For all shipments to the Republic of South Africa and Namibia made under a validated license or under General License *G-DEST, GLV, GTF-US, G-NNR, GLR, and GTR:*

   "These (commodities) (technical data) licensed by the United States for (Republic of South Africa) (Namibia). Diversion contrary to U.S. law prohibited. Resale to or delivery, directly or indirectly, to or for use by or for police or military entities prohibited."

Country Groups:

Country Group Q includes Romania.

Country Group S includes Libya.

Country Group T includes all of North, Central, and South America, Bermuda and the Caribbean excluding Canada and Cuba.

Country Group V includes all countries not included in any other country group (except Canada).

Country Group W includes Poland and Hungary.

Country Group Y includes Albania, Bulgaria, Czechoslovakia, East Germany (including East Berlin, Estonia, Laos, Latvia, Lithuania, Mongolian People's Republic and the U.S.S.R.

Country Group Z includes Cuba, Cambodia, North Korea, and Vietnam.

Canada is not included in any Country Group and is referred to separately in the export regulations.

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[1] As defined in the destination control statement, the term "Soviet Bloc" means all countries in Group Y, except Laos. Poland, Hungary, Romania, and Yugoslavia are not Y countries.

SPAD-DOS UNCLASSIFIED CJ-116-93

MUNITIONS Case SAVED

Case ID	Class	Short Title
CJ-116-93	U	TECHNOLOGY FOR COMMERCIAL COMSAT PROGRAMS D6

****

Country Codes: XX

Applicant 99999 DEPARTMENT OF DEFENSE, DTSA/TSP (ALLEN COATES)

Intermediate Consignee:

End User: CJ

Case Type 6 ITAR Categories 21

Item Classification U US Quantity 0 Total Value 0

Date In 16/04/93 Last Update 10/05/93 Date Out 07/05/93

Declass Instructions

*Case Description:
CJ REQUEST FOR TRANSFER OF TECHNOLOGY INCLUDING TELEMETRY, TRACKING AND CONTROL ENGINEERING, OPERATION, AND MAINTENANCE DATA; SATELLITE SYSTEM ENGINEERING DATA, ETC. FOR COMMERCIAL COMMUNICATIONS SATELLITE PROGRAMS.

Action Officer OIMUN6 Non-recurring Recoupment Charges

DoD Position S USG Decision Pending Prescreen Microfiche

Staffing:

Agency	Organization	Recommendation	Deferred Agency	Released
DA	DA/TT	F		20/04/93
DF	DF/TT	E		28/04/93
DN	DN/TT	F		07/05/93
OR	DTSA/NT	F		07/05/93
OI	DTSA/NSP	F		23/04/93
NP	NP/TT	F		04/05/93
DG	NSA	E		07/05/93

Keywords
COMMUNICATION SATELLITES
TELEMETRY
TRACKING
CONTROL
MAINTENANCE
SATELLITE COMMUNICATIONS
TECHNOLOGY

Cross Reference Type Cross Reference

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SPAD-DOS UNCLASSIFIED CJ-116-93

MUN Position

Case ID	Date Out	Agency	Organization
CJ-116-93	07/05/93	OI	DTSA/MUN

Recommendation: S Deferral Agency: __ Action Officer: OIMUN6

*Position Text: Classification: U

7 MAY 93

DOD RECOMMENDS SPLIT JURISDICTION

COMMODITY: TECHNICAL DATA FOR COMMERCIAL COMMUNICATIONS SATELLITE PROGRAMS COVERING:

1) TELEMETRY, TRACKING AND CONTROL (TT&C ENGINEERING, OPERATION AND MAINTENANCE DATA): USML JURISDICTION
2) SATELLITE SYSTEM ENGINEERING DATA: USML JURISDICTION
   A) POWER BUDGETS: USML JURISDICTION
   B) WEIGHT BUDGETS: USML JURISDICTION
   C) SATELLITE RADIATED POWER ANALYSIS: USML JURISDICTION
   D) MISSION SEQUENCES: USML JURISDICTION
   E) FUEL BUDGETS: USML JURISDICTION
   F) RELIABILITY ANALYSIS: USML JURISDICTION
   F) SYSTEM TEST DATA EVALUATION: USML JURISDICTION
   F) TRAINING: USML JURISDICTION
3) SATELLITE SYSTEM TESTING: USML JURISDICTION
4) LAUNCH VEHICLE INTEGRATION SERVICES: USML JURISDICTION
5) ORBITAL PLANNING: USML JURISDICTION
   A) PRE-LAUNCH MISSION PLANNING AND ANALYSIS: USML JURISDICTION
   B) TRANSFER AND DRIFT ORBIT PLANNING: USML JURISDICTION
   C) STATION-KEEPING PLANNING: USML JURISDICTION
6) SATELLITE OPERATIONS TRAINING: USML JURISDICTION
7) TECHNICAL DOCUMENTATION CONSISTING OF:
   A) GROUND SYSTEM TECHNICAL DOCUMENTATION
      -- TT&C DESIGN REVIEW: CCL JURISDICTION WHEN RESTRICTED TO SUBSYSTEM AND SYSTEM LEVEL BLOCK DIAGRAMS, EQUIPMENT AND SITE LAYOUT DIAGRAMS, AND EQUIPMENT SCHEDULES
      -- TT&C EQUIPMENT ACCEPTANCE TEST PLAN: CCL JURISDICTION
      -- SPACECRAFT OPERATIONS PROCEDURES: CCL JURISDICTION
      -- TT&C OPERATION AND MAINTENANCE MANUAL (O&M): CCL
      -- TT&C AND ORBITAL DYNAMICS, DOCUMENTATION, SOFTWARE USERS GUIDES AND TAPES: USML JURISDICTION
   B) SPACECRAFT TECHNICAL DOCUMENTATION CONSISTING OF:
      -- SPECIFICATIONS: USML JURISDICTION
      -- ACCEPTANCE TEST PROCEDURES FOR CUSTOMER SPACECRAFT, THEIR MAJOR SUBSYSTEMS AND COMPONENTS: CCL JURISDICTION
      -- TEST REPORTS SHOWING PROOF OF ACCEPTANCE OF CUSTOMER SPACECRAFT, THEIR MAJOR SUBSYSTEMS AND COMPONENTS: CCL
      -- MISSION PLANNING AND ANALYSIS DOCUMENTS: USML
      -- LAUNCH OPERATIONS MANUALS: USML JURISDICTION
      -- IN-ORBIT TEST PLANS AND REPORTS VERIFYING THAT THE

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MUN Position

Case ID	Date Out	Agency Organization
CJ-116-93	07/05/93	OI DTSA/MUN

SATELLITES MEET ALL PERFORMANCES DURING LAUNCH, TRANSFER ORBIT AND DRAFT ORBIT SEQUENCES: CCL JURISDICTION

-- SPACECRAFT LOG BOOKS: NOT ENOUGH INFORMATION

-- MATERIAL PRESENTED AT SATELLITE PRELIMINARY AND FINAL DESIGN REVIEWS: NOT ENOUGH INFORMATION

-- TEST REPORT PREDICTING SATELLITE LIFE ON ORBIT: CCL

-- A SUMMARY OF SATELLITE FAILURES DURING SUBSYSTEM AND SYSTEM LEVEL TESTS: CCL JURISDICTION

-- AN OVERALL SUMMARY OF THE SPACECRAFT SYSTEM TO THE BLOCK DIAGRAM LEVEL: CCL JURISDICTION

-- SPACECRAFT MECHANICAL DRAWINGS SHOWING EQUIPMENT LAYOUTS: NOT ENOUGH INFORMATION

-- A DATA PACKAGE CONTAINING A SUMMARY OF TEST DATA DISCREPANCIES AND OPEN ITEMS PRIOR TO SHIPMENT OF THE SATELLITE TO THE LAUNCH SITE: CCL JURISDICTION

-- A PAYLOAD INTEGRATION PLAN DEFINING THE INTERFACE REQUIREMENTS (MECHANICAL AND ELECTRICAL) AND CONSTRAINTS (I.E., THERMAL, POWER, TELEMETRY) OF THE SATELLITES AND THE LAUNCH VEHICLE: NOT ENOUGH INFORMATION

-- SPECIAL ANALYSIS REPORTS: NOT ENOUGH INFORMATION

-- PERIODIC PROGRESS REPORTS: NOT ENOUGH INFORMATION

-- DOCUMENTATION NECESSARY FOR EVALUATION OF DESIGNS, PERFORMANCE CONSIDERATIONS, ASSESSMENT OF TEST PLANS, AND TEST RESULTS OR FOR ANY OTHER PURPOSE CONNECTED WITH THE DESIGN, QUALIFICATION, LAUNCH, ACCEPTANCE, OR OPERATION OF THE SPACECRAFT, TT&C EQUIPMENT, AND SPACECRAFT GROUND/AIRBORNE SUPPORT EQUIPMENT: USML JURISDICTION

C) CENTRALIZED DOCUMENTATION SERVICES: USML JURISDICTION, TO INCLUDE ITEMS SUCH AS:

-- TEST PROCEDURES: USML JURISDICTION

-- TECHNICAL ANALYSES AND REPORTS: USML JURISDICTION

-- CHANGE REPORTS: USML JURISDICTION

-- EQUIPMENT LOCATION LISTINGS: USML JURISDICTION

-- PLANNING AND PROGRESS REPORTS: USML JURISDICTION

-- PROGRESS MEETING MINUTES: USML JURISDICTION

-- ACTION ITEMS LIST: USML JURISDICTION

-- MASS PROPERTY REPORTS: USML JURISDICTION

-- POWER BALANCE REPORTS: USML JURISDICTION

8) COMPUTER SOFTWARE AND DOCUMENTATION: USML JURISDICTION

1. THOSE ITEMS IDENTIFIED ABOVE AS BEING UNDER USML JURISDICTION FALL UNDER USML CATEGORY XV(e). THE LEVEL OF DETAIL INHERENT IN THE TECHNICAL DATA WOULD SIGNIFICANTLY CONTRIBUTE TO THE MILITARY CAPABILITY OF A FOREIGN COUNTRY. FOR EXAMPLE, A PARTICULAR VULNERABILITY IS PRESENT IN THE POWER BUDGET AND SATELLITE RADIATED POWER ANALYSIS DATA (ITEM 2 ABOVE). COMMERCIAL SATELLITE COMMUNICATIONS SYSTEMS ARE DIRECTLY RESPONSIVE TO UPLINK EARTH

MUN Position

Case ID	Date Out	Agency Organization
CJ-116-93	07/05/93	OI DTSA/MUN

TERMINALS. POWER ALLOCATIONS FROM SATELLITE TRANSPONDERS ARE DERIVED FROM UPLINK POWER LEVELS GENERATED FROM THE EARTH TERMINAL. THEREFORE, THERE IS AN INHERENT VULNERABILITY TO SATELLITE JAMMING FROM EARTH TERMINALS. SUCH JAMMING WOULD DENY DOD USERS THE USE OF THE LINKS THAT ARE ASSIGNED. BRUTE FORCE JAMMING IS DETECTABLE AND CAN BE COUNTERED OVER TIME WITH MILITARY INTERVENTION. HOWEVER, WITH DETAILED KNOWLEDGE OF LINK BUDGET AND SATELLITE RADIATED POWER ANALYSIS, JAMMING ACTIVITY CAN BE VERY SOPHISTICATED, WITH A MUCH LOWER LEVEL OF DETECTION AND IDENTIFICATION. DETAILED KNOWLEDGE OF LINK BUDGETS WOULD ALLOW JAMMERS TO INTERFERE WITH SPECIFIC COMMUNICATIONS LINKS WITH A VERY LOW RISK OF TIMELY DETECTION OR IDENTIFICATION. FURTHER, THE DATA IDENTIFIED AS USML IS NOT CONSIDERED TO BE THE TYPE OF TECHNICAL DATA EXCLUDED FROM USML JURISDICTION IN THE LAST HALF OF CATEGORY XV(e).

2. THOSE ITEMS IDENTIFIED ABOVE AS BEING UNDER CCL JURISDICTION ARE CONSIDERED TO BE TECHNICAL DATA NECESSARY AND REASONABLE FOR A PURCHASER TO HAVE ASSURANCE THAT A U.S.-BUILT ITEM INTENDED TO OPERATE IN SPACE HAS BEEN DESIGNED, MANUFACTURED, AND TESTED IN CONFORMANCE WITH SPECIFIED CONTRACT REQUIREMENTS AND TO OPERATE AND MAINTAIN ASSOCIATED GROPUND SUPPORT EQUIPMENT.

REMARKS FOR STATE/ODTC:

A. ON 30 NOV 92 HUGHES AIRCRAFT COMPANY REQUESTED DETERMINATION OF LICENSING AUTHORITY FROM THE DEPARTMENT OF COMMERCE FOR THE TYPES OF TECHNICAL DATA LISTED ABOVE. WITHOUT STATE/DOD REVIEW, COMMERCE ISSUED A COMMODITY CLASSIFICATION (# 33173) PLACING THE DATA UNDER ECCN 9E96G. AS A RESULT, A GENERAL LICENSE (G-DEST) WAS ISSUED ON 25 JANUARY 1993 FOR THE PRC AND HUGHES CAN NOW LEGALLY EXPORT TECHNICAL DATA AND KNOW-HOW THAT COVERS THE DESIGN, FABRICATION, TEST, ASSEMBLY, AND DELIVERY OF COMMUNICATIONS SATELLITES AND

********** CONTINUED IN CJ-116-93X **********

*Comments: Classification: U

THE WHITE HOUSE

WASHINGTON

June 22, 1998

98 JUN 24 AM 10: 3

Dear Senator Cochran:

Thank you for your letter regarding the current process by which Presidential national interest waivers are granted for the launch of U.S.-manufactured satellites by China. The relevant waiver provision -- section 902(b), P.L. 101-246 -- is part of the Tiananmen Square sanctions law.

The waiver process is the same now as it was prior to the 1996 jurisdictional transfer. Before the transfer, Commerce licensed some commercial satellites and some technical data, while State licensed the remaining commercial satellites and technical data, plus military satellites. Even for satellites licensed by Commerce, a State license was often required for the associated transfer of technical data. Regardless of which agency had licensing jurisdiction, that agency was responsible for obtaining interagency concurrence on the license before recommending that the President issue a national interest waiver to allow the license to be issued. Thus, the National Security Council staff did not process a waiver recommendation until Defense and State had reviewed the underlying license on national security grounds.

This process has not changed since the 1996 jurisdiction transfer. As before, waiver recommendations may come from State or from Commerce (depending on which receives the first license application for the particular project). As before, the underlying license has been reviewed by Defense and State to address national security concerns before the waiver recommendation reaches the National Security Council staff. The 1998 Loral waiver, for example, was recommended by State because the company first sought a State license for the transfer of technical data, and that license application was thoroughly reviewed by Defense and State before the waiver was recommended.

Once the waiver recommendation reaches the National Security Council staff, the process followed for granting the waiver is the same regardless of which agency recommended the waiver, State or Commerce. The "national interest" waiver standard requires that the President take into account a broad range of interests. The most important interest is U.S. national security. The National Security Council staff confirms that

these interests have been addressed in the course of Defense and State review of the license application. This includes consideration of how the proposed satellite export will complement our ongoing efforts to encourage more responsible Chinese nonproliferation behavior. The President also considers foreign policy interests affected by the satellite project, such as promoting more open lines of communication to the Chinese people and advancing our policy of engagement with China. Finally, the U.S. economic interest in the project is considered -- for example, whether granting the waiver will support the competitiveness of the U.S. commercial satellite and telecommunications industries.

Please let me know if I can be of additional assistance as you review this issue.

Sincerely,

Samuel R Berger

Samuel R. Berger
Assistant to the President
for National Security Affairs

The Honorable Thad Cochran
United States Senate
Washington, D.C. 20510-2402

United States Department of State

Bureau of Politico-Military Affairs
Office of Defense Trade Controls

Washington, D.C. 20522-0602

In reply refer to
ODTC Case: CJ 116-93

SEP 17 1993

COMMODITY JURISDICTION FOR: Data Outlined in Hughes Aircraft Company's Undated Document Entitled, "Technology Data Transfer For Commercial Communications Satellite Programs"

The purpose of this letter is to inform you of a recent commodity jurisdiction on the subject data. This commodity jurisdiction (CJ) request was referred to the Departments of Commerce and Defense and the National Aeronautics and Space Administration for their review and recommendations. As a result, the Department of State has determined that the data outlined in this document is subject to the licensing jurisdiction of the Department of Commerce. Please consult that agency's Office of Technology and Policy Analysis at (202) 482-4145 to determine their requirements prior to export.

Additionally, as paragraph 3.0 of the subject document states, the data transfered as a result of this document is specifically limited to that technical information necessary to provide contract compliance. This technical information will be limited to analytical results and summary level information. This ruling does not include technical data for launch vehicle/satellite compatibility, integration, or processing. Finally, this ruling does not cover detailed design technology, or manufacturing processes or techniques.

Should you require further assistance on this matter, please contact Maj. Gary M. Oncale at (703) 875-5655.

Sincerely,

William B. Robinson
Director
Office of Defense Trade Controls

Hughes Aircraft Company
7200 Hughes Terrace
P.O. Box 45066
Los Angeles, CA 90045

HUGHES
SPACE & COMMUNICATIONS
A HUGHES ELECTRONICS COMPANY

October 8, 1997

Export Classification Request

U.S. Department of Commerce
14th St. and Pennsylvania Ave. NW
Room H1099D
Washington, DC 20230

SUBJECT: Commerce Dept. Jurisdiction Technical Data
Delivered Under Notes 2 & 6 to ECCN 9A004

To Whom It May Concern:

In accordance with EAR Part 748.3, Hughes Space and Communications Company requests the ECCN and License Exception for the following technical data which is provided to the launch service provider for the launch of commercial communications satellites controlled by ECCN 9A004:

form, fit and function
mass
electrical
mechanical
dynamic/environmental
telemetry
safety
facility
launch pad access
launch pad parameters

All of this data generated by Hughes (the spacecraft manufacturer) describes the interface requirements for the mating of the satellite to the launch vehicle and parameters for the launch. We believe that this data is classified as EAR99, exportable under Commerce License Exception NLR.

In addition, Hughes Space and Communications Company requests the ECCN and License or License Exception for the technical data which is normally delivered to customers/operators of commercial communication satellites, described in CCATS #33173 dated 1/25/93(copy attached). Per the technical data description attached to the CCATS this data includes Telemetry, Tracking and Control(TT&C) Maintenance Data, Satellite System data such as power, weight and fuel budgets, observance of satellite test, operational training for customer personnel .

Since there is some difference of opinion as to what event triggers the ability to utilize a Commerce Dept. License Exception, please clarify conditions under which the exception is applicable.

If you have any questions, please feel free to contact me at (310)364-6868.

Sincerely,

M. E. Mersch

M.E. Mersch
Manager, Export Compliance
Hughes Space and Communications Company