

# A P P E N D I C E S

**Appendix A:** The Investigation

**Appendix B:** Members and Staff

**Appendix C:** H. Res. 463

**Appendix D:** Hearings and Meetings

**Appendix E:** Interviews, Depositions,  
and Document Requests

**Appendix F:** Glossaries

## SCOPE OF THE INVESTIGATION

The Select Committee on U.S. National Security and Military/Commercial Concerns with the People's Republic of China (the Select Committee) was established pursuant to House Resolution 463, adopted on June 18, 1998 (included at Appendix C). The Resolution authorized the Select Committee to investigate a broad range of issues relating to the transfer of U.S. technology to the People's Republic of China. The Select Committee was charged with, among other things, the responsibility to investigate any transfers of technology, information, advice, goods, or services that may have contributed—

- **To the enhancement of the accuracy, reliability, or capability of the PRC's nuclear-armed intercontinental ballistic missiles or other weapons**
- **To the manufacture of weapons of mass destruction, missiles, or other weapons**
- **To the enhancement of the PRC's intelligence capabilities**

The Select Committee was also given the responsibility to assess the impact of such enhancements on U.S. regional or national security interests.

Faced with a broad mandate and limited time in which to complete its investigation and report to the House (effectively from July 1998 to the end of December 1998), the Select Committee necessarily focused on a limited number of issues. The Select Committee focused on the allegations relating to the Loral and Hughes launch failures; U.S. policies and practices regarding exports of high performance computers to the PRC; U.S. policies and practices regarding exports of machine tools and other advanced manufacturing technologies to the PRC; PRC activities targeted against U.S. technology; and the role of PRC espionage, including PRC-owned or dominated commercial entities in the United States, in the transfer of technology from the United States to the PRC.



H. Res. 463 also authorized the Select Committee to investigate PRC attempts to influence technology transfers through campaign contributions or other illegal means. In light of the fact that two other committees of the Congress have been engaged in the same inquiry and had begun their efforts long before the Select Committee's formation, the Select Committee did not undertake a duplicative review of these same issues. The Select Committee did, however, contact key witnesses who could have provided new evidence concerning such issues.

**T**he Select Committee's efforts to obtain testimony from these witnesses were unsuccessful, however, because the witnesses either declined to testify on Fifth Amendment grounds or were outside the United States. Because the Select Committee was unable to pursue questions of illegal campaign contributions anew, no significance should be attributed, one way or the other, to the fact that the Select Committee has not made any findings on this subject. The same is true with respect to other topics as to which time constraints or other obstacles precluded systematic inquiry.

Much of the information gathered by the Select Committee is extremely sensitive, highly classified, or proprietary in nature. In addition, the Select Committee granted immunity to, and took immunized testimony from, several key witnesses. Pursuant to an agreement reached with the Justice Department, this testimony must be protected from broad dissemination in order to avoid undermining any potential criminal proceedings by the Justice Department.

In attempting to evaluate the potential national security implications of various technology transfers, the Select Committee staff met with representatives of numerous Executive departments and agencies, the National Laboratories, other laboratories engaged in government research, and various private companies, think tanks, and academic institutions. In addition, the Select Committee retained a firm of respected sci-



entists with significant experience to provide an independent evaluation of a broad range of technology transfer issues.

**B**eginning in June 1998, the Select Committee received briefings and conducted hearings to receive testimony from U.S. Government officials, private sector experts, and key witnesses in the matters under investigation. The Select Committee's work continued during the August recess of the Congress, when 10 additional days of hearings were held. Full-scale investigative activity continued during September, October, November and December 1998, even while this Report was being written.

The Select Committee's proceedings were conducted in an extraordinarily bipartisan manner. The Select Committee relied heavily on a non-partisan Joint Investigative Staff of experienced investigators and technical experts to conduct its investigative activities. The Joint Investigative Staff, led by the Chief Investigative Counsel, worked closely with the Select Committee's Majority and Minority staffs.

Despite the short period of time available, the Select Committee was able to accomplish a significant amount of information collection and analysis. The staff conducted nearly 700 hours of interviews and depositions of more than 150 individuals. In 21 instances, the Select Committee issued subpoenas to require individuals to submit to questioning; in four instances use immunity was granted to compel testimony.

The Select Committee met 34 times to conduct formal business and to hear testimony, typically in executive session to hear classified and other sensitive, law enforcement, and proprietary information. More than 150 hours of testimony was heard from more than 75 different witnesses. Finally, the Select Committee reviewed over 500,000 pages of evidentiary material received from public and private sources.



## INVESTIGATIVE ISSUES

The Select Committee's investigative efforts generally were highly successful, especially in view of time and resource constraints. The investigation did, however, encounter certain issues that warrant mention.

---

**CIA and Hughes.** The Select Committee's attempts to investigate allegations made by a CIA analyst were made more difficult by certain actions of the CIA. The analyst had alleged that, while visiting Hughes in 1995, he had come across information indicating that technical data had been improperly passed by Hughes to the PRC in connection with the 1995 failure investigation, and that the CIA had ignored his request for a formal report to CIA Headquarters to that effect. As part of its investigation of Hughes' conduct in 1995, the Select Committee had previously determined that it should interview several of the Hughes employees from whom the CIA analyst said he had obtained his information since they were known to have played a part in the failure investigation.

Because the CIA analyst could not remember the names of the Hughes employees with whom he had spoken, the Select Committee asked the CIA to retrieve the information from its files. The CIA did so, but also, without the prior knowledge of the Select Committee, advised Hughes not only that the Select Committee might seek to interview these employees, but also of the lines of questioning that the Select Committee probably would pursue. The Select Committee was concerned that this notification may have inadvertently given Hughes the opportunity to destroy relevant evidence and allowed its employees to be less than candid. The Select Committee considered this action by CIA to be ill-advised and an impediment to this aspect of its investigation. The Senate Select Committee on Intelligence, which was separately investigating this matter of the CIA analyst, made a formal notification of the matter to the Justice Department. Justice was also already investigating the conduct of Hughes employees. The Justice Department had not yet concluded its investigation at the time of this report.

The CIA's official explanation for its actions was that it notified Hughes as a



courtesy. The CIA denies that its notification to Hughes was intended in any way to interfere with the Justice Department or Congressional investigations that were then under way.

The Select Committee is disappointed about the lack of judgment that CIA personnel showed in this matter by not coordinating the CIA's communication with Hughes on this matter with the Select Committee prior to the event. The decision to advise Hughes about the Select Committee's intentions was discussed at length within the CIA and was approved by, among others, the CIA's Principal Deputy General Counsel and Deputy Director for Congressional Affairs. Because their personal counsel advised certain CIA employees not to make themselves available to the Select Committee during the pendency of the Justice Department investigation, the Select Committee was unable to interview all the CIA personnel who were involved in this matter. However, based on the information the Select Committee has been able to obtain on this matter, the Select Committee believes that at no time in the course of the many internal discussions and exchanges of correspondence did any of the CIA employees involved voice any concern about the adverse effects their proposed course of action might have on the Justice Department or Congressional investigations that were under way, nor even of the impact that lack of notice of this action might have on relations between the CIA and those entities.

Remedial action is needed at the CIA to ensure that employees are made more sensitive to the implications of their activities as they relate to on-going investigations by Congress and law enforcement agencies. Steps also should be taken to ensure that competent legal advice is available to CIA personnel. The Select Committee understands that, in addition to the Justice Department, the House and Senate Intelligence Committees are reviewing this matter.

---

**Privilege Claims.** A significant issue that arose in connection with the Select Committee's investigation related to assertions of attorney-client privilege. While Congress traditionally has reserved to itself the right to reject such claims, the assertion of such privilege raises concerns beyond Congressional investigations. Furthermore, the contempt remedy raises timing concerns, particularly for a time-limited committee.



The most serious and contentious assertion of attorney-client privilege arose in connection with testimony taken from Eric Zahler, the General Counsel of Loral Space and Communications, the parent company of Space Systems/Loral; Julie Bannerman, Space Systems/Loral's General Counsel; and Michael Poliner, a lawyer from the firm of Feith & Zell who conducted an internal investigation of the Independent Review Committee's conduct for Loral and helped prepare the company's disclosure to the State Department. Loral agreed that it had waived the attorney-client privilege with regard to communications in its "voluntary" disclosure. However, all three witnesses refused on the basis of the attorney-client privilege to answer questions regarding any information that came into their possession after the first grand jury subpoenas were served on Loral and its employees in the Justice Department's investigation of possible criminal violations. In addition, various Hughes and Loral employees were instructed by their counsel not to answer questions related to relevant facts that they learned in the course of discussions after that date at which a Loral attorney was present.

Even under the attorney-client privilege rules that apply in the Judicial branch, a serious question arises as to whether such claims were valid. Although Loral argued to the contrary, there is substantial and compelling case law suggesting that in making a voluntary disclosure to the U.S. Government that included attorney-client communications and purported to be a full and complete rendition of the facts surrounding the Independent Review Committee incident, Loral waived the attorney-client privilege with respect to all information on the same topic that Loral or its employees communicated to the company's counsel, regardless of when that communication occurred.

Companies make voluntary disclosures in the hope that by doing so they will convince the U. S. Government not to pursue any enforcement action or, if an action is taken, that the penalty will be mitigated. Thus, it is against sound public policy to permit a company to make what may be an incomplete or inaccurate voluntary disclosure in which it reveals exculpatory attorney-client communications in the hope that no further investigation will ensue and then, when that hope is disappointed, to use the attorney-client privilege as a shield against disclosure of additional or inconsistent facts that emerge once counsel undertakes a subsequent defense in a law



enforcement investigation. Such a rule would only encourage companies to file misleading disclosures and their counsel to do a less than thorough job of investigating possible illegal activity.

Nonetheless, Loral's attorneys argued to the Select Committee that to hold in favor of enforcing a waiver of attorney-client privilege regarding communications voluntarily made by a corporation would be against the public policy of encouraging voluntary disclosures. The Select Committee believes that there is a greater public interest in ensuring that disclosures are full, complete, and accurate and that a possible response, were this point of view to be accepted, would be to take appropriate action to ensure that any party that files a voluntary disclosure relating to possible export control violations be required, as part of that disclosure, to acknowledge that this constitutes a plenary waiver of the attorney-client privilege with respect to the possible violation.

---

**Justice Department objections.** When the Select Committee began its investigation, the U.S. Attorney for the District of Columbia already had been engaged for a considerable time in an investigation of the Loral and Hughes disclosures and, presumably, had collected a large body of documentation and witness testimony. When the Select Committee requested that various Executive departments and agencies comment on their understanding of certain issues involved in the Loral and Hughes cases, it discovered that these departments and agencies had not been provided information by the Justice Department about the progress of its investigation and that they believed that the pendency of the Justice Department investigation was a deterrent to their pursuing their own investigations and analyses.

As a result, the Select Committee was forced to expend a major part of its available investigative resources in retracing the Justice Department's steps, often in the face of protests from Justice Department officials that to talk to certain potential witnesses might undercut the criminal investigation. In addition, a variety of Executive departments and agencies refused initially to provide the Select Committee with copies of requests for information that had been received from the Justice Department and even, in some cases, with copies of documents that had been produced to Justice in response to those requests. Despite substantial and continuing efforts, even with the





assistance of the Deputy Attorney General's office, production of much of this material to the Select Committee was delayed for substantial periods of time.

With all due deference to the importance of criminal investigations, the Select Committee believes that national security interests frequently are at least as great, if not paramount. There appears to be no established means, however, by which the Executive departments and agencies engaged in regulatory, administrative, or intelligence functions that could benefit from an awareness of what is being learned in a criminal investigation can be apprised in any timely or complete manner of such information. This is an issue that the Select Committee also believes should be addressed.

---

**Inability to survey Defense Technology Security Administration employees regarding agency management issues.** Two mid-level DTSA employees alleged that DTSA is a problem-plagued organization in which DTSA senior management rules with a heavy hand. As a consequence, morale is poor. According to the two employees, DTSA senior managers frequently overruled valid national security concerns when formulating the Defense Department's position on dual-use license applications. Among other things, they also expressed the view that DTSA's recent transfer from the Office of the Secretary of Defense to the Defense Threat Reduction Agency (DTRA) will further weaken and isolate the organization, whose role has already been diminished in the interagency licensing process. Both were critical of current DTSA management and characterized it as secretive and heavy-handed.

The Select Committee was unable to conduct a thorough evaluation of the validity of these concerns due to time limitations and the lack of cooperation by the Defense Department. The Defense Department refused to allow the Select Committee to interview DTSA personnel on these matters unless a Defense Department observer was present. The Select Committee attempted to reach an accommodation by proposing that it interview only the five or six most senior DTSA personnel and conduct a written survey of DTSA personnel regarding these morale and management issues. The Defense Department refused to permit either the interviews or the survey.



## MEMBERS OF THE SELECT COMMITTEE



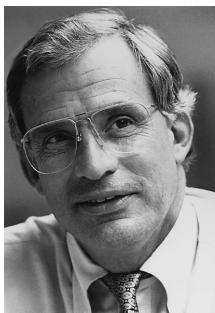
**REP. CHRISTOPHER COX** (R-CA) — Chairman

Elected: 1988  
Born: October 16, 1952, St. Paul, MN  
Home: Newport Beach, CA  
Education: BA 1973 University of Southern California; MBA, JD 1977 Harvard University  
Career: 1986-88 Senior Associate Counsel to the President, the White House; 1984-88 Founder, Context Corporation; 1984-86 Partner, Latham & Watkins; 1982-83 Lecturer, Harvard Business School; 1978-82 Associate, Latham & Watkins; 1977 Clerk, U.S. Court of Appeals, Judge Herbert Choy  
Committees: Chairman, House Policy Committee; Vice Chairman, Committee on Government Reform and Oversight; Vice Chairman, Subcommittee on Investigations and Oversight, Committee on Commerce



**REP. NORM DICKS** (D-WA) — Ranking Democrat

Elected: 1976  
Born: December 16, 1940, Bremerton, WA  
Home: Bremerton, WA  
Education: BA 1963 University of Washington; JD 1968 University of Washington  
Career: 1973-76 Administrative Assistant, U.S. Senator Warren Magnuson; 1968-73 Legislative Assistant, U.S. Senator Warren Magnuson  
Committees: Ranking Member, Permanent Select Committee on Intelligence; Ranking Member, Interior Subcommittee, Committee on Appropriations



**REP. PORTER GOSS** (R-FL) — Vice Chairman

Elected: 1988  
Born: November 26, 1938, Waterbury, CT  
Home: Sanibel, FL  
Education: BA 1960 Yale University  
Career: 1960-62 Army Intelligence; 1960-71 Central Intelligence Agency; 1973-78 Businessman, Newspaper publisher; 1974-82 Sanibel City Council; 1974-77, 1980 Sanibel Mayor; 1983-88 Lee County Commissioner  
Committees: Chairman, Permanent Select Committee on Intelligence; Chairman, Subcommittee on Legislative and Budget Process, Committee on Rules





**REP. DOUG BEREUTER (R-NE)**

Elected: 1978  
Born: October 6, 1939, York, NE  
Home: Cedar Bluff, NE  
Education: BA 1961 University of Nebraska; MCA 1966 Harvard University; MPA 1973 Harvard University  
Career: 1963-65 Army; 1965-66 Urban planner, U.S. Dept. of Housing and Urban Development; 1967-68 Division Director, Nebraska Economic Development Department; 1968-70 Director, Nebraska Office of Planning and Programming; 1974-78 Member, Nebraska State Legislature  
Committees: Vice Chairman, Committee on International Relations; Chairman, Subcommittee on Asia and the Pacific, International Relations Committee; Committee on Banking and Financial Services



**REP. JAMES V. HANSEN (R-UT)**

Elected: 1980  
Born: August 14, 1932, Salt Lake City, UT  
Home: Farmington, UT  
Education: BS 1960 University of Utah  
Career: 1950-54 U.S. Navy; 1961-80 Insurance agent; 1970-80 Land developer; 1960-72 Farmington City Council; 1972-80 Member, Utah House of Representatives; 1978-80 Speaker, Utah House of Representatives  
Committees: Chairman, Committee on Standards of Official Conduct; National Security Committee; Chairman, National Parks and Public Lands Subcommittee, Committee on Resources



**REP. JOHN SPRATT (D-SC)**

Elected: 1982  
Born: November 1, 1942, Charlotte, NC  
Home: York, SC  
Education: AB 1964 Davidson College; MA 1966 Oxford University; LLB 1969 Yale University  
Career: 1969-71 U.S. Department of Defense; 1971-82 Practicing attorney; 1973-82 President, Bank of Fort Mill; 1973-82 President, Spratt Insurance Agency  
Committees: Committee on National Security; Ranking Member, Budget Committee



## MEMBERS OF THE SELECT COMMITTEE



### **REP. CURT WELDON (R-PA)**

Elected: 1986  
Born: July 22, 1947, Marcus Hook, PA  
Home: Aston, PA  
Education: BA 1969 West Chester State College  
Career: 1969-76 Teacher, Vice Principal; 1976-81 Director of Training and Manpower Development, CIGNA Corp.; 1977-82 Marcus Hook Mayor; 1981-86 Member, Delaware County Council; 1985-86 Chairman, Delaware County Council  
Committees: Chairman, Subcommittee on Military Research and Development, Committee on National Security; Committee on Science



### **REP. LUCILLE ROYBAL-ALLARD (D-CA)**

Elected: 1992  
Born: June 12, 1941, Los Angeles, CA  
Home: Los Angeles, CA  
Education: BA 1969 California State University-Los Angeles  
Career: 1986-92 Member, California Assembly  
Committees: Committee on Banking and Financial Services; Budget Committee



### **REP. ROBERT (BOBBY) SCOTT (D-VA)**

Elected: 1992  
Born: April 30, 1947, Washington, DC  
Home: Newport News, VA  
Education: BA 1969 Harvard University; JD 1973 Boston College School of Law  
Career: 1970-73 Army National Guard; 1973-76 Army Reserves; 1973-91 Practicing attorney; 1977-82 Member, Virginia House of Delegates; 1983-92 Member, Virginia State Senate  
Committees: Committee on Education and the Workforce; Ranking Member, Subcommittee on the Constitution, Committee on the Judiciary





## STAFF OF THE SELECT COMMITTEE

**C. Dean McGrath, Jr.** *Staff Director*

former Deputy Assistant to the President and Deputy Staff Secretary, the White House;  
former Associate Counsel to the President, the White House;  
former Special Assistant U.S. Attorney, U.S. Department of Justice

---

**Brent Bahler** *Director of Communications*

former Press Secretary to Senator Robert J. Dole;  
former Director of Public Affairs, U.S. National Transportation Safety Board

**Americo Cinquegrana** *Chief Investigative Counsel*

Deputy Inspector General, Central Intelligence Agency;  
former Deputy Counsel for Intelligence Policy to the Attorney General of the United States

**Michael Davidson** *Minority Counsel*

former U.S. Senate Legal Counsel; former Special Investigation Counsel,  
U.S. Senate Government Affairs Committee

**Dr. Alexander Flax** *Senior Consultant\**

former President of the Institute for Defense Analysis; former Director of the National  
Reconnaissance Office; former U.S. Delegate to the NATO Advisory Group for Aerospace  
Research and Development

**Lewis Libby** *Legal Advisor*

former Director of Special Projects, Bureau of East Asian and Pacific Affairs, U.S.  
Department of State; former Deputy Undersecretary for Policy, U.S. Department of Defense

**Richard Meltzer** *Chief Minority Counsel*

former Chief Minority Counsel, U.S. House International Affairs Subcommittee on  
Iranian Arms Transfers to Bosnia

**Nicholas Rostow** *Deputy Staff Director and Counsel*

former Legal Advisor, National Security Council

**Daniel Silver** *General Counsel*

former General Counsel, Central Intelligence Agency;  
former General Counsel, National Security Agency

**Michael Sheehy** *Special Minority Counsel*

Special Minority Counsel, U.S. House Permanent Select Committee on Intelligence;  
former Professional Staff Member, Iran-Contra Investigating Committee



**Linda Algar** *Investigator*  
**Charles Anderson** *Investigator*  
**Hugh Brady** *Professional Staff Member*  
**David Cogdell** *Investigator*  
**Deborah Cox** *Committee Secretary*  
**William Craig** *Director of Security*  
**Eric Desautels** *Investigator*  
**John Donovan** *Investigator*  
**Aengus Dowley** *Staff Assistant*  
**David Dunham** *Senior Research Analyst*  
**Michael Evans** *Investigator*  
**Eric Garnett** *Systems Administrator*  
**Shannon Haralson** *Deputy Legal Advisor*  
**Delonnie Henry** *Clerk*  
**Anne Hillegas** *Investigator*  
**Andrew Hunter** *Professional Staff Member*  
**Ruby Itchon** *Staff Counsel*  
**Jay Jakub** *Professional Staff Member*  
**Kirk McConnell** *Professional Staff Member*  
**Virginia McDonald** *Information Manager*  
**Scott McMahan** *Investigator*  
**Kevin Miller** *Investigator*  
**Gregory Milonovich** *Investigator*  
**Carrie Moore** *Professional Staff Member*  
**Walter Olson** *Senior Research Analyst*  
**Neil Patel** *Staff Counsel*  
**Jeffrey Phillips** *Investigator*  
**Robert Ramsey** *Professional Staff Member*

**Maxwell Reynolds** *Senior Counsel*  
**Ellen Riddleberger** *Professional Staff Member*  
**Kenneth Schulz** *Staff Assistant*  
**Robin Berman Schwartzman** *Counsel*  
**Mark Spaulding** *Investigator*  
**David Trimble** *Investigator*  
**Bernard Victory** *Senior Research Analyst*  
**Walter Wright** *Investigator*  
**William Yurek** *Investigator*

**Briggs Design Associates, Inc.**

*Arlington, Virginia*

*Design and production of publication and Web site*

*\* Principal consultant from the Washington Advisory Group (WAG). Other WAG representatives assisting the Select Committee's investigation were **Edward E. David, Jr.**, **Gregory DeSantis**, **Robert Frosch**, **Eugene Merchant** and **Robert Todd**.*



## Resolution 463

# THE SELECT COMMITTEE ON U.S. NATIONAL SECURITY AND MILITARY/COMMERCIAL CONCERNS WITH THE PEOPLE'S REPUBLIC OF CHINA

House of Representatives  
June 18, 1998

### SECTION 1. ESTABLISHMENT.

There is hereby created the Select Committee on U.S. National Security and Military/Commercial Concerns With the People's Republic of China, (hereafter in this resolution referred to as the 'Select Committee'). The Select Committee may sit and act during the present Congress at such times and places within the United States, including any Commonwealth or possession thereof, or in any other country, whether the House is in session, has recessed, or has adjourned, as it shall deem appropriate for the completion of its work.

### SEC. 2. JURISDICTION.

**(a) In General:** The Select Committee shall conduct a full and complete inquiry regarding the following matters and report such findings and recommendations, including those concerning the amendment of existing law or the enactment of new law, to the House as it considers appropriate:

(1) The transfer of technology, information, advice, goods, or services that may have contributed to the enhancement of the accuracy, reliability, or capability of nuclear-armed intercontinental ballistic missiles or other weapons of the People's Republic of China, or that may have contributed to the enhancement of the intelligence capabilities of the People's Republic of China.

(2) The transfer of technology, information, advice, goods, or services that may have contributed to the manufacture of weapons of mass destruction, missiles, or other weapons or armaments by the People's Republic of China.





(3) The effect of any transfer or enhancement referred to in paragraphs (1) or (2) on regional security and the national security of the United States.

(4) The conduct of the executive branch of the United States Government with respect to the transfers or enhancements referred to in paragraphs (1) or (2), and the effect of that conduct on regional security and the national security of the United States.

(5) The conduct of defense contractors, weapons manufacturers, satellite manufacturers, and other private or government-owned commercial firms with respect to the transfers or enhancements referred to in paragraphs (1) or (2).

(6) The enforcement of United States law, including statutes, regulations, or executive orders, with respect to the transfers or enhancements referred to in paragraphs (1) or (2).

(7) Any effort by the Government of the People's Republic of China or any other person or entity to influence any of the foregoing matters through political contributions, commercial arrangements, or bribery, influence-peddling, or other illegal activities.

(8) Decision-making within the executive branch of the United States Government with respect to any of the foregoing matters.

(9) Any effort to conceal or withhold information or documents relevant to any of the foregoing matters or to obstruct justice, or to obstruct the work of the Select Committee or any other committee of the House of Representatives in connection with those matters.

(10) All matters relating directly or indirectly to any of the foregoing matters.

**(b) Permitting Reports To Be Made to House in Secret Session:** Any report to the House pursuant to this section may, in the Select Committee's discretion, be made under the provisions of rule XXIX of the Rules of the House of Representatives.

### **SEC. 3. COMPOSITION; VACANCIES.**

**(a) Composition:** The Select Committee shall be composed of 9 or fewer Members of the House to be appointed by the Speaker of the House of Representatives, one of whom he shall designate as Chairman. Service on the Select Committee shall not count against the limitations on committee service in clause 6(b)(2) of rule X.



**(b) Vacancies:** Any vacancy occurring in the membership of the Select Committee shall be filled in the same manner in which the original appointment was made.

**SEC. 4. RULES APPLICABLE TO SELECT COMMITTEE.**

**(a) Quorum:** One-third of the members of the Select Committee shall constitute a quorum for the transaction of business other than the reporting of a matter, which shall require a majority of the committee to be actually present, except that the Select Committee may designate a lesser number, but not less than 2, as a quorum for the purpose of holding hearings to take testimony and receive evidence.

**(b) Applicability of House Rules:** The Rules of the House of Representatives applicable to standing committees shall govern the Select Committee where not inconsistent with this resolution.

**(c) Rules of Select Committee:** The Select Committee shall adopt additional written rules, which shall be public, to govern its procedures, which shall not be inconsistent with this resolution or the Rules of the House of Representatives.

**SEC. 5. CLASSIFIED INFORMATION.**

No employee of the Select Committee or any person engaged by contract or otherwise to perform services for or at the request of such committee shall be given access to any classified information by such committee unless such employee or person has—

(1) agreed in writing and under oath to be bound by the rules of the House (including the jurisdiction of the Committee on Standards of Official Conduct and of the Select Committee as to the security of such information during and after the period of his employment or contractual agreement with the Select Committee); and

(2) received an appropriate security clearance as determined by the Select Committee in consultation with the Director of Central Intelligence. The type of security clearance to be required in the case of any such employee or person shall, within the determination of the Select Committee in consultation with the Director of Central Intelligence, be commensurate with the sensitivity of the classified information to which such employee or person will be given access by such committee.



## **SEC. 6. LIMITS ON DISCLOSURE OF INFORMATION.**

The Select Committee shall formulate and carry out such rules and procedures as it deems necessary to prevent the disclosure, without the consent of the person or persons concerned, of information in the possession of such committee which unduly infringes upon the privacy or which violates the constitutional rights of such person or persons. Nothing herein shall be construed to prevent such committee from publicly disclosing any such information in any case in which such committee determines that national interest in the disclosure of such information clearly outweighs any infringement on the privacy of any person or persons.

## **SEC. 7. PROCEDURES FOR HANDLING INFORMATION.**

(a) The Select Committee may, subject to the provisions of this section, disclose publicly any information in the possession of such committee after a determination by such committee that the public interest would be served by such disclosure. Whenever committee action is required to disclose any information under this section, the committee shall meet to vote on the matter within five days after any member of the committee requests such a vote. No member of the Select Committee shall disclose any information, the disclosure of which requires a committee vote, prior to a vote by the committee on the question of the disclosure of such information or after such vote except in accordance with this section. In any case in which the Select Committee votes to disclose publicly any information, which has been classified under established security procedures, which has been submitted to it by the executive branch, and which the executive branch requests be kept secret, the Select Committee shall submit such classified information to the Permanent Select Committee on Intelligence.

(b)(1) As set forth in clause 7(b) of rule XLVIII, in any case in which the Permanent Select Committee on Intelligence votes to disclose publicly any information submitted pursuant to subsection (a), which has been classified under established security procedures, which has been submitted to the Select Committee by the executive branch, and which the executive branch has requested be kept secret, the Permanent Select Committee on Intelligence shall notify the President of such vote.

(2) The Permanent Select Committee on Intelligence may disclose publicly such information after the expiration of a five-day period following the day on which notice of such vote is transmitted to the President, unless, prior to the expiration of such five-day period, the President, personally in writing, notifies the Permanent Select Committee on Intelligence that he objects to the disclosure of such information, provides his reasons therefore, and certifies that the threat to the national interest of the United States posed by such disclosure is of such gravity that it outweighs any public interest in the disclosure.



(3) If the President, personally, in writing, notifies the Permanent Select Committee on Intelligence of his objections to the disclosure of such information as provided in paragraph (2), the Permanent Select Committee on Intelligence may, by majority vote, refer the question of this disclosure of such information with a recommendation thereon to the House for consideration. The Permanent Select Committee on Intelligence shall not publicly disclose such information without leave of the House.

(4) Whenever the Permanent Select Committee on Intelligence votes to refer the question of disclosure of any information to the House under paragraph (3), the chairman of the Permanent Select Committee on Intelligence shall, not later than the first day on which the House is in session following the day on which the vote occurs, report the matter to the House for its consideration.

(5) If within four calendar days on which the House is in session, after such recommendation is reported, no motion has been made by the chairman of the Permanent Select Committee on Intelligence to consider, in closed session, the matter reported under paragraph (4), then such a motion will be deemed privileged and may be made by any Member. The motion under this paragraph shall not be subject to debate or amendment. When made, it shall be decided without intervening motion, except one motion to adjourn.

(6) If the House adopts a motion to resolve into closed session, the Speaker shall then be authorized to declare a recess subject to the call of the Chair. At the expiration of such recess, the pending question, in closed session, shall be, ‘Shall the House approve the recommendation of the Permanent Select Committee on Intelligence?’

(7) After not more than two hours of debate on the motion, such debate to be equally divided and controlled by the chairman and ranking minority member of the Permanent Select Committee on Intelligence, or their designees, the previous question shall be considered as ordered and the House, without intervening motion except one motion to adjourn, shall immediately vote on the question, in open session but without divulging the information with respect to which the vote is being taken. If the recommendation of the Permanent Select Committee on Intelligence is not agreed to, the question shall be deemed recommitted to the Permanent Select Committee on Intelligence for further recommendation.

(c)(1) No information in the possession of the Select Committee relating to the lawful intelligence or intelligence-related activities of any department or agency of the United States which has been classified under established security procedures and which the Select Committee, the Permanent Select Committee on Intelligence, or the House pursuant to this section, has determined should not be disclosed shall be made available to any person by a Member, officer, or employee of the House except as provided in paragraph (2).



(2) The Select Committee shall, under such regulations as the committee shall prescribe, make any information described in paragraph (1) available to any other committee or any other Member of the House and permit any other Member of the House to attend any hearing of the committee which is closed to the public. Whenever the Select Committee makes such information available (other than to the Speaker), the committee shall keep a written record showing, in the case of any particular information, which committee or which Members of the House received such information. No Member of the House who, and no committee which, receives any information under this paragraph, shall disclose such information except in a closed session of the House.

(d) The Committee on Standards of Official Conduct shall investigate any unauthorized disclosure of intelligence or intelligence-related information by a Member, officer, or employee of the House in violation of subsection (c) and report to the House concerning any allegation which it finds to be substantiated.

(e) Upon the request of any person who is subject to any such investigation, the Committee on Standards of Official Conduct shall release to such individual at the conclusion of its investigation a summary of its investigation, together with its findings. If, at the conclusion of its investigation, the Committee on Standards of Official Conduct determines that there has been a significant breach of confidentiality or unauthorized disclosure by a Member, officer, or employee of the House, it shall report its findings to the House and recommend appropriate action such as censure, removal from committee membership, or expulsion from the House, in the case of a Member, or removal from office or employment or punishment for contempt, in the case of an officer or employee.

## **SEC. 8. TRANSFER OF INFORMATION TO SELECT COMMITTEE.**

Any committee of the House of Representatives having custody of records, data, charts, and files concerning subjects within the jurisdiction of the Select Committee shall furnish the originals or copies of such materials to the Select Committee. In the case of the Permanent Select Committee on Intelligence, such materials shall be made available pursuant to clause 7(c)(2) of rule XLVIII.

## **SEC. 9. INFORMATION GATHERING.**

(a) **In General:** The Select Committee is authorized to require, by subpoena or otherwise, the attendance and testimony of such witnesses, the furnishing of such information by interrogatory, and the production of such books, records, correspondence, memoranda, papers, documents, calendars, recordings, electronic communications, data compilations from which information can be obtained, tangible objects, and other things and information of any kind as it deems necessary, including all



intelligence materials however classified, White House materials, and materials pertaining to unvouchered expenditures or concerning communications interceptions or surveillance.

**(b) Subpoenas, Depositions and Interrogatories:** Unless otherwise determined by the Select Committee, the Chairman, upon consultation with the ranking minority member, or the Select Committee may—

- (1) authorize and issue subpoenas;
- (2) order the taking of depositions, interrogatories, or affidavits under oath or otherwise; and
- (3) designate a member or staff of the Select Committee to conduct any deposition.

**(c) International Authorities:** Unless otherwise determined by the Select Committee, the Chairman of the Select Committee, upon consultation with the ranking minority member of the Select Committee, or the Select Committee may—

- (1) authorize the taking of depositions and other testimony, under oath or otherwise, anywhere outside the United States; and
- (2) make application for issuance of letters rogatory, and request through appropriate channels, other means of international assistance, as appropriate.

**(d) Handling of Information:** Information obtained under the authority of this section shall be—

- (1) considered as taken by the Select Committee in the District of Columbia, as well as the location actually taken; and
- (2) considered to be taken in executive session.

## **SEC. 10. TAX RETURNS.**

Pursuant to sections 6103(f)(3) and 6104(a)(2) of the Internal Revenue Code of 1986, for the purpose of investigating the subjects set forth in this resolution and since information necessary for this investigation cannot reasonably be obtained from any other source, the Select Committee shall be specially authorized to inspect and receive for the tax years 1988 through 1998 any tax return, return information, or other tax-related material, held by the Secretary of the Treasury, related to individuals and entities named by the Select Committee as possible participants, beneficiaries, or intermediaries in the transactions under investigation. As specified by section 6103(f)(3) of the Internal Revenue Code of 1986, such materials and information shall be furnished in closed executive session.



## **SEC. 11. ACCESS TO INFORMATION OF THE SELECT COMMITTEE.**

The Select Committee shall provide other committees and Members of the House with access to information and proceedings, consistent with clause 7(c)(2) of rule XLVIII, except that the Select Committee may direct that particular matters or classes of matter shall not be made available to any person by its members, staff, or others, or may impose any other restriction. The Select Committee may require its staff to enter nondisclosure agreements, and its Chairman, in consultation with the ranking minority Member, may require others, such as counsel for witnesses, to do so. The Committee on Standards of Official Conduct may investigate any unauthorized disclosure of such classified information by a Member, officer, or employee of the House or other covered person upon request of the Select Committee. If, at the conclusion of its investigation, the Committee on Standards of Official Conduct determines that there has been a significant unauthorized disclosure, it shall report its findings to the House and recommend appropriate sanctions for the Member, officer, employee, or other covered person consistent with clause 7(e) of rule XLVIII and any committee restriction, including nondisclosure agreements. The Select Committee shall, as appropriate, provide access to information and proceedings to the Speaker and the Minority Leader and an appropriately cleared and designated member of each staff.

## **SEC. 12. COOPERATION OF OTHER ENTITIES.**

**(a) Cooperation of Other Committees:** The Select Committee may submit to any standing committee specific matters within its jurisdiction and may request that such committees pursue such matters further.

**(b) Cooperation of Other Federal Entities:** The Chairman of the Select Committee, upon consultation with the ranking minority member, or the Select Committee may request investigations, reports, and other assistance from any agency of the executive, legislative, and judicial branches of the Federal Government.

## **SEC. 13. ACCESS AND RESPONSE TO JUDICIAL PROCESS.**

In addition to any applications to court in response to judicial process that may be made in behalf of the House by its counsel, the Select Committee shall be authorized to respond to any judicial or other process, or to make any applications to court, upon consultation with the Speaker consistent with rule L.



**SEC. 14. ADMINISTRATIVE MATTERS.**

**(a) Personnel:** The Chairman, upon consultation with the ranking minority member, may employ and fix the compensation of such clerks, experts, consultants, technicians, attorneys, investigators, clerical and stenographic assistants, and other appropriate staff as the Chairman considers necessary to carry out the purposes of this resolution. Detailees from the executive branch or staff of the House or a joint committee, upon the request of the Chairman of the Select Committee, upon consultation with the ranking minority member, shall be deemed staff of the Select Committee to the extent necessary to carry out the purposes of this resolution.

**(b) Payment of Expenses:** (1) The Select Committee may reimburse the members of its staff for travel, subsistence, and other necessary expenses incurred by them in the performance of the duties vested in the Select Committee.

(2) Not more than \$2,500,000 are authorized for expenses of the Select Committee for investigations and studies, including for the procurement of the services of individual consultants or organizations thereof, and for training of staff, to be paid out of the applicable accounts of the House of Representatives upon vouchers signed by the Chairman and approved in the manner directed by the Committee on House Oversight.

**SEC. 15. APPLICABILITY OF OTHER LAWS TO SELECT COMMITTEE.**

The Select Committee shall be deemed a committee of the House for all purposes of the rules of the House of Representatives and shall be deemed a committee for all purposes of law, including, but not limited to, section 202(f) of the Legislative Reorganization Act of 1946 (2 U.S.C. 72a(f)), sections 102 and 104 of the Revised Statutes (2 U.S.C. 192 and 194), sections 1001, 1505, 1621, 6002, and 6005 of title 18, United States Code, section 502(b)(1)(B)(ii) of the Mutual Security Act of 1954 (22 U.S.C. 1754(b)(1)(B)(ii)), and section 734 of title 31, United States Code.

**SEC. 16. DISPOSITION OF RECORDS.**

At the conclusion of the existence of the Select Committee, all records of the Select Committee shall be transferred to other committees, or stored by the Clerk of the House, as directed by the Select Committee, consistent with applicable rules and law concerning classified information.





## PARTIAL SCHEDULE OF SELECT COMMITTEE HEARINGS AND MEETINGS

DATE	SUBJECT MATTER	WITNESS(ES)
<b>June 25</b>	Business meeting (closed)	
<b>July 15</b>	Business meeting (closed)	
<b>July 22</b>	Classified (closed)	Central Intelligence Agency
<b>July 29</b>	Classified (closed)	Central Intelligence Agency
<b>August 5</b>	High Performance Computers (closed)	Department of Defense
	PRC activities in the U.S. (closed)	Federal Bureau of Investigation
<b>August 17</b>	Classified (closed)	Central Intelligence Agency
	PRC space program	Marcia Smith, Congressional Research Service
	Intelsat 708 Independent Review Committee	Shirley Kan, Congressional Research Services
<b>August 18</b>	Classified (closed)	Central Intelligence Agency



	Impact of the Intelsat 708 Independent Review Committee (closed)	Franklin Miller and David Tarbell, Department of Defense
	Impact of the Intelsat 708 Independent Review Committee (closed)	William Howell, Department of Defense
<b>August 19</b>	Classified (closed)	Department of Defense
<b>August 25</b>	PRC Missiles and Satellites (closed)	Department of Defense
<b>August 26</b>	Classified (closed)	Department of Defense
	Intelsat 708 Independent Review Committee (closed)	Allen Locke, Department of State
	Classified (closed)	Central Intelligence Agency
	PRC activities in the U.S. (closed)	Federal Bureau of Investigation
<b>August 27</b>	Contractor security preparations (closed)	Margaret Qualls, former PRC launch site security manager
	Corporate launch site security practices (closed)	Col. Steven Prichard (Ret.) former Defense Technology Security Administration Monitor
	Export control policies and practices (closed)	Dr. Peter Leitner



<b>August 31</b>	Defense Technology Security Administration policies and practices (closed)	Franklin Miller and David Tarbell, Department of Defense
	Export policies regarding high performance computers (closed)	William Reinsch, Department of Commerce
<b>September 1</b>	Classified (closed)	Col. Richard Skinner, Department of Defense
	The use of high performance computers in advanced nuclear weapons development (closed)	Notra Trulock and Thomas Cook, Department of Energy
	High performance computer export controls	Harold J. Johnson and Jeff Phillips, General Accounting Office
<b>September 2</b>	Effectiveness of export controls (closed)	Dr. Stephen Bryen, former Defense Technology Security Administration official
	1995 transfer to the PRC of machine tools by McDonnell Douglas Corp.	Katherine Schinasi, General Accounting Office
<b>September 11</b>	Satellite launch insurance concerns	Timothy Rush, J&H Marsh & McLennan
<b>September 18</b>	Business meeting (closed)	



<b>September 25</b>	Classified (closed)	Department of Defense
<b>October 2</b>	Optus B2 launch failure analysis (closed)	Kenneth Peoples, former Department of Defense official
	Apstar 2 launch failure analysis (closed)	Eugene Christiansen and Iain Baird, Department of Commerce
<b>October 9</b>	Classified (closed)	Department of Defense
<b>October 14</b>	Counterintelligence programs at U.S. National Weapons Laboratories (Los Alamos, Livermore, and Sandia) (closed)	Dr. John Browne, Director, Los Alamos; Dr. Bruce Tarter, Director, Livermore; Dr. Paul Robinson, Director, Sandia
	U.S. National Weapons Laboratories security issues	Kenneth Fultz, John Schultz, and William Fentzel, General Accounting Office
<b>October 15</b>	Rumsfeld Commission testimony on PRC ballistic missile threat issues (closed)	Hon. Donald Rumsfeld, Hon. R. James Woolsey, Dr. William Schneider, Dr. Stephen A. Cambone, and Richard Haver
	PRC technology transfer programs	Kathleen Walsh, DFI International



	PRC commercial activities in the U.S.	James Mulvenon, Rand Corporation; Nicholas Eftemiades, independent expert
<b>October 16</b>	Professional staff briefing on status of investigation (closed)	Select Committee Staff
<b>October 20</b>	Business meeting (closed)	
<b>November 12</b>	Classified (closed)	Department of Energy; CIA
<b>November 13</b>	Economic implications of U.S. satellite launch policy	Raymond Williamson, Space Policy Institute; Loren Thompson, Lexington Institute; Clayton Mowry, Satellite Industry Association
<b>December 9</b>	Business meeting (closed)	
<b>December 16</b>	Classified (closed)	Department of Energy; CIA; FBI
<b>December 17</b>	Strategic implications of PRC theft of U.S. military technology (closed)	Hon. Caspar Weinberger, former Secretary of Defense; Hon. R. James Woolsey, former Director of Central Intelli- gence; Dr. Paul Wolfowitz, Dean, Johns Hopkins School of Advanced Interna- tional Studies



---

**December 21** Business meeting (closed)

---

**December 22** Business meeting (closed)

---

**December 23** Business meeting (closed)

---

**December 28** Business meeting (closed)

---

**December 29** Business meeting (closed)

---

**December 30** Business meeting (closed)

---



## PARTIAL LIST OF DEPOSITIONS AND INTERVIEWS CONDUCTED BY THE SELECT COMMITTEE

### Satellites/Rockets

---

Col. Nick Alexandrow, U.S. Department of Defense\*

Michael Armstrong, Hughes Space & Communications

Julie Bannerman, Space Systems/Loral

Charles R. Banta, U.S. Department of Defense

Jerald R. Beiter, U.S. Department of Commerce

Robert Berry, Space Systems/Loral

Patricia Bowers, Hughes Space & Communications

Harold D. Bradshaw, Space Systems/Loral

Donald L. Bridwell, INTELSAT

Steven O. Burke, Hughes Space & Communications

Fred Chan, Space Systems/Loral

Joseph Charles Chandler, Jr., U.S. Department of Defense

Elroy “Gene” Christiansen, U.S. Department of Commerce

Frank Cirillo, Lockheed-Martin Corp.

Lt. Col. Allen Coates, Defense Technology Security Administration\*

Donald Cromer, Hughes Space & Communications

Steve Cunningham, Hughes Space & Communications

Kenneth Davis, Space Systems/Loral\*

Clyde Patrick DeWitt, Space Systems/Loral

Martin Dome, Hughes Space & Communications

Steven Dorfman, Hughes Space & Communications

Terry Edwards, Intelsat

Col. Wayne Eleazer, U.S. Department of Defense

Col. David Garner, U.S. Department of Defense

Frederick H. Hauck, AXA Space

Michael Hewins, Space Ventures International

Peter M. Herron, Hughes Space & Communications

Chuck Higgins, Pinkerton Security Services

James Richard Johnson, Pinkerton Security Services

Sara Jones, Hughes Space & Communications\*

Shen Jun, Hughes Space & Communications

Karl Kachigan, Analex Corporation



Kirk Douglas Keer, Space Systems/Loral  
Robert S. Kovac, U.S. Department of Defense  
Spencer Ku, Hughes Space & Communications  
Bansang W. Lee, Hughes and Space Systems/Loral\*  
Donald L. Leedle, Hughes Space & Communications  
Daniel Lilienstein, Intelsat  
Wah Lim, Hughes and Space Systems/Loral\*  
Donald L. Majors, Hughes Space & Communications\*  
Michael Maloof, U.S. Department of Defense  
Richard Park  
John S. Perkins, Hughes Space & Communications  
Tom Manuel, Pinkerton Security Services  
Michael Poliner, Feith & Zell, P.C.  
Frederick Ormsby, Intelsat\*  
Keith Patterson, Space Systems/Loral  
Kenneth Peoples, U.S. Department of Defense/U.S. Department of State\*  
Steven Prichard, U.S. Department of Defense\*  
Margaret Qualls, Pinkerton Security Services\*  
Mark Quinn, Willis Corroon Inspace Inc.  
Duncan L. Reynard, Space Systems/Loral  
James William Reynolds, Space Systems/Loral\*  
Patrick Rivalan, AXA Space  
Jack Rodden, Space Systems/Loral  
Thomas B. Ross, Loral Space & Communications  
Timothy Rush, J&H Marsh & McLennan  
William Schweickert, Space Systems/Loral  
Bernard Schwartz, Loral Space & Communications  
Carol C. Sebring, Space Systems/Loral  
John W. Smay, Hughes Space & Communications  
Peter Snow, Space Systems/Loral\*  
Robert A.D. Steinhauer, Hughes Space & Communications  
Nabeeh Totah, Space Systems/Loral  
Alvin A. Ulsch III, Space Systems/Loral  
Lynne P. Vollmer, AXA Space  
Marjorie L. Walker, Space Systems/Loral\*  
Al Whittman, Hughes Space & Communications  
Nick Yen, Space Systems/Loral  
Eric J. Zahler, Loral Space & Communications





## High Performance Computers

---

William J. Andahazy, Defense Consultant  
Dr. Stephen Bryen, U.S. Department of Defense\*  
Aaron W. Cross, IBM Inc.  
Tom Dunn, U.S. Department of Defense  
Seymour Goodman, Stanford University  
Dr. Jeff Hollingsworth, University of Maryland  
Dan Hoydysh, Unisys Corp.  
David Kahaner, Asian Technology Information Program  
Paul Koenig, U.S. Department of Defense  
Charles E. Leiserson, Massachusetts Institute of Technology

## Manufacturing Processes

---

Iain S. Baird, U.S. Department of Commerce  
Rear Admiral William D. Center, U.S. Navy  
Elroy “Gene” Christiansen, U.S. Department of Commerce  
Frank W. Deliberti, U.S. Department of Commerce\*  
John Despres, U.S. Department of Commerce\*  
Sue E. Eckert, U.S. Department of Commerce\*  
Antonio Hernandez, U.S. Department of Commerce  
Robert Hitt, McDonnell Douglas  
Peter Leitner, U.S. Department of Defense  
R. Roger Majak, U.S. Department of Commerce  
Michael F. Maloof, U.S. Department of Defense  
Douglas McNeill, U.S. Department of Commerce  
Mark D. Menefee, U.S. Department of Commerce  
Douglas Monitto, Monitor Aerospace Corp.  
Brooks D. Ohlson, World Trade Center  
Dan Poneman, National Security Council  
Marc G. Reardon, U.S. Department of Commerce  
William Reinsch, U.S. Department of Commerce  
Mingqi Zhao, CATIC USA

## PRC Commercial Activities

---

Rich Aboulafia, Teal Group  
Bruce Carlson, Federal Bureau of Investigation  
Tai Ming Cheung, Kroll Associates Ltd.  
Richard Cupitt, Center for International Trade & Security  
David Duquette, New Century Remanufacturing



Jeffrey L. Fiedler, AFL-CIO Food & Allied Services Trade  
John Foarde, U.S.-China Business Council  
Dr. Bates Gill, Brookings Institute  
Dr. Harlen Jencks, Lawrence Livermore National Laboratory  
Duncan King, Securities & Exchange Commission  
Robert Levy, Norman Levy Associates  
Hon. James Lilley, U.S. Ambassador to the PRC\*  
Joan E. McKown, Securities & Exchange Commission  
Ron Montaperto, National Defense University  
Mike Nichols, Harris Communications  
Roger Robinson, RWR Inc.  
David A. Sirignano, Securities & Exchange Commission  
Bruce C. Webb, U.S. Department of Commerce\*  
David Welker, AFL-CIO Food & Allied Services Trade  
Bin Wu, convicted PRC technology transfer agent  
Mingqi Zhao, CATIC USA

**Export Controls/Policy**

---

Iain S. Baird, U.S. Department of Commerce  
John P. Barker, U.S. Department of State  
Frank W. Deliberti, U.S. Department of Commerce\*  
Sue E. Eckert, U.S. Department of Commerce\*  
Steven C. Goldman, U.S. Department of Commerce  
Cecil M. Hunt, U.S. Department of Commerce  
Carol A. Kalinoski, U.S. Department of Commerce  
Peter Leitner, U.S. Department of Defense  
James Andrews Lewis, U.S. Department of Commerce  
Robert S. Litt, U.S. Department of Justice  
Will Lowell, U.S. Department of State  
R. Roger Majak, U.S. Department of Commerce  
Michael F. Maloof, U.S. Department of Defense  
George Menas, U.S. Department of Defense  
Dan Poneman, National Security Council  
William Reinsch, U.S. Department of Commerce  
Peter Sullivan, U.S. Department of Defense  
David Tarbell, U.S. Department of Defense  
Mitchel B. Wallerstein, U.S. Department of Defense\*  
Hoyt H. Zia, U.S. Department of Commerce

\* *Not affiliated with organization at time of interview/deposition*



# SELECT COMMITTEE VOTES TO ENFORCE REQUESTS FOR INFORMATION

The Select Committee issued more than 180 requests for information from business, government, individual witnesses, and other sources. The following are cases in which the Select Committee agreed to issue a subpoena to enforce its requests.

August 20	Steven M. Prichard, U.S. Department of Defense*
August 20	Margaret Qualls, Pinkerton Security Services*
September 25	International Space Brokers, Inc.
September 25	Dr. Wah Lim, Space Systems/Loral*
September 25	J&H Marsh & McLennan, Inc.
September 25	Monitor Aerospace, Inc.
September 28	Michael Maloof, U.S. Department of Defense
October 6	Mingqi Zhao, CATIC USA
October 16	Kenneth Davis, Space Systems/Loral
October 20	Patricia Bowers, Hughes Space & Communications
October 20	Steven O. Burke, Hughes Space & Communications
October 20	Donald Cromer, Hughes Space & Communications
October 20	Steven Cunningham, Hughes Space & Communications
October 20	Steven Dorfman, Hughes Space & Communications
October 20	Peter Herron, Hughes Space & Communications
October 20	Larry Jackson, Hughes Space & Communications
October 20	David Knauer, Hughes Space & Communications
October 20	Spencer Ku, Hughes Space & Communications
October 20	Donald Leedle, Hughes Space & Communications
October 20	Donald Majors, Hughes Space & Communications*
October 20	Beth Mersch, Hughes Space & Communications
October 20	Richard Park
October 20	John S. Perkins, Hughes Space & Communications
October 20	Harold Rosen, Hughes Space & Communications
October 22	John Smay, Hughes Space & Communications
October 20	Ted Smith, Hughes Space & Communications
October 20	Robert A.D. Steinhauer, Hughes Space & Communications
October 20	Jose Verissimo, Hughes Space & Communications
October 20	Al Wittman, Hughes Space & Communications



October 23	Brian Tau
October 23	Steven O. Burke, Hughes Space & Communications
October 28	Cadalong International Capital, Inc.
October 28	TAL Industries, Inc.
November 6	Michael Poliner, Feith & Zell, P.C.
November 12	Karl Kachigan, Analex Corporation
December 1	C. Michael Armstrong, Hughes Space & Communications*
December 1	John Huang, U.S. Department of Commerce*
December 1	Nicholas Yen, Space Systems/Loral

\* *Not affiliated with organization at time of subpoena*



# PARTIAL LIST OF DOCUMENTS REQUESTED BY THE SELECT COMMITTEE

## **Boeing Company**

---

August 19 Documents relating to issues set forth in H. Res. 463  
October 8 Privilege log describing withheld documents

## **Bush Presidential Library**

---

November 3 Documents relating to President Bush's Executive Order requiring the divestiture of MAMCO by the China National Aero-Technology Import-Export Corp.

## **Central Committee of the Chinese Communist Party**

---

October 20 Information on certain Chinese nationals

## **COMSAT**

---

August 19 Documents relating to issues set forth in H. Res. 463

## **Congressional Research Service**

---

October 7 Report on China National Aero-Technology Import-Export Corp. (CATIC)

## **General Accounting Office**

---

September 1 Documents relating to issues set forth in H. Res. 463

## **House Permanent Select Committee on Intelligence**

---

July 20 Documents relating to matters of concern to the Select Committee

## **Hughes Space & Communications**

---

August 19 Documents relating to issues set forth in H. Res. 463



August 20 Documents relating to the launches and attempted launches of the Chinese Long March 3B and 2E rockets and information on Hughes employees and contractors

**Intelsat**

---

September 9 Documents relating to launches of Intelsat satellites in the PRC

**Lockheed-Martin Missiles & Space Corp.**

---

November 17 Documents relating to company plans to protect security of technology at launch sites

**Monitor Aerospace**

---

September 15 Documents relating to correspondence and communications with any representatives of the People's Republic of China and/or McDonnell Douglas Corp. pertaining to the establishment of a machining center in the PRC

October 8 Privilege log describing withheld documents

**Motorola Corp.**

---

July 31 Documents relating to issues set forth in H. Res. 463

**Office of the Vice President of the United States**

---

August 19 Documents relating to issues set forth in H. Res. 463

**Office of the President of the United States**

---

August 19 Documents relating to issues set forth in H. Res. 463

September 18 Documents relating to commercial activities in the United States by PRC interests, the President's Export Council, and Presidential waivers of sanctions

November 12 Information relating to issues set forth in H. Res. 463

**Bernard Schwartz**

---

August 19 Documents relating to issues set forth in H. Res. 463



## **Space Systems/Loral**

---

August 19 Documents relating to issues set forth in H. Res. 463

## **U.S. Arms Control and Disarmament Agency**

---

August 19 Documents relating to issues set forth in H. Res. 463

## **U.S. Customs Service**

---

August 19 Documents relating to issues set forth in H. Res. 463

September 2 Documents relating to investigations or analyses of technology acquisitions by the PRC

## **U.S. Department of Commerce**

---

August 10 Documents relating to Wah Leng Lim, Shen Jun and Nick Yen

August 19 Documents relating to issues set forth in H. Res. 463

September 21 Printouts from the Export Control Automated Support System (ECASS) showing all exports to the People's Republic of China, including Hong Kong

October 26 Documents relating to certain businesses and individuals

October 27 Documents relating to John Huang

October 27 Electronic copy of the Export Control Automated Support System (ECASS)

November 9 Documents relating to complaints or concerns expressed by the Office of the U.S. Attorney/Los Angeles regarding the local field office of the Office of Export Enforcement or certain personnel located within that field office

November 13 Copies of export policies and regulations, manuals and licenses

November 20 Information relating to issues set forth in H. Res. 463

## **U.S. Department of Defense**

---

August 10 Documents relating to Wah Leng Lim, Shen Jun and Nick Yen

August 19 Documents relating to issues set forth in H. Res. 463

September 15 Documents relating to issues set forth in H. Res. 463



September 17	Documents relating to issues set forth in H. Res. 463
September 22	Documents relating to 1994 sale of McDonnell Douglas machine tools to China National Aero-Technology Export-Import Corp. (CATIC)
September 25	Information relating to issues set forth in H. Res. 463
September 29	Copy of video of PRC launch V-7733
October 20	Documents relating to Zhou Yuanying
October 26	Documents relating to certain businesses and individuals
November 3	Documents relating to issues set forth in H. Res. 463

**U.S. Department of Energy**

---

August 19	Documents relating to issues set forth in H. Res. 463
November 24	Documents relating to issues set forth in H. Res. 463
November 30	Information relating to issues set forth in H. Res. 463

**U.S. Department of Justice**

---

July 21	Documents relating to assessments of impact on national security resulting from involvement of U.S. companies in PRC launch failure investigations
August 19	Documents relating to issues set forth in H. Res. 463

**U.S. Department of State**

---

August 10	Documents relating to Wah Leng Lim, Shen Jun and Nick Yen
August 19	Documents relating to issues set forth in H. Res. 463
November 20	Documents relating to issues set forth in H. Res. 463
November 30	Information relating to issues set forth in H. Res. 463

**U.S. Department of Transportation**

---

August 19	Documents relating to issues set forth in H. Res. 463
-----------	---





## **U.S. Department of Treasury**

---

August 14	Documents relating to Wah Leng Lim, Shen Jun and Nick Yen
August 19	Documents relating to issues set forth in H. Res. 463
September 1	Documents relating to Committee on Foreign Investment in the U.S. (CFIUS) reviews of PRC acquisition of U.S. entities
October 27	Documents relating to John Huang
November 20	Documents relating to issues set forth in H. Res. 463

## **U.S. Federal Bureau of Investigation**

---

August 6	Documents relating to Wah Leng Lim, Shen Jun and Nick Yen
October 20	Documents relating to Zhou Yuanying
October 26	Documents relating to certain businesses and individuals

## **U.S. Immigration and Naturalization Service**

---

August 10	Documents relating to Wah Leng Lim, Shen Jun and Nick Yen
-----------	---

## **U.S. National Aeronautics and Space Administration**

---

August 19	Documents relating to issues set forth in H. Res. 463
-----------	---

## **U.S. National Security Council**

---

August 19	Documents relating to issues set forth in H. Res. 463
-----------	---

## **U.S. Securities and Exchange Commission**

---

September 10	Documents relating to PRC ownership of commercial enterprises in the United States
--------------	--

## **U.S. Senate, Committee on Government Affairs**

---

October 27	Copies of the classified version of specified chapters of “The China Connection” report
------------	---



## GLOSSARY OF PROPER NAMES

<b>Nicholas Alexandrow</b>	Former USAF Colonel assigned to U.S. Defense Technology Security Administration; employed by Loral since 1996
<b>C. Michael Armstrong</b>	Chairman and Chief Executive Officer, Hughes Electronics, 1993-97; Chairman, AT&T, 1997 to present
<b>Iain Baird</b>	Deputy Assistant Secretary for Export Administration, U.S. Department of Commerce
<b>Julie Bannerman</b>	Loral General Counsel and Vice President
<b>Bao Miaoqin</b>	Chief Engineer of the PRC's Asia Pacific Telecommunications Satellite Co., Ltd.
<b>Samuel R. (Sandy) Berger</b>	President Clinton's National Security Adviser since 1997; Deputy National Security Adviser, 1993-1997
<b>Robert Berry</b>	President, Loral
<b>Harold Bradshaw</b>	Loral representative in Washington, D.C.
<b>Donald Bridwell</b>	Manager, Intelsat's Major Programs Office in the Procurement Division
<b>Ronald H. Brown</b>	Former U. S. Secretary of Commerce (deceased)
<b>Steven Bryen</b>	Member of Loral's Government Security Committee (GSC); former Director of Defense Technology Security Administration
<b>Steven Burke</b>	Structural engineer at Hughes who served as a principal investigator of the Long March 2E-Optus B2 crash
<b>Fred Chan</b>	Director, Controls Engineering, Loral; Technical Staff on Independent Review Committee for the Long March 3B-Intelsat 708 crash
<b>Gareth Chang</b>	Senior Vice President, Hughes Electronics
<b>Eugene (Gene) Christiansen</b>	Export Licensing Officer, U.S. Department of Commerce
<b>Warren Christopher</b>	President Clinton's first Secretary of State



<b>Allen Coates</b>	Lt. Col. in the U.S. Air Force (now retired); served as a U.S. Defense Technology Security Administration monitor
<b>Donald Cromer</b>	Vice President, Hughes Electronics; President, Hughes Space & Communications International, Inc.
<b>Stephen L. Cunningham</b>	PhD physicist working as a senior level executive in Hughes' satellite program since 1977; Program Manager for Optus B1; led the Long March 2E-Optus B2 crash investigation; co-leader of Hughes' Failure Investigation Team after the Long March 2E-Apstar 2 crash
<b>Ken Davis</b>	Security Manager at Loral
<b>Frank Deliberti</b>	Former Deputy Assistant Secretary for Export Enforcement, U.S. Department of Commerce
<b>John Despres</b>	Former Assistant Secretary for Export Enforcement, U.S. Department of Commerce
<b>Pat Dewitt</b>	Chief Financial Officer, Loral
<b>Steven D. Dorfman</b>	President and CEO, Hughes Space and Communications International, Inc.
<b>Sue Eckert</b>	Former Assistant Secretary for Export Administration, U.S. Department of Commerce
<b>Terry Edwards</b>	Manager, Intelsat's Launch Vehicle Program Office
<b>Douglas Feith</b>	Partner, Feith & Zell, P.C., Washington, D.C. (outside legal counsel for Loral)
<b>Seymour Goodman</b>	Director, Consortium for Research in Information Security and Policy under the Center for International Security and Cooperation and the School of Engineering at Stanford University
<b>He Kerang</b>	President, Asia Pacific Telecommunications Satellite Company, Ltd., PRC-controlled satellite owner and operator based in Hong Kong; phonetic Hee Keh-rang
<b>Antonio Hernandez</b>	Special Agent, Office of Export Enforcement Intelligence Division, U.S. Department of Commerce



<b>Peter Herron</b>	Hughes' Program Manager for Optus B3; Assistant Program Manager for Optus B2; responsible for coordination with PRC in the Long March 2E-Optus B2 crash investigation; co-leader of Hughes' Failure Investigation Team after the Long March 2E-Apstar 2 crash
<b>Michael Hewins</b>	Former Chairman, Space and Telecom Group, J&H Marsh & McLennan
<b>Reinhard Hildebrandt</b>	Team Leader, Flight Operations & Post Flight Evaluation, Daimler-Benz Aerospace, Bremen, Germany; Member of Independent Review Committee for Long March 3B-Intelsat 708 crash
<b>Robert Hitt</b>	PRC Program Manager, McDonnell Douglas
<b>John Holt</b>	Member of Independent Review Committee; retired Managing Director, Space Systems Group, British Aerospace; consultant with McLaurin-Holt Association in Great Britain
<b>John Huang</b>	Former Principal Deputy Assistant Secretary for International Economy Policy, U.S. Department of Commerce; was principal U.S. executive for the Lippo Group, a partner of the China Resources (Holdings) Company in the PRC
<b>Karl Kachigan</b>	Member of Independent Review Committee; retired Chief Engineer and Director, Atlas Launch Vehicle at General Dynamics
<b>Bob Kovac</b>	Licensing officer, U.S. Defense Technology Security Administration (now Technology Security Directorate)
<b>Spencer Ku</b>	Hughes engineer involved in the Long March 2E-Apstar 2 and Long March 2E-Optus B2 crash investigations
<b>Bansang (Bill) Lee</b>	Loral representative in the PRC; previously Hughes representative in the PRC; President, Plettenberg, Ltd., Beijing, PRC
<b>Peter Lee</b>	Taiwanese-born scientist at Los Alamos National Laboratory convicted in 1997 of passing classified weapons technology information to the PRC



<b>Donald Leedle</b>	Hughes' Technology Export Control Coordinator from 1992 to 1996
<b>Peter Leitner</b>	Senior Strategic Trade Advisor, U.S. Defense Technology Security Administration (now Technology Security Directorate)
<b>Daniel Lilienstein</b>	Assembly, Integration and Test Manager at Intelsat in Palo Alto, California
<b>Wah Lim</b>	Former Senior Vice President & General Manager of Engineering and Manufacturing, Loral; currently employed by Hughes; Chairman of Independent Review Committee
<b>Col. Liu Chaoying</b>	PLA colonel and officer of China Aerospace Corporation who provided Johnny Chung with \$300,000; daughter of General Liu Huaquing
<b>Gen. Liu Huaquing</b>	Former CCP Central Military Commission Vice Chairman and Politburo Standing Committee Member until 1997. General Liu has been described as the PLA's preeminent policymaker on military R&D, technology acquisition, and equipment modernization as well as the most powerful military leader in the PRC. He has used numerous U.S. companies for sensitive technology acquisitions. Phonetic Lee-you Hwa-ching
<b>Liu Jiyuan</b>	PRC Minister; heads China Aerospace Corporation; phonetic Lee-you Jee-yuan
<b>Liu Zhixiong</b>	Vice President, China Great Wall Industry Corporation; phonetic Lee-you Zhee-sheeyong
<b>R. Roger Majak</b>	Assistant Secretary for Export Administration, U.S. Department of Commerce
<b>Donald E. Majors</b>	Director, International Affairs, Hughes' Washington D.C. office
<b>Michael Maloof</b>	Chief, Technical Security Operations, U.S. Defense Technology Security Administration (renamed Technology Security Directorate)
<b>Jacques Masson</b>	Former Manager, J&H Marsh & McLennan office in Paris



<b>Douglas McNeill</b>	Chief, Office of Export Enforcement, Intelligence Division, U.S. Department of Commerce
<b>Mark Menefee</b>	Director, Office of Export Enforcement, U.S. Department of Commerce
<b>John Merizon</b>	Loral Manager for Intelsat 7 and 7A programs
<b>Doug Monitto</b>	Former President, Monitor Aerospace
<b>Paul O'Connor</b>	Former Vice President, Space and Telecom Group, J&H Marsh & McLennan; Australian citizen working for British space insurance broker Willis Corroon Inspace (WCI) in Singapore
<b>Zia Oboodiyat</b>	Loral Executive Director for the Mabuhay program
<b>Brooks Ohlson</b>	Former Special Agent in Charge, Los Angeles Field Office, Office of Export Enforcement, U.S. Department of Commerce
<b>Frederick Ormsby</b>	Member of Independent Review Committee; retired launch vehicle engineer with Intelsat, where he was the Department Manager, Spacecraft Engineering & Launch Vehicle Program Office
<b>Kenneth Peoples</b>	Former Department of State Licensing Officer; currently at U.S. Defense Technology Security Administration (renamed Technology Security Directorate)
<b>John S. Perkins</b>	Hughes' Director of Launch Service Acquisitions; negotiated the Optus B3 contract
<b>Dan Poneman</b>	Former U.S. National Security Council Senior Director for Nonproliferation and Export Controls
<b>Steven Prichard</b>	Former USAF Captain and U.S. Defense Technology Security Administration monitor for Intelsat 708 launch campaign
<b>Margaret Qualls</b>	Former Pinkerton Site Security Manager
<b>Mark Quinn</b>	Former Vice President, J&H Marsh & McLennan's Space and Telecom Group



<b>Marc Reardon</b>	Former Department of Commerce Office of Export Enforcement Special Agent at Los Angeles Field Office
<b>William Reinsch</b>	Under Secretary for Export Administration, U.S. Department of Commerce
<b>Duncan Reynard</b>	Export Control Officer, Loral
<b>Jack Rodden</b>	Principal Engineer at Loral; Technical Staff on Independent Review Committee for Long March 3B-Intelsat 708 crash
<b>Joe Rongeau</b>	Hughes' Washington, D.C. representative
<b>Timothy Rush</b>	Vice President, J&H Marsh & McLennan's Space and Telecom Group; former Intelsat Program Manager
<b>Bernard Schwartz</b>	Chairman of the Board and Chief Executive Officer, Loral Space & Communications
<b>William Schweickert</b>	Technology Transfer Control Manager at Loral
<b>Shen Jun</b>	Hughes Space and Communications scientist and business development specialist on APMT satellite program; son of PRC People's Liberation Army Lt. Gen. Shen Rongjun; phonetic Shen June
<b>Shen Rongjun</b>	Lt. Gen., People's Liberation Army; Deputy Director, Commission of Science, Technology and Industry for National Defense (COSTIND); father of Hughes employee Shen Jun; phonetic Shen Rong-June
<b>Shouchun Chen</b>	Vice President, China Great Wall Industry Corporation
<b>John Smay</b>	Chief Technologist, Hughes Space & Communications; Member of Independent Review Committee for Long March 3B-Intelsat 708 crash
<b>Jennifer Smolker</b>	Hughes attorney responsible for satellite export licensing accountability
<b>Pete Snow</b>	Loral Site Security Manager at Long March 3B-Intelsat 708 crash in the PRC
<b>Robert Steinhauer</b>	Member of Independent Review Committee for Long



	March 3B-Intelsat 708 crash; Chief Scientist, Hughes Space & Communications
<b>David Tarbell</b>	Director, Technology Security Directorate (and Director of predecessor agency, the U. S. Defense Technology Security Administration)
<b>Nabeeh Totah</b>	Director, Spacecraft Engineering Laboratory, Loral; Technical Staff on Independent Review Committee for Long March 3B-Intelsat 708 crash
<b>Yah Lin (Charlie) Trie</b>	Taiwanese-born businessman indicted on campaign finance irregularities; financial connections to CP Group, shareholders in PRC-controlled APT satellite consortium; subject of Senate and House investigations of political fundraising
<b>Muhammad Wahdy</b>	Loral Satellite Test Engineer
<b>Mitchel Wallerstein</b>	Former Deputy Assistant Secretary of Defense for Counterproliferation Policy
<b>Dan Weston</b>	Hughes Electronics' in-house expert in International Traffic in Arms Regulations
<b>Al Wittman</b>	Hughes' Chief Technologist
<b>Bin Wu</b>	Former Chinese philosophy professor convicted in U.S. of smuggling night-vision equipment to PRC
<b>He Xing</b>	Deputy General Manager, Space Division, China Great Wall Industry Corporation; phonetic Hee-Shing
<b>Nick Yen</b>	Department Manager, Launch Vehicle & Launch Operations, Loral; Secretary of Independent Review Committee for Long March 3B-Intelsat 708 crash
<b>Madame Zhou</b>	PRC representative for PRC-controlled Asia Pacific Telecommunications Satellite Co., Ltd.
<b>Steve Zurian</b>	A principal of Trident Data Systems, which advised Loral on export control issues, and an attendee at meetings of Loral's Government Security Committee







## GLOSSARY OF TERMS

<b>AIT</b>	Assembly Integration and Test; the name for the period in the manufacture of a satellite in which the satellite is physically put together and tested.
<b>Apstar</b>	The family name of several geosynchronous communications satellites manufactured by Hughes Space & Communications International, Inc. for APT.
<b>APT</b>	Asia Pacific Telecommunications Satellite Company, Ltd.; 75% owned by PRC government-backed companies. Based in Hong Kong, APT owns and operates several satellites named Apstar.
<b>AVIC</b>	Aviation Industries of China, formerly known as the Ministry of Aviation. AVIC is a PRC state-controlled entity that oversees research, development, and production of military and civilian aircraft in the PRC.
<b>Ballistic Missile</b>	A rocket-launched system carrying one or more warheads which returns to the Earth's surface along a ballistic trajectory, meaning a non-propulsive free-fall. Ballistic missiles can be designed for short-, intermediate-, or long-range (see ICBM) capability. Many of the systems and components of ballistic missiles are common to rockets used to put satellites into orbit.
<b>Broker</b>	A space insurance broker administers the space insurance policy between the underwriters and the satellite owner or manufacturer.
<b>CAEP</b>	China Academy of Engineering Physics, an institution responsible for research, development, testing, and production of the PRC's nuclear weapons. CAEP is subordinate to COSTIND.
<b>CALT</b>	China Academy of Launch Vehicle Technology. PRC state-controlled entity that designs and manufactures military and commercial rockets and ballistic missiles.
<b>CASC</b>	China Aerospace Corporation. Responsible for the design and manufacture of both PLA missiles and military and commercial space launch services and equipment. CASC is the parent organization of China Great Wall Industry Corporation (CGWIC),



China Academy of Launch Vehicle Technology (CALT), China Academy of Space Technology (CAST), and other entities.

**CAST**

China Academy of Space Technology. PRC state-controlled entity that designs and manufactures satellites and recoverable payloads.

**CATIC**

China National Aero-Technology Import/Export Corporation (CATIC) is a PRC state-controlled industrial corporation subordinate to the Aviation Industries Corporation of China (AVIC). AVIC is responsible for managing R&D for the PRC's state-controlled aviation industry, including production of military aircraft.

**CCP**

Chinese Communist Party. Since 1949, the ruling body of the State, the military, the communications media, and the judiciary, and the only legal political organization in the People's Republic of China's one-party political dictatorship. Also sometimes referred to as the Communist Party of China (CPC).

**CGWIC**

China Great Wall Industry Corporation. The PRC state-controlled business element of China Aerospace Corporation that furnishes space launch services, space technology, and related equipment.

**CITIC**

China International Trust and Investment Company. The PRC government's premier state-controlled investment bank, which reports to the PRC State Council. CITIC's President, Wang Jun, has a status equivalent to that of a government minister.

**CISC**

Complex Instruction Set Computer. As opposed to RISC, a CISC design uses a much larger instruction set. More instructions permit more efficient compilers; however, it has a cost in terms of chip complexity.

**CLTC**

China Launch and Tracking Control General Administration

**Clustering**

Clustering refers to using a group or collection of control processing units (CPUs), workstations, or boards to accomplish a single task or a group of tasks at greater speed. Examples are the clustering of (1) CPUs on the same board, (2) boards in the same machine, and (3) workstations or machines. In a network, the cluster of workstations forms a virtual machine to accomplish the task collectively. In a network of machines, there is a cluster of clusters. Each machine is a cluster of CPUs, and the



collection of machines is in turn a cluster.

<b>COSTIND</b>	The Commission on Science, Technology, and Industry for National Defense. COSTIND is subordinate to the PRC State Council and oversees military research, development, and acquisition programs in the PRC.
<b>CPU</b>	Central Processing Unit. The essential core of a computer.
<b>CTP</b>	Composite Theoretical Performance. The current metric used for calculating relative computing performance for purposes of export control, CTP gives an estimate of peak performance of a system.
<b>DASA</b>	Daimler-Benz Aerospace AG, the largest defense and aerospace corporation in Germany. Its parent company has since merged with Chrysler Corporation to become the DaimlerChrysler Group. The aerospace unit is now named DaimlerChrysler Aerospace AG. The new company still uses the abbreviated name DASA.
<b>DOD</b>	U.S. Department of Defense
<b>DTSA</b>	Defense Technology Security Administration. In 1998, DTSA was renamed the Technology Security Directorate and placed within the newly-created Defense Threat Reduction Agency (DTRA) in the U.S. Department of Defense.
<b>FAC</b>	Failure Analysis Committee. One of three committees formed by China Great Wall Industry Corporation to investigate the launch failure of the Intelsat 708 satellite in 1996. The other committees are the Failure Investigation Committee (FIC) and Failure Oversight Committee (FOC).
<b>Failure tree analysis</b>	A mode of analysis that seeks to account methodically for all possible causes of a failure and their interrelationships.
<b>Fairing</b>	The “nose cone” portion on a launch vehicle and on some ballistic missiles. The fairing protects the payload from atmospheric loads.
<b>FIC</b>	Failure Investigation Committee. One of three committees formed by China Great Wall Industry Corporation to investigate the launch failure of the Intelsat 708 satellite in 1996. The other committees are the Failure Analysis Committee (FAC) and Failure Oversight Committee (FOC).



<b>FOC</b>	Failure Oversight Committee. One of three committees formed by China Great Wall Industry Corporation to investigate the launch failure of the Intelsat 708 satellite in 1996. The FOC was an oversight committee that was over the FAC and the FIC.
<b>Frame</b>	Part of an Inertial Measurement Unit of the guidance system on a rocket or ballistic missile. A unit may contain three or four frames, each accounting for motion on a different axis. For example, a frame may account for vertical, horizontal, and one or more aspects of diagonal motion. The “Inner” frame is that closest to the instruments on the central platform of the Inertial Measurement Unit. The “Outer” frame is that farthest from the central platform. The “Follow-on” frame is a fourth frame or gimbal that is added to help to prevent a guidance system from becoming dysfunctional when the rocket or missile makes sudden movements out of the previous attitude for flight. Also called a “frame gimbal” or “gimbal.”
<b>Gigaflop</b>	Also GFLOP. One billion floating point operations per second.
<b>Gimbal</b>	Part of an Inertial Measurement Unit, which in turn is part of the guidance mechanism for a rocket or missile. Also called a “frame.” See “Frame” above.
<b>GSC</b>	Loral’s Government Security Committee
<b>HPC</b>	High Performance Computer. The term used since 1996 for a class of computers in the mid-range of the computing performance scale. Presently these computers are in the speed range of 1,500-40,000 MTOPS. HPC replaces the now-obsolete term “supercomputer.”
<b>HSCI</b>	Hughes Space & Communications International, Inc., referred to as “Hughes” throughout this Report. Aerospace company headquartered in El Segundo, CA; a subsidiary of Hughes Electronics Corporation. Hughes built the Optus B2 and Apstar 2 satellites.
<b>ICBM</b>	Intercontinental Ballistic Missile. A ballistic missile designed with a maximum range of 3,100 miles (5,000 km) or greater. ICBMs are strategic weapons and typically carry nuclear warheads.
<b>IMU</b>	Inertial Measurement Unit. Part of the guidance system on rockets, ballistic missiles, and certain other aerospace systems used to furnish information about changes in attitude and acceleration.



<b>INTEC</b>	International Underwriters, Inc. is the former name of AXA Space, Inc., a Bethesda, Maryland-based space insurance underwriting company.
<b>Intelsat</b>	The International Telecommunications Satellite Organization (Intelsat) is the world's largest commercial satellite communications services provider. Founded in 1964, Intelsat is a consortium of 143 countries that owns and manages a constellation of communications satellites.
<b>IOT</b>	Independent Oversight Team. Hired by Hughes and the PRC during Apstar 2 launch failure analysis. Found discrepancies in PRC's Coupled Load Analysis.
<b>IRC</b>	Independent Review Committee. See definition below.
<b>Independent Review Committee</b>	A committee of U.S. and European scientists/engineers formed in the spring of 1996 at the request of the China Great Wall Industry Corporation to perform an independent assessment of the PRC investigation of the causes of the Intelsat 708-Long March 3B launch failure that occurred on February 15, 1996. The Independent Review Committee included scientists from Space Systems/Loral and Hughes and was chaired by Dr. Wah Lim of Space Systems/Loral.
<b>ISB</b>	International Space Brokers. A space insurance brokerage firm based in Rosslyn, Virginia.
<b>ITAR</b>	The International Traffic in Arms Regulations. These federal regulations, which appear at 22 CFR Part 120 et seq., implement Section 38 of the Arms Export Control Act.
<b>Iridium</b>	The generic name of both a satellite constellation providing global commercial communications service, and the company that owns it. Iridium satellites are manufactured by Lockheed-Martin and are launched from sites around the world, including Taiyuan, PRC.
<b>J&amp;H</b>	J&H Marsh & McLennan, Inc. is a multinational, privately-held company formed from the combination of Johnson & Higgins and Marsh & McLennan. It controls the largest international insurance brokerage system in the world.



<b>Launch Vehicle</b>	A launch vehicle is a rocket used to launch a satellite into orbit. It typically includes several liquid- or solid-propellant stages, along with guidance and control systems. Many of the systems and components of a launch vehicle are common to ballistic missiles.
<b>Legacy Codes</b>	Classified U.S. computer codes derived from nuclear weapons testing data. The legacy codes are used by scientists to understand processes within a thermonuclear warhead. These codes are useful for adapting or modifying weapons designs, for evaluating new weapons designs, and for judging weapon stability over time and stockpile maintenance needs.
<b>Lop Nur</b>	Nuclear weapons test site in the PRC
<b>Loral</b>	Space Systems/Loral Corporation, builder of the Intelsat 708 satellite.
<b>Mabuhay</b>	A satellite manufactured by Space Systems/Loral for the Mabuhay Philippines Satellite Corporation. The satellite was launched on August 19, 1997 from the PRC's Xichang Space Launch Complex aboard a Long March 3B rocket; later renamed Agila 2.
<b>MEI</b>	Ministry of Electronics Industry. Now known as the Ministry of Information Industry (MII), it is the PRC government ministry responsible for the development of the electronics industry.
<b>MID</b>	Military Intelligence Department. The primary military intelligence agency in the PRC. Also known as the Second Department of the PLA General Staff. Headed by General Ji Shengde since 1992.
<b>MII</b>	Ministry of Information Industry. It is the PRC government ministry responsible for the development of the electronics industry. Formerly known as the Ministry of Electronics Industry (MEI).
<b>MIRV</b>	Multiple Independently Targetable Reentry Vehicle. The technology that permits a single ballistic missile to carry multiple warheads and target them independently.
<b>MPP</b>	Massively Parallel Processor. This is a collection of building block computers in one computer. Each building block comput-



er could be on an individual board (each board would be a physically separate computer with only the minimum items needed to make a working computer CPU, Memory, Input/Output), and each board could talk to any other board via a common system bus. A system bus connects all the boards in the MPP computer together, allowing each board to pass data or instructions from any one board to any other. This transfer of data is done through the Input/Output portion of each board.

<b>MSS</b>	Ministry of State Security. The principal domestic and foreign intelligence agency of the PRC. See also MID.
<b>MTOPS</b>	Millions of Theoretical Operations per Second. A generic metric for the performance of computers. A higher number indicates faster performance. For example, a 450 Mhz Pentium II processor has an MTOPS rating of approximately 467.
<b>MPT</b>	Ministry of Post and Telecommunications. Controls the PRC's state-controlled communications infrastructure.
<b>MTCR</b>	Missile Technology Control Regime. Created in April 1987 by Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States to limit the proliferation of missiles capable of delivering weapons of mass destruction.
<b>Network</b>	A network of workstations or of machines is a collection of two or more individual and complete machines that are connected externally by a dedicated communications path to and from a switch. The switch allows communications between each machine.
<b>NIO</b>	National Intelligence Officer. A U.S. intelligence analyst with specific country or subject-matter expertise.
<b>NSC</b>	U.S. National Security Council
<b>ODTC</b>	Office of Defense Trade Controls, U.S. Department of State
<b>Optus</b>	The family name of several geosynchronous communications satellites manufactured by Hughes Space & Communications Corporation for Optus Communications PTY Ltd. of Australia. The Optus B1, B2, and B3 satellites were launched on Long March 2E rockets from Xichang Space Launch Center in the PRC.





<b>Payload</b>	A commercial payload consists of the object(s) that are to be placed into orbit by a rocket. A military payload is usually a warhead or a military satellite for the purpose of reconnaissance or communications.
<b>PBV</b>	Post Boost Vehicle. The final stage of an ICBM. The PBV has its own guidance and propulsion system, and is programmed to release several reentry vehicles (see MIRV) along different ballistic trajectories so that they strike different targets. Modern PBVs also include the ability to dispense decoys and other countermeasures.
<b>PICC</b>	People's Insurance Company of China. Based in Beijing, PICC is a state-owned insurance company dealing in all types of insurance coverage in international insurance markets.
<b>PLA</b>	People's Liberation Army. The national military of the PRC and the largest standing army in the world. All branches of the PRC military, including the Army, Navy, and Air Force, are part of the PLA.
<b>PRC</b>	People's Republic of China. The defacto government of mainland China established by Mao Zedong in 1949. The Communist government of China was first recognized by the United States in 1979.
<b>RISC</b>	Reduced Instruction Set Computer. As opposed to CISC, a RISC computer uses a much shorter instruction set, meaning it allows fewer machine instructions. This permits a much simpler chip design that can run at much higher speeds.
<b>ROC</b>	Republic of China. The democratic successor government to the pre-Communist government of mainland China, located on the island of Taiwan. Since 1979, U.S. dealings with the ROC have been conducted pursuant to the Taiwan Relations Act.
<b>Satellite</b>	Military or civilian equipment designed to operate in orbit around the Earth. Satellites are used in many roles, including weather forecasting, communications (radio, television, telephone, data services), scientific research, and surveillance.
<b>SMP</b>	Symmetrical Multiprocessor. This is a computer with multiple CPUs that is treated as a single fast CPU. Although an SMP uses multiple CPUs, it is actually performing sequential processing.



<b>Space Launch Vehicle</b>	A space launch vehicle is a rocket used to launch a satellite into orbit. It typically includes several liquid- or solid-propellant stages, along with guidance and control systems. Many of the systems and components of a launch vehicle are common to ballistic missiles.
<b>SS/L</b>	Space Systems/Loral, referred to as “Loral” throughout this Report. Aerospace company headquartered in Palo Alto, CA; a subsidiary of Loral Space and Communications, Ltd. Loral built the Intelsat 708 satellite.
<b>Supercomputer</b>	An obsolete term for a powerful computer. The term was replaced in January 1996 in Export Administration Regulations with the term “high performance computer.”
<b>TEM</b>	Technical Exchange Meeting. A technical meeting between engineers from different organizations for the purposes of discussing and exchanging technical information about the applicable project. A typical satellite design and development program involves many TEMs in order to share information, plan and coordinate engineering activities, and resolve technical issues.
<b>Teraflop</b>	Also TFLOP. One trillion floating point operations per second.
<b>TFLOP</b>	See “Teraflop” above.
<b>TIM</b>	Technical Interface Meeting. See “TEM” above.
<b>Torque motor</b>	A motor that receives information from the frames in the inertial measurement unit about changes in attitude of a rocket or missile, which in turn helps to correct the attitude of the rocket or missile, as needed. For further information, see “Frame” and “Inertial Measurement Unit” above.
<b>TTCP</b>	Technology Transfer Control Plan. Required in connection with U.S. satellite launches in the PRC.
<b>Underwriter</b>	A space insurance underwriter provides satellite owners and manufacturers with space insurance for launch and in-orbit phases of a satellite launch.
<b>Voluntary Disclosure</b>	Reports prepared by Loral and Hughes to explain to U.S. Government authorities the unlicensed participation by Loral



and Hughes officers and employees in a PRC review of the technical causes of a PRC rocket crash. Although termed “voluntary,” the reports were prepared at the insistence of the State Department, which had previously learned through a newspaper article of violations of export control laws by Loral and Hughes.

**XSLC**

Xichang Space Launch Center; phonetic Shee-chang. A space-launch facility located on a PLA military base in Xichang, PRC. The Intelsat 708 satellite launch failure occurred at XSLC.

