

Space and Technology Policy Group, LLC

# MARCIA S. SMITH'S PUBLICATIONS

By category, in reverse chronological order, as of February 2020

NOTE: This list does not include the more than 5,000 articles and fact sheets written for and published on <a href="SpacePolicyOnline.com">SpacePolicyOnline.com</a> since 2009

# SELECTED PUBLICATIONS

- U.S. Space Cooperation Policy and Latin America (Co-authored with Laura Delgado López) <u>In:</u> Arévalo-Yepes, Ciro and Sylvia Ospina, eds. Global Perspectives on Regional Cooperation in Space: Policies, Governance and Legal Tools. International Academy of Astronautics, Paris, France, 2017. pp. 6-19.
- <u>The Debate About The Future of Human Spaceflight 30 Years On.</u> Aviation Week & Space Technology IdeaXchange, January 8, 2015. (weblink only) [Republished as "Go to Mars Nonstop." Aviation Week & Space Technology, Feb. 1, 2015, p. 74.]
- NASA's Strategic Direction and the Need for a National Consensus. Report of the National Research Council Committee on NASA's Strategic Direction. National Academies Press, December 2012. 80 pp. [I was a member of the NRC committee that wrote this report.]
- President Obama's National Space Policy: A Change in Tone and a Focus on Space Sustainability. Space Policy (v. 27, issue 1), February 2011, pp. 20-23.
- The 2010 U.S. National Space Policy and Its Potential for Upholding the Principles of the Outer Space Treaty Regime. Remarks to the 5<sup>th</sup> Eilene M. Galloway Symposium on Critical Issues in Space Law, December 2, 2010, Washington, DC. In: Jorgenson, Corinne (ed.) Proceedings of the International Institute of Space Law (2010). American Institute of Aeronautics and Astronautics, Washington, DC, 2011. Pp. 692-696.
- Economics and Security: Resourcing National Priorities the Space Program. In: Lloyd, Richmond M. ed. Economics and Security: Resourcing National Priorities. Proceedings of a Workshop Sponsored by the William B. Ruger Chair of National Security Economics. 19-21 May 2010. U.S. Naval War College, Newport, RI. Number 5. pp. 245-257.
- Economic and Societal Benefits of Peace in Space: Today and Tomorrow (with C. Jorgenson). Presented to the 4<sup>th</sup> Eilene M. Galloway Symposium on Critical Issues in Space Law, December 10, 2009, Washington, DC. In: Jorgenson, Corinne (ed). Proceedings of the International Institute of Space Law (2009). American Institute of Aeronautics and Astronautics, Washington, DC, 2010. pp. 536-545.

# **COMPLETE LIST (1973-PRESENT)**

Congressional Research Service (CRS): 1975-2006

Testimony to Congressional Committees

Congressional Committee Prints

CRS Reports for Congress

CRS Issue Briefs and Other CRS Publications

Non-CRS Publications: 1973-present

Contributions to Books

Articles, Symposia Papers, and Book Reviews

# **CONGRESSIONAL RESEARCH SERVICE (CRS): 1975-2006**

The Congressional Research Service (CRS) is a department of the U.S. Library of Congress. It provides objective, non-partisan research and analysis exclusively for the Members and committees of the U.S. Congress. Some of that research and analysis is provided in written form and made available for general distribution to any Member or committee of Congress, who then may share it with the public. By law, CRS is not permitted to provide its reports directly to the public, although many CRS reports find their way onto the Internet through other sources. During my 31 years at CRS, I always covered the space program, but also a number of other topics as congressional needs dictated, especially nuclear energy and telecommunications issues. The latter included technology policy aspects of Internet issues like privacy and identify theft. In the lists below, I am the sole author of the report unless otherwise designated. In some cases, the reports were written with others in CRS so I describe myself as a "coauthor" or, if my role was comparatively small, as a "contributor." In other cases I was not only a coauthor, but also the project manager, which in CRS-speak is a "coordinator."

#### TESTIMONY TO CONGRESSIONAL COMMITTEES

While at CRS, I testified at hearings before congressional committees on a number of occasions. Following is list of the written statements I prepared. Beginning with the 107<sup>th</sup> Congress, this testimony has been made available on the relevant committee's website. Previously, it was published as part of the hearing record by the U.S. Government Printing Office.

- NASA's Space Station Program: Evolution of Its Rationale and Expected Uses. Testimony before the Senate Commerce, Science, and Transportation Committee. Subcommittee on Science and Space. Hearing. 109<sup>th</sup> Congress, 1<sup>st</sup> session. Apr. 20, 2005. Available at the committee's website.
- Potential International Cooperation in NASA's New Exploration Initiative. Testimony before the Senate Commerce, Science, and Transportation Committee. Subcommittee on Science, Technology, and Space. Hearing. 108th Congress, 2nd session. Apr. 27, 2004. Available at the committee's website.
- The U.S. Human Space Flight Program and the Space Shuttle Columbia Accident. Testimony before the Senate Commerce, Science, and Transportation Committee. Subcommittee on Science, Technology, and Space. Hearing. 108th Congress, 1st session. Apr. 2, 2003. Available at the committee's <a href="website">website</a>.
- NASA's Space Station Program: Evolution and Current Status. Testimony before the House Science Committee. In: U.S. Congress. House. Committee on Science. Space Station Cost

Overruns. Hearing. 107th Congress, 1st session. Apr. 4, 2001. Available at the committee's website.

- Commercial Space Activities. Testimony before the House Science Committee. Subcommittee
  on Space and Aeronautics. In: U.S. Congress. House. Committee on Science. Financing
  Commercial Space Ventures. Hearing. 106th Congress, 2nd session. July 18, 2000. U.S. Govt.
  Print. Off.
- NASA's Space Station Program. Testimony before the House Science Committee. Subcommittee on Space and Aeronautics. In: U.S. Congress. House. Committee on Science. Fiscal Year 2000 NASA Authorization, Parts I-V. Hearing. 106th Congress, 1st session. Feb. 25, 1999. U.S. Govt. Print. Off.
- NASA at 40. Statement for the Record. House Science Committee. Subcommittee on Space and Aeronautics. In: U.S. Congress. House. Committee on Science. NASA At 40: What Kind of Space Program Does America Need for the 21st Century? Hearing. 105th Congress, 2d session. Oct. 1, 1998. U.S. Govt. Print. Off.
- NASA's Space Station Program. Testimony before the Senate Commerce, Science, and Transportation Committee. Subcommittee on Science, Technology and Space. In: U.S. Congress. Senate. Committee on Commerce, Science, and Transportation. International Space Station. Hearing. 105th Congress, 1st session. June 18, 1997. U.S. Govt. Print. Off.
- NASA's FY1998 Budget Request. Testimony before the Senate Commerce, Science, and Transportation Committee. Subcommittee on Science, Technology and Space. In: U.S. Congress. Senate. Committee on Commerce, Science, and Transportation. National Aeronautics and Space Administration FY1998 Budget. Hearing. 105th Congress, 1st session. Apr. 24, 1997. (Accompanied by David Radzanowski) U.S. Govt. Print. Off.
- Russia's Participation in the International Space Station. Testimony before the House Science Committee. In: U.S. Congress. House. Committee on Science. The Status of Russian Participation in the International Space Station Program. Hearing. 105th Congress, 1st session. Feb. 12, 1997. U.S. Govt. Print. Off.
- The Space Station Program: Progress and Challenges 1995-1996. Testimony before the Senate Commerce, Science and Transportation Committee. Subcommittee on Science, Technology and Space. In: U.S. Congress. Senate. Committee on Commerce, Science, and Transportation. Fiscal Year 1997 NASA Budget. Hearing. 104th Congress, 2nd session. Mar. 26, 1996. U.S. Govt. Print. Off.
- The Space Station Program: Progress and Challenges. Testimony before the Senate Commerce, Science and Transportation Committee. Subcommittee on Science, Technology and Space. In: U.S. Congress. Senate. Committee on Commerce, Science, and Transportation. Hearing on the NASA Space Station Program. Hearing. 104th Congress, 1st session. May 23, 1995. U.S. Govt. Print. Off.
- Russian-American Space Cooperation and the Space Station. Testimony before the House Science, Space and Technology Committee. Subcommittee on Space. In: U.S. Congress. House. Committee on Science, Space and Technology. United States-Russian Cooperation in the Space Station Program: Parts I and II. Hearing. 103rd Congress, 1st session. Oct. 6, 14, 1993.

- NASA and the Space Station Program: Management Issues. Testimony before the House Government Operations Committee. Subcommittee on Legislation and National Security. In: U.S. Congress. House. Committee on Government Operations. National Aeronautics and Space Administration: Major Management Issues. Hearing. 103rd Congress, 1st session. Oct. 6, 1993.
- Implementation of the Augustine Committee Recommendations: Congressional Issues. Testimony before the House Science, Space and Technology Committee. In: U.S. House. Committee on Science, Space and Technology. Review and Implementation of the Report of the Advisory Committee on the Future of the U.S. Space Program. Hearing. 102nd Congress, 1st session. Jan. 3, 29, 31, 1991.
- The Soviet Space Program. Testimony before the Senate Committee on Commerce, Science and Transportation. Subcommittee on Science, Technology and Space. In: U.S. Senate. Committee on Commerce, Science and Transportation. Comparative Assessment of U.S. Space Program. Hearing. 101st Congress, 1st session. July 19, 1989.
- Strategic Defense Initiative. Testimony before the House Appropriations Committee, Subcommittee on Defense. In: U.S. House Committee on Appropriations. Department of Defense Appropriations for 1985: Part 5. Hearing. 98th Congress, 2d session. 1984.
- Unified Space Command. Testimony before the House Armed Services Committee. Subcommittee on Research and Development. In: U.S. House Committee on Armed Services. H.R. 3073: People Protection Act. Hearing. 98th Congress, 1st session. Nov. 10, 1983.

### CONGRESSIONAL COMMITTEE PRINTS

These reports were written at the request of and published by committees of the U.S. Congress. The U.S. Government Printing Office, Washington, D.C., is the publisher.

- Astronauts and Cosmonauts: Biographical and Statistical Data. (Published in 1993, 1989, 1985, 1983, 1981, 1978, 1977, 1976 and 1975.)
   U.S. House Committee on Science, Space and Technology. Coordinator and Co-Author.
- The Post-Soviet Space Program. In: U.S. Congress. Joint Economic Committee. The Former Soviet Union in Transition: Vol. 2. 1993. pp. 629-647.
- Commercial Space Launch Services: The U.S. Competitive Position. U.S. Congress. House Committee on Science, Space and Technology. 1991. 124 pp. Co-Author.
- China's Space Program. In: U.S. Congress. Joint Economic Committee. China's Economic Dilemmas in the 1990s: The Problems of Reforms, Modernization, and Interdependence. 1991. pp. 599-610.
- Space Law and Related Documents. U.S. Senate. Committee on Commerce, Science and Transportation. June 1990. 605 pp. Coordinator and Co-Author.
- Satellite Technology and World Food Security. U.S. House Select Committee on Hunger. 1989.
   53 pp. Co-Author. Also published as CRS Report 89-566 RCO

- Soviet Space Programs: 1981-1987. Parts 1 and 2. U.S. Senate. Committee on Commerce, Science, and Transportation. Part 1, 1988. Part 2, 1989. 551 pp. Coordinator and Co-Author.
- Soviet Space Programs: 1976-1980 (with Supplementary Data Through 1983). Parts 1-3. U.S. Senate. Committee on Commerce, Science, and Transportation. Part 1, 1982. Part 2, 1984. Part 3, 1985. 1125 pp. Coordinator and Co-Author.
- Insurance and the Commercialization of Space. U.S. Senate. Committee on Commerce, Science, and Transportation. 1985. 43 pp. Coordinator and Co-Author.
- Policy and Legal Issues Involved in the Commercialization of Space. U.S. Senate Committee on Commerce, Science, and Transportation. 1983. 51 pp. Coordinator and Co-Author.
- United States Civilian Space Programs. Vol. 1 & 2. U.S. House Committee on Science and Technology. Vol. 1, 1981, 1339 pp. Vol. 2, 1983, 381 pp. Coordinator and Co-Author.
- Subjects and Policy Areas for the Consideration of the House Committee on Science and Technology: 98th Congress. U.S. House Committee on Science and Technology. 1983. Co-Author.
- Energy Initiatives of the 96th Congress. U.S. Senate Committee on Energy and Natural Resources. 1982. 250 pp. Co-Author.
- The Strategic Future: Anticipating Tomorrow's Crises. U.S. House Committee on Energy and Commerce. 1981. Co-Author.
- Pursuing Energy Supply Options: Cost Effective R&D Strategies. U.S. Joint Economic Committee. 1981. 354 pp. Co-Author.
- The 1979 World Administrative Radio Conference: Issues Concerning U.S. Preparatory Activities for ITU Conferences. Appendix to hearings on International Data Flow. U.S. House Committee on Government Operations. 1980. pp. 807-843.
- Alternative Breeding Cycles for Nuclear Power: An Analysis (Revised Aug. 1980). U.S. House Committee on Science and Technology. 1980. 124 pp. Coordinator and Co-Author.
- Subject and Policy Areas for the Consideration of the House Committee on Science and Technology: 96th Congress. U.S. House Committee on Science and Technology. 1979. 198 pp. Co-Author.
- Congress and Foreign Policy, 1978. U.S. House Committee on Foreign Affairs. 1979. 216 pp. Co-Author.
- Energy Initiatives of the 95th Congress. U.S. Senate Committee on Energy and Natural Resources. 1979. 338 pp. Co-Author.
- 95th Congress and Energy Policy. U.S. House Committee on Interstate and Foreign Commerce. 1979. 67 pp. Contributor.

- United States Civilian Space Programs: An Overview. U.S. House Committee on Science and Technology. 1978. 182 pp. Coordinator and Co-Author.
- International Space Activities. Part III: Summary of Hearings and Panel Recommendations. U.S. House Committee on Science and Technology. 1978. Co-Author.
- Alternative Breeding Cycles for Nuclear Power: An Analysis. U.S. House Committee on Science and Technology. 1978. Co-Author.
- Possibility of Intelligent Life Elsewhere in the Universe (Revised Oct. 1977). U.S. House Committee on Science and Technology. 1977. 126 pp.
- World Wide Space Activities. U.S. House Committee on Science and Technology. 1977. House Document 95-352. 606 pp. Co-Author.
- Technology Transfer and Scientific Cooperation Between the United States and the Soviet Union: A Review. Part III, Chapter 1: U.S.-U.S.S.R. Agreement for Cooperation in Space. U.S. House Committee on International Relations. 1977.
- Soviet Space Programs 1971-1975. Vol. 1, Chapter 3: Man-Related Space Activities. U.S. Senate Committee on Aeronautical and Space Sciences. 1976. pp. 173-242.
- Possibility of Intelligent Life Elsewhere in the Universe. U.S. House Committee on Science and Technology. 1975. 76 pp.

## **CRS REPORTS FOR CONGRESS**

"CRS Reports for Congress" are one type of CRS product written in response to congressional inquiries. They are published by CRS as general distribution reports available to any Member or committee of Congress. See the separate listing below for other CRS products such as Issue Briefs. Many of these reports were updated regularly (daily, weekly or monthly) over months or years. The initial date of publication is shown, and where possible, the last update for which I was responsible before retiring from CRS in February 2006. One variant was a "6-page report" whose length could not exceed 6 pages under any circumstances, making updating a challenge. The other type of CRS Report for Congress had no predetermined page limit.

- The National Aeronautics and Space Administration: Overview, FY2007 Budget in Brief, and Key Issues for Congress. February 16, 2006. CRS Report RS 22381. 6 pp. Co-Author.
- The International Space Station and the Iran Nonproliferation Act (INA): The Bush Administration's Proposed INA Amendment. Originated September 19, 2005; updated regularly through Feb. 28, 2006. CRS Report RS22270. 6 pp. Co-Author.
- The National Aeronautics and Space Administration: Overview, FY2006 Budget in Brief, and Key Issues for Congress. Initiated February 23, 2005; updated regularly through Feb. 28, 2006. CRS Report RS22063. 6 pp. Co-Author.
- Spyware: Background and Policy Issues for Congress. Initiated December 21, 2004, regularly updated through Feb. 28, 2006. CRS Report RL32706. 14 pp.

- Space Exploration: Overview of President Bush's New Exploration Initiative, and Key Issues for Congress. Originated January 27, 2004, regularly updated through Feb. 28, 2006. CRS Report RS21720. 6 pp.
- China's Space Program: An Overview. Originated October 10, 2003, regularly updated through Feb. 28, 2006. CRS Report RS21641. 6 pp.
- Military Space Programs: Issues Concerning DOD's Space-Based InfraRed System (SBIRS).
   Originated February 12, 2002, regularly updated through Feb. 28, 2006. CRS Report RS21148.
   6 pp.
- Wireless Privacy and Spam: Issues for Congress. Originated November 8, 2002 as *Wireless Privacy: Availability of Location Information for Telemarketing*; frequently updated through Feb. 28, 2006. CRS Report RL31636. Approx. 20 pp.
- Internet: Status Report on Legislative Attempts to Protect Children From Unsuitable Material on the Web. Regularly updated through Feb. 28, 2006. Originated as *Internet: Status of Legislative Attempts to Protect Children from Unsuitable Material on the Web* on October 3, 2002. CRS Report RS21328. 6 pp.
- The National Aeronautics and Space Administration's FY2006 Budget Request: Description, Analysis, and Issues for Congress. Originated July 11, 2005, frequently updated through Feb. 28, 2006. CRS Report RL32988. Approx. 50 pp. Co-Author.
- Science and Technology Policy: Issues for the 109th Congress. March 30, 2005; updated occasionally through Feb. 28, 2006. CRS Report RL32837. 50 pp. Coordinator and Co-Author.
- Science, State, Justice, Commerce and Related Agencies (House)/Commerce, Justice, Science and Related Agencies (Senate): FY2006 Appropriations. June 13, 2005. CRS Report RL32885. Approx. 60 pp. Contributor.
- Identity Theft: The Internet Connection. March 16, 2005. CRS Report RS22082. 6 pp.
- Federal Research and Development Funding: FY2006. Initiated March 2005, regularly updated through Feb. 28, 2006. CRS Report RL32799. Contributor.
- The Iran Nonproliferation Act and the International Space Station: Issues and Options. March 2, 2005. CRS Report 22072. 6 pp. Co-Author.
- Satellite Television and "Digital White Areas": Provisions of the 2004 Satellite Home Viewer Extension and Reauthorization Act. December 2, 2004. CRS Report RS21990. 6 pp.
- The National Aeronautics and Space Administration's FY2005 Budget Request: Description, Analysis, and Issues for Congress. Originated November 19, 2004; frequently updated. CRS Report RL32676. Approx. 40 pp. Co-Author.
- Appropriations for FY2005: VA, HUD, and Independent Agencies. Frequently updated (originated July 6, 2004). CRS Report RL32304. 25 pp. Contributor.

- Space Exploration: Report of the Aldridge Commission on Implementation of President Bush's Exploration Initiative. June 21, 2004. CRS Report RS21866. 6 pp. Author.
- Satellite Television: Reauthorization of the Satellite Home Viewer Improvement Act (SHVIA) and Related Issues. Originated March 11, 2004, updated frequently. CRS Report RS21768. 6 pp.
- Hubble Space Telescope: The Decision to Terminate Shuttle Servicing Missions. Originated March 11, 2004. CRS Report RS21767. 6 pp. Co-Author through April 2005.
- The National Aeronautics and Space Administration: Overview, FY2005 Budget in Brief, and Issues for Congress. Originated February 23, 2004, frequently updated. CRS Report 21744. 6 pp. Co-Author.
- Appropriations for FY2004: VA, HUD, and Independent Agencies. Occasionally updated (originated July 2003). CRS Report RL31804. Approx. 75 pp. Contributor.
- NASA's Space Shuttle Columbia: Synopsis of the Report of the Columbia Accident Investigation Board. September 2, 2003. CRS Report RS21606. 6 pp.
- Foreign Relations Authorization, FY2004 and FY2005: An Overview. July 14, 2003. CRS Report RL31986. 43 pp. Contributor.
- The National Aeronautics and Space Administration's FY2004 Budget Request: Description, Analysis, and Issues for Congress. Originated March 24, 2003, frequently updated. CRS Report RL31821. Approx. 40 pp. Co-Author.
- Science and Technology Policy: Issues for the 108th Congress, 1st Session. CRS Report RL31846. Approx. 40 pp. Originated April 4, 2003, updated semi-annually. Coordinator and Co-Author.
- The Aerospace Commission Report: A Synopsis, and Commission Recommendations for Congressional Action. March 7, 2003. CRS Report RS 21455. 6 pp. Co-Author.
- The National Aeronautics and Space Administration: Overview, FY2004 Budget in Brief, and Issues for Congress. Originated February 14, 2003; frequently updated; final edition Jan. 28, 2004). CRS Report 21430. 6 pp.
- NASA's Space Shuttle Program: Excerpts From Recent Reports and Hearings Regarding Shuttle Safety. February 10, 2003. CRS Report RS21419. 6 pp. Co-Author.
- NASA's Space Shuttle Columbia: Quick Facts and Issues for Congress. Originated Feb. 3, 2003, frequently updated. CRS Report RS21408. 6 pp.
- Appropriations for FY2003: VA, HUD, and Independent Agencies. Regularly updated (originated June 10, 2002). CRS Report RL31304. Approx. 60 pp. Co-Author.
- Internet Privacy: Overview and Pending Legislation. Regularly updated through Feb. 26, 2006; originated May 3, 2002. CRS Report RL31408. Approx. 20 pp.

- Science and Technology Policy: Issues for the 107th Congress, 2nd Session. April 3, 2002. CRS Report RL31352. Coordinator and Co-Author.
- The National Aeronautics and Space Administration's FY2003 Budget Request: Description, Analysis, and Issues for Congress. April 2, 2002. CRS Report RL31347. 31 pp. Coordinator and Co-Author.
- The National Aeronautics and Space Administration (NASA): Overview, FY2003 Budget in Brief, and Issues for Congress. Regularly updated (originated February 14, 2002). CRS Report RS21150. 6 pp. Coordinator and Co-Author.
- Satellite Television: The Proposed Merger of EchoStar and DirecTV. Regularly updated (originated December 21, 2001). CRS Report RL31226. Approx. 15 pp.
- Missile Defense: The Current Debate. Originated August 2001 and updated frequently. CRS Report RL31111. Approx. 40 pp. Co-Author.
- Satellite Television: Provisions of the Satellite Home Viewer Improvement Act and the Launching Our Communities Access to Local Television Act, and Continuing Issues. Originated January 7, 2000 and frequently updated. CRS Report RS20425. 6 pp.
- "Junk E-Mail": An Overview of Issues and Legislation Concerning Unsolicited Electronic Mail ("Spam"). Originated January 29, 1999 and updated frequently. CRS Report RS20037. 6 pp.
- Internet: An Overview of Key Technology Policy Issues Affecting Its Use and Growth. Originated January 26, 1998, as "Internet: An Overview of Six Key Policy Issues Affecting Its Use and Growth"), and frequently updated. CRS Report 98-67 STM. Approx. 30 pp. Coordinator and Co-Author.
- V-Chip and TV Ratings: Helping Parents Supervise Their Children's Television Viewing. Originated December 30, 1996 and frequently updated. CRS Report 97-43 SPR. 6 pp.
- The Internet and the USA PATRIOT Act: Implications for Electronic Privacy, Security, Commerce, and Government. February 14, 2002. CRS Report RL31289. 19 pp. Coordinator and Co-Author.
- NASA's Space Station Program: the IMCE (Young) Report and Issues for Congress. December 17, 2001. CRS Report RL31216. 21 pp.
- Appropriations and Authorization for FY2002: Defense. August 9, 2001 (updated regularly through February 2002). CRS Report RL31005. 39 pp. Contributor.
- The National Aeronautics and Space Administration's FY2002 Budget Request: Description and Analysis. July 5, 2001 (updated regularly through December 2001). CRS Report RL31037. 22 pp. Co-Author.
- Military Space Issues: Highlights of the Rumsfeld Commission Report and Key Organization and Management Issues. February 21, 2001. CRS Report RS20824. 6 pp.

- Internet Privacy—Protecting Personal Information: Overview and Pending Legislation. January 29, 1999 (regularly updated through May 2002). CRS Report RS20035. 6 pp.
- Internet Privacy: An Analysis of Technology and Policy Issues. December 21, 2000. CRS Report RL30784. 38 pp. Author.
- Satellite Television: An Analysis of Pending Legislation Regarding Loan Guarantees for Providing Local Broadcast TV Signals. March 24, 2000 (updated regularly through January 2001). CRS Report RL30481. 15 pp. .
- Internet—Protecting Children from Unsuitable Material and Sexual Predators: Overview and Pending Legislation. January 29, 1999 (regularly updated through January 2001). CRS Report RS20036. 6 pp.
- Satellite-Delivered Television: Issues Concerning Consumer Access to Broadcast Network Television via Satellite. November 23, 1998 (updated regularly through November 1999). CRS Report 98-942 STM. 6 pp.
- Space Launch Vehicles: Issues Arising From the Unusually High Failure Rate of U.S. Launch Vehicles From August 1998-May 1999. June 29, 1999. CRS Report RS20248. 6 pp.
- Technology Transfer to China: An Overview of the Cox Committee Investigation Regarding Satellites, Computers, and DOE Laboratory Management. June 11, 1999. CRS Report RL30231. 17 pp. Coordinator and Co-Author.
- Space Launch Vehicles: Development of New U.S. Systems. August 7, 1998. CRS Report 98-658 STM. 6 pp. Co-Author.
- China's Space Program: A Brief Overview Including Commercial Launches of U.S.-Built Satellites. CRS Report 98-575 STM. Originated June 23, 1998. (Updated September 3, 1998) 15 pp.
- Protecting Privacy on the Internet: A Summary of Legislative Proposals. December 19, 1997. CRS Report 97-1061 STM. 6 pp. Co-Author.
- U.S.-Russian Space Cooperation: The Shuttle-Mir Program. July 9, 1997. CRS Report 97-685 SPR. 6 pp.
- Computer Security Act. <u>In</u> General Management Laws: A Selective Compendium. June 13, 1997. CRS Report 97-613 GOV. pp. 253-255. Co-Author.
- Clinton and Bush Administration National Space Policies: A Comparative Analysis, January 24, 1997. CRS Report 97-160 SPR. 45 pp. Coordinator and Co-Author.
- Commonly Used Acronyms and Program Names in the Space Program. Revised January 24, 1997. CRS Report 97-144 SPR. 25 pp. Coordinator and Co-Author.
- Encryption Technology: Congressional Issues. November 8, 1996. CRS Report 96-895 SRR. 6 pp.

- Mars: The Search for Life. September 11, 1996. CRS Report 96-754 SPR. 6 pp.
- The Federal Communications Commission: What Role for the Future? June 10, 1996. CRS Report 96-535 SPR. 11 pp. Coordinator and Co-Author.
- Television Violence and Its Impact on Society: An Updated Overview. May 13, 1996. CRS Report 95-144 SPR. 34 pp. Co-Author.
- Space Activities of the United States, C.I.S., and Other Launching Countries/Organizations. Published annually 1982-1985, 1987-1995 (asterisks denote reports that also were published by the House Committee on Science, Space and Technology). Prior to 1992, title was "Space Activities of the United States, Soviet Union . . ." In 1992, title was "Space Activities of the United States and Other . . ." ). July 31, 1995, CRS Report 95-873 SPR. Mar. 29, 1994, CRS Report 94-347.\* Mar. 31, 1993, CRS Report 93-379 SPR. May 11, 1992, CRS Report 92-427 SPR. July 31, 1991, CRS Report 91-621 SPR.\* Mar. 2, 1990, CRS Report 90-171 SPR. Mar. 17, 1989, CRS Report 89-183. Feb. 29, 1988, CRS Report 88-185 SPR.\* Feb. 28, 1987, CRS Report 87-229 SPR.\* Jan. 31, 1985, CRS Report 85-45 SPR. Jan. 15, 1984, CRS Report 84-20.\* Mar. 15, 1983, CRS Report 83-124 SPR.\* Feb. 26, 1982, CRS Report 82-45.\*
- Space Station Program: Progress and Challenges. June 1, 1995. CRS Report 95-674 SPR. 6 pp.
- Major Science and Technology Programs: Science Megaprojects and President Science Initiatives. (Originated in 1992, this SPR-wide report was updated often. The Title changed over the years.) Dec. 10, 1994, CRS Report 95-31 SPR. Mar. 29, 1994, CRS Report 94-312 SPR. Sept. 7, 1993, CRS Report 93-845 SPR. June 15, 1993, CRS Report 93-166 SPR (revision of Feb. 19, 1993 version with same report number). May 1992, CRS Report 92-421. Jan. 1992, CRS Report 92-25 SPR. Contributor.
- The Global Information Infrastructure (GII) and the G-7 Meeting in Brussels: Issues for Congress. Apr. 26, 1995. CRS Report 95-532 SPR. 6 pp. Co-Author.
- Military Space Programs: Issues for the 104th Congress. Jan. 11, 1995. CRS Report 95-95 SPR. 6 pp.
- The Information Superhighway: Status and Congressional Issues. Dec. 29, 1994. CRS Report 95-53 SPR. 6 pp. Co-Author.
- The Information Superhighway: Status and Issues. Dec. 2, 1994. CRS Report 94-954 SPR. 24 pp.
- GPS: Satellite Navigation and Positioning and the DOD's Navstar Global Positioning System. Feb. 15, 1994. CRS Report 94-171 SPR. 52 pp. Co-Author.
- The Information Superhighway and the National Information Infrastructure (NII). Updated Mar. 22, 1994. (Originally issued Feb. 17, 1994.) CRS Report 94-112 SPR. 6 pp. Co-Author. Republished in Journal of Academic Librarianship, May 1994, pp. 93-95; and in Transnational Data and Communications Report, May/June 1994, pp. 33-36.
- NASA's Space Station Program: A New Focus -- Foreign Policy. Updated Feb. 18, 1994. (Originally issued Feb. 1, 1994.) CRS Report 94-70 SPR. 6 pp. (Also published as an appendix

- to: U.S. Congress. House. Committee on Science, Space and Technology. Oversight Visit: Baikonur Cosmodrome. H. Rept. 103-451. Mar. 23, 1994.)
- Russian Space Station Hardware: *Mir*, Proposals for *Mir* 2, and the "Salyut Tug." Sept. 30, 1993. CRS Report 93-870 SPR. 14 pp.
- NASA's Mars Observer Probe: Implications of Its Loss. Sept. 20, 1993. CRS Report 93-829 SPR. 6 pp.
- Soyuz TM, Topaz II, and Other Space Products Available from the Russian Space Program. Mar. 8, 1993. CRS Report 93-291 SPR. 6 pp. (Originally published as Soyuz TM, Topaz II, and Other Space Products Available from the Post-Soviet Space Program. Feb. 20, 1992. CRS Report 92-202 SPR.) 6 pp.
- Japan-U.S. Relations: A Briefing Book. *This CRS-wide report originated in 1990 and was updated several times through 1993*. Feb. 1993, CRS Report 93-231 F. June 1992, CRS Report 92-479 SPR. Nov. 1991, CRS Report 91-401 F. Apr. 1991, CRS Report 91-401 F. Mar. 1990, CRS Report 90-233 F. Oct. 1990, CRS Report 90-233 F. Contributor.
- Space Launch Services--The Competitive Playing Field: A Primer. Dec. 9, 1992. CRS Report 92-933 SPR. 12 pp.
- Clinton-Gore Space Policy: What To Expect. Dec. 3, 1992. CRS Report 92-903 SPR. 6 pp.
- Military Space Programs in a Changing Environment: Issues for the 103d Congress. Dec. 1, 1992. CRS Report 92-879 SPR. 6 pp.
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"CRS Issue Briefs" were another type of CRS product, since discontinued, that focused more closely on the status of legislation. They also were written in response to congressional inquiries, published by CRS, and made available to any Member or committee of Congress. Issue Briefs were updated on a regular basis (at least monthly) to reflect changing legislative or policy status; dates shown here indicate when a brief was originally initiated and, if appropriate, when it was discontinued (archived) because the issue no longer warranted such detailed treatment. The CRS Review (formerly CRS Bulletin) was a journal published for several years by CRS and then discontinued.

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### NOTE ABOUT NATIONAL RESEARCH COUNCIL REPORTS

From 2006-2009, I was Director of the Space Studies Board (SSB) and from 2007-2009 also Director of the Aeronautics and Space Engineering Board (ASEB) at the National Research Council (NRC). The NRC is the operating arm of the National Academies of Sciences, Engineering and Medicine.

More than two dozen reports were published by SSB and ASEB during my tenure; as Board Director I am listed in all of them. However, the authors of those reports are the experts who voluntarily served on the committees that deliberated on the issues and wrote the reports. Thus I do not list them here.

There are four NRC reports for which I am an author, however. Two were written by the 1992-1996 SSB Committee on Human Exploration (CHEX) of which I was a member. Third is the report of the 2010 SSB workshop on *Sharing the Adventure with the Public*, for which I was the rapporteur. Fourth is *NASA's Strategic Direction and the Need for a National Consensus*, conducted under the auspices of the Division on Engineering and Physical Sciences (DEPS), the parent organization of SSB and ASEB, for which I was a committee member. These reports are listed under "contributions to books."