

Attachment A

Résumés of Commission Members

The Honorable Duane P. Andrews

Mr. Andrews is Corporate Executive Vice President and Director, Science Applications International Corporation (SAIC) (1993 to present). He previously was an officer in the United States Air Force (1967-77), a professional staff member with the House Permanent Select Committee on Intelligence (1977-89), and the Assistant Secretary of Defense for Command, Control, Communications and Intelligence (1989-93). Mr. Andrews was awarded the Department of Defense Medal for Distinguished Public Service and the National Intelligence Distinguished Service Medal.

Mr. Robert V. Davis

Mr. Davis is President of R.V. Davis & Associates (1997 to present). He previously was a professional staff member of the House Appropriations Committee (1977-95) and Deputy Under Secretary of Defense for Space (1995-97). Mr. Davis was awarded the Secretary of Defense Medal for Outstanding Public Service (1997).

General Howell M. Estes, III, United States Air Force (Retired)

General Estes is President of Howell Estes & Associates, Inc. (1998 to present) and serves as Vice Chairman of the Board of Trustees, The Aerospace Corporation. He entered the United States Air Force in 1965 and served for 33 years. At the time of his retirement in 1998, General Estes was Commander in Chief, North American Aerospace Defense Command, Commander in Chief, United States Space Command, and Commander, Air Force Space Command. He previously served as a consultant to the Defense Science Board Task Force on Space Superiority (1999).

General Ronald R. Fogleman, United States Air Force (Retired)

General Fogleman is president and chief operating officer of the B Bar J Cattle and Consulting Company, Durango Aerospace Incorporated, and a partner in Laird and Company, LLC (1998 to present). He entered the United States Air Force in 1963 and served for 34 years. At the time of his retirement in 1997, General Fogleman was Chief of Staff of the U.S. Air Force. He previously served as the Commander in Chief of the U.S. Transportation Command (1992-94). He serves on the Boards of Directors for International Airline Service Group, DERCO Aerospace, EAST Inc., Mesa Air Group, MITRE Corporation, North American Airlines, Rolls-Royce North America, and World Airways. General Fogleman is a member of the Council on Foreign Relations.

Lieutenant General Jay M. Garner, United States Army (Retired)

General Garner is President of SY Technology (1997 to present). He entered the United States Army in 1962 and served for 35 years. Prior to leaving military service in 1997, he served as Assistant Vice Chief of Staff of the Army (1996-97). Previously he was the Commander of the U.S. Army Space and Strategic Defense Command (1994-96).

The Honorable William R. Graham

Dr. Graham is the Chairman of the Board and President of National Security Research, Inc. (1997 to present). He previously served as the Deputy Administrator of the National Aeronautics and Space Administration (1985-86), Science Advisor to President Reagan and Director of the White House Office of Science & Technology Policy (1986-89), and Member of the Commission to Assess the Ballistic Missile Threat to the United States (1998). He has a Ph.D. in electrical engineering.

General Charles A. Horner, United States Air Force (Retired)

General Horner is a business consultant, author and national defense advisor (1994 to present). He entered the United States Air Force in 1958 and served for 36 years. He served as Commander in Chief, North American Aerospace Defense Command, Commander in Chief, United States Space Command, Commander, Air Force Space Command, and he commanded Allied Air Forces during the 1991 Gulf War.

Admiral David E. Jeremiah, United States Navy (Retired)

Admiral Jeremiah is President of Technology Strategies & Alliances Corporation (1994 to present). Prior to leaving military service in 1994, he served as Vice Chairman, Joint Chiefs of Staff (1990-94) for Generals Powell and Shalikashvili. He serves on the Boards of Directors for several firms, including Litton Industries, Alliant Techsystems Inc., Getronics Government Systems, LLC and Geobiotics, Inc. Admiral Jeremiah serves on various national security and intelligence panels, boards and commissions, including the Defense Policy Board, and a National Reconnaissance Office Advisory Panel.

General Thomas S. Moorman, Jr., United States Air Force (Retired)

General Moorman is a Partner in Booz-Allen Hamilton (1998 to present). He also serves as a member of the Board of Trustees for The Aerospace Corporation, is an Outside Director on the Board of Smiths Industries and is a member of the Defense Policy Board Advisory Committee. He entered the United States Air Force in 1962 and served for 35 years. General Moorman served as Commander of Air Force Space Command (1990-92). At the time of his retirement in 1997, General Moorman was Vice Chief of Staff, United States Air Force. He is a member of the Council on Foreign Relations.

Mr. Douglas H. Necessary

Mr. Necessary is an independent management consultant. He has recently served on several government boards. He served on active duty in the U.S. Army from 1964-1984 and as a professional staff member of the Committee on Armed Services, U.S. House of Representatives (1984-2000).

General Glenn K. Otis, United States Army (Retired)

General Otis serves as a consultant for many defense firms and serves on the Defense Science Board and Ballistic Missile Defense Advisory Committee. Previously he was Senior Vice President of Coleman Research Corporation (1988-96) and Chairman of the Board on Army Science and Technology at the National Academy of Sciences. He entered the United States Army in 1946 and served for 42 years. Prior to leaving military

service in 1988, he served as Commander in Chief, U.S. Army Europe and 7th Army, and Commander, NATO's Central Army Group (1983-88). Previously he commanded the U.S. Army's Training and Doctrine Command (1981-83).

The Honorable Donald H. Rumsfeld*

Mr. Rumsfeld is currently in private business. He serves as Chairman of the Board of Directors of Gilead Sciences, Inc., and on the Boards of Directors of a number of corporations and non-profit organizations. Previously he served as CEO of G.D. Searle & Co. and of General Instruments Corporation, and in a variety of U.S. government posts, including: Naval Aviator, Member of U.S. Congress, U.S. Ambassador to NATO, White House Chief of Staff, Secretary of Defense, Presidential Envoy to the Middle East and Chairman of the Commission to Assess the Ballistic Missile Threat to the United States. He received the Presidential Medal of Freedom, the nation's highest civilian award, in 1977.

Senator Malcolm Wallop (Retired)

Senator Wallop is currently a Senior Fellow with the Heritage Foundation and chairs Frontiers of Freedom, a non-profit public policy organization he established in January 1995. Previously he served as a U.S. Senator from Wyoming (1977-95). In 1977 he was the first elected official to propose a space-based missile defense system. Prior to serving in the U.S. Senate, he was a rancher, a businessman, and a member of the Wyoming Legislature (1969-76).

* The Honorable Donald H. Rumsfeld served as a member and chairman of the Commission from its inception until December 28, 2000, when he was nominated for the position of Secretary of Defense by President-elect George W. Bush.

Attachment B

Résumés of Core Staff of the Commission

Dr. Stephen A. Cambone, Staff Director. Research Director, Institute for National Strategic Studies, National Defense University (1998 to present). Staff Director, Commission to Assess the Ballistic Missile Threat to the United States (1998); Senior Fellow, Center for Strategic and International Studies (1993-98); Director, Strategic Defense Policy, Office of the Secretary of Defense (1990-93); Deputy Director of Strategic Analysis, SRS Technologies (1986-90); Staff Analyst, Los Alamos National Laboratory (1982-86). Ph.D. in political science.

D. Craig Baker, Staff Member. Special Assistant to the Chief Scientist, U.S. Army Space and Missile Defense Command (1999-2000); Concepts and Initiatives Division Chief, Army Space and Missile Defense Battle Lab (1997-98); Plans Director, Army Space Command (1996-97); Space Integration Division Chief, Army Space Command (1990-96); Army Research Fellow, RAND Arroyo Center (1986-88). M.S. in national security strategy. M.S. in systems management.

Barbara Bicksler, Staff Member. Senior Policy Analyst, Strategic Analysis, Inc. (1996 to present). Research Staff Member, Institute for Defense Analyses (1986-95); Analyst, Office of the Assistant Secretary of Defense for Program Analysis and Evaluation (1981-84). Master in Public Policy.

Linda L. Haller, Staff Member. Assistant Bureau Chief (1999 to present) and Senior Legal Advisor (1997-99), International Bureau, Federal Communications Commission (FCC); Senior Counsel, Office of General Counsel, FCC (1994-97); Attorney Advisor, FCC (1991-92); Associate, Morgan Lewis & Bockius (1988-90); Associate, Pierson, Ball & Dowd (1986-88). Juris Doctor.

Delonnie Henry, Staff Member. Committee Clerk, U.S. House Select Committee on U.S. Technology Transfers to the People's Republic of China (1998-99); Commission to Assess the Ballistic Missile Threat to the United States (Rumsfeld Commission) (1998); National Defense University (1993-98). M.Ed.

John Luddy, Staff Member. Senior Policy Advisor, U.S. Senator Jon Kyl (1999-2000); Senior Legislative Assistant, U. S. Senator Bob Smith (1997-99); Military Legislative Assistant, U.S. Senator James Inhofe (1995-97); Defense Policy Analyst, The Heritage Foundation (1992-95); U.S. Marine Corps (1986-89). M.S. in international relations.

Lieutenant Colonel J. Kevin McLaughlin, United States Air Force, Staff Member. Commander, 2d Space Operations Squadron (1998-2000); Chief, Space/Missile Branch, Legislative Liaison (1996-98); Chief, Space Policy, Assistant Secretary of the Air Force (Space) (1995-96); Titan Launch Controller/Deputy for Standards/Evaluation, 45th Space Wing (1991-94). M.A. in space systems management.

William E. Savage, Staff Member. Director of Strategic Development for Space Programs, Litton TASC (1994 to present). National Reconnaissance Office (1986-94); U.S. Air Force Space Program (1967-86). M.S. in astrophysics.

G. Randall Seftas, Staff Member. Project Manager/Lead Engineer, National Aeronautics and Space Administration (1994-Present); Senior Research Engineer, Lockheed Missiles and Space Company (1989-94); Spacecraft Systems Engineer, Booz-Allen & Hamilton (1988-89); Operational Space Systems Engineer, GE Space Systems Division (1984-88). B.S. in aerospace engineering.

Thomas L. Wilson, Jr., Staff Member. Deputy Head, Program Coordination and Liaison Office, Naval Center for Space Technology (1997 to present). Program Manager, Naval Research Laboratory (1992-2000). Professional Staff, Office of the Deputy Under Secretary of Defense for Space (1996-98). B.S. in aerospace engineering.

Department of Defense Liaison

Major General H. J. “Mitch” Mitchell, United States Air Force. Department of Defense Liaison to the Commission to Assess United States National Security Space Management and Organization and Special Assistant to the Assistant Secretary of Defense for Command, Control, Communications and Intelligence. Former National Security Space Architect.

Attachment C

Commission Meetings

July 11, 2000

The Honorable Arthur L. Money	Assistant Secretary of Defense for Command, Control, Communications and Intelligence and DoD Chief Information Officer
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July 26, 2000

The Honorable Porter J. Goss	Co-Chairman, National Commission for the Review of the National Reconnaissance Office and Chairman, Permanent Select Committee on Intelligence, U.S. House of Representatives
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The Honorable J. Robert Kerrey	Co-Chairman, National Commission for the Review of the National Reconnaissance Office and former Vice Chairman, Select Committee on Intelligence, U.S. Senate
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Mr. Ken Colucci	Chief of Staff, National Commission for the Review of the National Reconnaissance Office
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Mr. Art Grant	Executive Staff Director, National Commission for the Review of the National Reconnaissance Office
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July 27, 2000

The Honorable Edward C. "Pete" Aldridge	Chief Executive Officer, The Aerospace Corporation and former Secretary of the Air Force and Director of the National Reconnaissance Office
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August 7, 2000

Mr. Lawrence K. Gershwin	National Intelligence Officer for Science and Technology, National Intelligence Council
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Mr. Marc Berkowitz	Director of Space Policy, Office of the Assistant Secretary of Defense for Command, Control, Communications and Intelligence
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August 8, 2000

LTG John Costello, U.S. Army	Commanding General, U.S. Army Space & Missile Defense Command
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VADM Richard Mayo, USN	Deputy Director, U.S. Navy Space Information Warfare Command & Control
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August 23, 2000

LtGen Emil R. Bedard, USMC	Deputy Chief of Staff for Plans, Policies and Operations, Headquarters, U.S. Marine Corps
Maj Gen H. Marshall Ward, USAF	Director, Special Programs, Office of the Under Secretary of Defense for Acquisition, Technology and Logistics
The Honorable Keith Hall	Assistant Secretary of the Air Force for Space and Director of the National Reconnaissance Office
Mr. David A. Kier	Deputy Director, National Reconnaissance Office

August 24, 2000

Mr. Richard L. Shiffrin	Deputy General Counsel (Intelligence), Department of Defense
Mr. W. Harvey Dalton	Associate Deputy General Counsel (International Affairs and Intelligence), Department of Defense
Mr. Richard K. Sylvester	Assistant Deputy Undersecretary of Defense (Systems Acquisition)
The Honorable John Hamre	President and Chief Executive Officer, Center for Strategic and International Studies and former Deputy Secretary of Defense
Mr. James M. Simon, Jr.	Assistant Director of Central Intelligence for Administration
Mr. Larry Kindsvater	Executive Director, Intelligence Community Affairs, Office of the Director of Central Intelligence
Mr. Charles Allen	Assistant Deputy Director of Central Intelligence for Collection, Office of the Director of Central Intelligence
Mr. John Gannon	Assistant Deputy Director of Central Intelligence for Production and Analysis, Office of the Director of Central Intelligence

September 19, 2000

Lt Gen Robert H. Foglesong, USAF	Deputy Chief of Staff for Air and Space Operations
Brig Gen Daniel P. Leaf, USAF	Director of Operational Requirements
Gen Michael E. Ryan, USAF	Chief of Staff, United States Air Force
Maj Gen Brian A. Arnold, USAF	Director of Space and Nuclear Deterrence, Office of the Secretary of the Air Force for Acquisition

The Honorable Arthur L. Money	Assistant Secretary of Defense for Command, Control, Communications and Intelligence and DoD Chief Information Officer
Mr. Kenneth F. Colucci	Chief of Staff, National Commission for the Review of the National Reconnaissance Office
Mr. Arthur V. Grant	Executive Staff Director, National Commission for the Review of the National Reconnaissance Office

September 20, 2000

Mr. Kevin M. O'Connell	Executive Secretary, National Imagery and Mapping Agency Commission
Lt Gen Michael V. Hayden, USAF	Director, National Security Agency
Mr. Robert R. Soule	Director, Program Analysis & Evaluation, Office of the Secretary of Defense
LTG Edward G. Anderson, III, U.S. Army	Director for Strategic Plans & Policy (J-5), the Joint Staff
LTG James C. King, U.S. Army	Director, National Imagery and Mapping Agency

September 27, 2000

Mr. Larry Kindsvater	Executive Director, Intelligence Community Affairs, Office of the Director of Central Intelligence
Mr. James M. Simon, Jr.	Assistant Director of Central Intelligence for Administration
Gen Larry D. Welch, USAF (Ret.)	President, Institute for Defense Analysis and former Chief of Staff of the Air Force
Mr. Lawrence K. Gershwin	National Intelligence Officer for Science and Technology, National Intelligence Council

September 28, 2000

Ms. Cheryl Roby	Deputy Assistant Secretary of Defense for Programs and Evaluation, Office of the Assistant Secretary of Defense for Command, Control, Communications and Intelligence
The Honorable William S. Cohen	Secretary of Defense
The Honorable Rudy de Leon	Deputy Secretary of Defense
Gen Richard B. Myers, USAF	Vice Chairman, Joint Chiefs of Staff
The Honorable Joan A. Dempsey	Deputy Director of Central Intelligence for Community Management

October 11, 2000

Mr. Albert E. Smith	Executive Vice President, Lockheed Martin Space Systems Company
Mr. James W. Evatt	Executive Vice President, Boeing Space and Communications Group and President, Government Systems
Mr. Tig H. Krekel	President and Chief Executive Officer, Hughes Space and Communications Company
Mr. Timothy W. Hannemann	Executive Vice President and General Manager, TRW Space and Electronics Group

October 12, 2000

The Honorable R. James Woolsey	Partner, Shea & Gardner and former Director of Central Intelligence
RADM J. J. Quinn, USN	Commander, Naval Space Command
The Honorable James R. Schlesinger	Senior Advisor, Lehman Brothers and former Secretary of Defense, former Secretary of Energy, former Director of Central Intelligence

October 17, 2000 *Buckley Air Force Base, Denver, Colorado*

Lt Gen Roger G. DeKok, USAF	Vice Commander, Air Force Space Command
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October 18, 2000 *Peterson Air Force Base, Colorado Springs, Colorado*

Lt Gen Roger G. DeKok, USAF	Vice Commander, Air Force Space Command
Lt Gen Eugene L. Tattini, USAF	Commander, Space and Missile Systems Center
Maj Gen Richard W. Davis, USAF	Director, National Security Space Architect, Office of the Assistant Secretary of Defense for Command, Control, Communications and Intelligence
Gen C. W. Fulford, Jr., USMC	Deputy Commander in Chief, U.S. European Command
COL (P) Richard V. Geraci, U.S. Army	Deputy Commanding General, Army Space, U.S. Army Space and Missile Defense Command
Maj Gen Thomas C. Waskow, USAF	Director of Air and Space Operations, Headquarters Pacific Air Forces
Lt Gen Maxwell C. Bailey, USAF	Commander, Air Force Special Operations Command
LTG Daniel G. Brown, U.S. Army	Deputy Commander in Chief, U.S. Transportation Command

RADM Martin J. Mayer, USN	Director for Strategy, Requirements and Integration (J-8), U.S. Joint Forces Command
RADM Paul Sullivan, USN	Director for Plans (J-5), U.S Strategic Command
MG Gary D. Speer, U.S. Army	Deputy Commander in Chief, U.S. Southern Command

October 19, 2000 *Peterson Air Force Base, Colorado Springs, Colorado*

Maj Gen William R. Looney, III, USAF	Component Commander, U.S. Air Force Space Operations, U.S. Space Command
COL (P) Richard V. Geraci, U.S. Army	Deputy Commanding General, Army Space, U.S. Army Space and Missile Defense Command
CAPT Victor Cerne, USN	Joint Information Operations Center, U.S. Space Command
Col John T. Hill, USMC	Deputy, Naval Space Command
LTG Edward G. Anderson, III, U.S. Army	Deputy Commander in Chief and Chief of Staff, U.S. Space Command
Lt Gen George E.C. Macdonald, Canadian Forces	Deputy Commander in Chief, North American Aerospace Defense Command
Gen Ralph E. Eberhart, USAF	Commander in Chief, U.S. Space Command, Commander in Chief, North American Aerospace Defense Command and Commander, Air Force Space Command

October 25, 2000

Dr. David Whelan	Director, Tactical Technology Office, Defense Advanced Research Projects Agency
Lt Gen George K. Muellner, USAF (Ret.)	Vice President and General Manager-Phantom Works, The Boeing Company and former Principal Assistant to the Secretary of the Air Force for Acquisition
Mr. David A. Kier	Deputy Director, National Reconnaissance Office
Mr. Peter A. Marino	Chairman, National Imagery and Mapping Agency Commission

October 26, 2000

The Honorable Robert M. Gates	Interim Dean, George Bush School of Government and Public Service, Texas A&M University and former Director of Central Intelligence
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October 31, 2000

Mr. Robert S. Zitz	Director, Initiatives Group, National Imagery and Mapping Agency
Mr. Fred Faithful	Director of Analysis and Plans, National Imagery and Mapping Agency
Mr. James M. Simon, Jr.	Assistant Director of Central Intelligence for Administration
Lt Gen Bruce Carlson, USAF	Director for Force Structure, Resources, and Assessment (J-8), the Joint Staff
Mr. David A. Kier	Deputy Director, National Reconnaissance Office
Dr. Lawrence J. Delaney	Assistant Secretary of the Air Force for Acquisition
Lt Gen Ronald T. Kadish, USAF	Director, Ballistic Missile Defense Organization

November 1, 2000

Mr. Andrew W. Marshall	Director, Net Assessment, Office of the Secretary of Defense
Dr. Taylor Lawrence	Vice President, Products and Technology, Northrop Grumman Corporation and former Staff Director, U.S. Senate Select Committee on Intelligence
Mr. David Thompson	President and Chief Executive Officer, Spectrum Astro
Gen Richard B. Myers, USAF	Vice Chairman, Joint Chiefs of Staff
Mr. John Cople	Chief Executive Officer, Space Imaging

November 14, 2000

VADM Lyle G. Bien, USN (Ret.)	Vice President, Government Programs, Teledesic LLC
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November 15, 2000

Brig Gen Douglas J. Richardson, USAF	Commander, Space Warfare Center, Air Force Space Command, Schriever Air Force Base, Colorado
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November 28, 2000

Commission Business

November 29, 2000

The Honorable Daniel S. Goldin	Administrator, National Aeronautics and Space Administration
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November 30, 2000

Commission Business

December 5, 2000

The Honorable George J. Tenet

Director of Central Intelligence

December 12, 2000

Commission Business

December 18, 2000

Commission Business

December 19, 2000

Commission Business

January 3, 2001

Commission Business

January 4, 2001

Commission Business

January 10, 2001

Commission Business

January 11, 2001

Deliver Report

Attachment D

Acknowledgements

The Commissioners wish to express their appreciation to the men and women of the U.S. Government national security space community who took time to discuss national security space organization and management with the Commissioners and the Commission Staff.

In particular, the Commissioners express their thanks to the Honorable Arthur L. Money, Assistant Secretary of Defense for Command, Control, Communications and Intelligence in the Office of the Secretary of Defense and the Honorable Keith Hall, Director of the National Reconnaissance Office.

Special thanks are extended to Major General H. J. “Mitch” Mitchell, USAF, the Department of Defense Liaison to the Commission. His knowledge of the current organization and management of national security space and his persistence in obtaining information for the Commission made its task much easier than it might have been.

The Commissioners would also like to thank the organizations that detailed personnel to staff the Commission: National Defense University, United States Air Force, U.S. Army Space and Missile Defense Command, Naval Research Laboratory, Federal Communications Commission, Goddard Space Flight Center and Central Intelligence Agency.

The National Reconnaissance Office and the Department of Defense’s Washington Headquarters Services provided excellent administrative and logistical support under difficult time constraints. Thanks also are extended to the Central Intelligence Agency’s Printing and Photography Group, which assisted in the design and publication of this report.

Attachment E

Glossary for Organization Charts

AF	Air Force
AFMC/CC	Commander, Air Force Materiel Command
AFRL	Air Force Research Laboratory
AFSPC/CC	Commander, Air Force Space Command
ASAF	Assistant Secretary of the Air Force
ASAF(A)	Assistant Secretary of the Air Force (Acquisition)
ASD (C3I)	Assistant Secretary of Defense (Command, Control, Communications, Intelligence)
C3	Command, Control, Communications
C3ISR	Command, Control, Communications, Intelligence Surveillance and Reconnaissance
CIA	Central Intelligence Agency
CINCNORAD	Commander in Chief, North American Aerospace Defense Command
CINCSPACE	Commander in Chief, United States Space Command
CIO	Chief Information Officer
CJCS	Chairman, Joint Chiefs of Staff
CMS	Community Management Staff
CSAF	Chief of Staff of the Air Force
DAC	Designated Acquisition Commander
DARPA	Defense Advanced Research Projects Agency
DCI	Director of Central Intelligence
DDCI/CM	Deputy Director of Central Intelligence/Community Management
DepSecDef	Deputy Secretary of Defense
DNRO	Director, National Reconnaissance Office
FBI	Federal Bureau of Investigation
J2	Directorate for Intelligence
NRO	National Reconnaissance Office
NSSA	National Security Space Architect
OSR	Office of Strategic Reconnaissance
PEO	Program Executive Officer
SAF/US	Under Secretary of the Air Force
SecAF	Secretary of the Army
SecArmy	Secretary of the Army
SecDef	Secretary of Defense
SecNav	Secretary of Navy
SMC/CC	Commander, Space and Missile Systems Center
USD	Under Secretary of Defense

