

STAFFORD-COVEY TASK GROUP MEMBERS

Colonel James C. Adamson, U.S. Army (Ret.): **CEO, Monarch Precision, LLC, Consulting firm**

Colonel Adamson, a former astronaut, has an extensive background in aerodynamics as well as business management. He received his Bachelor of Science degree in Engineering from the U.S. Military Academy at West Point and his Master's degree in Aerospace Engineering from Princeton University. He returned to West Point as an Assistant Professor of Aerodynamics until selected to attend the Navy Test Pilot School at Patuxent River, Md. in 1979. In 1981 he became Aerodynamics Officer for the Space Shuttle Operational Flight Test Program at the Johnson Space Center's Mission Control Center. Colonel Adamson became an astronaut in 1984 and flew two missions, one aboard Columbia (STS-28) and the second aboard Atlantis (STS-43).

After retiring from NASA in 1992, he created his own consulting firm, Monarch Precision, and was then recruited by Lockheed as President/CEO of Lockheed Engineering and Sciences Company. In 1995 he helped create United Space Alliance and became their first Chief Operating Officer, where he remained until 1999. In late 1999, Colonel Adamson was again recruited to serve as President/CEO of Allied Signal Technical Services Corporation, which later became Honeywell Technology Solutions, Inc. Retiring from Honeywell in 2001, Colonel Adamson resumed part-time consulting with his own company, Monarch Precision, LLC. In addition to corporate board positions, he has served as a member of the NASA Advisory Council Task Force on Shuttle-Mir Rendezvous and Docking Missions and is currently a member of the NASA Advisory Council Task Force on International Space Station Operational Readiness.

Maj. Gen. Bill Anders, USAF Reserve, (Ret.):

Upon graduation in 1955, as an electrical engineer, from the United States Naval Academy, General Anders earned his pilot's wings in 1956. He received a graduate degree in nuclear engineering from the U.S. Air Force (USAF) Institute of Technology while concurrently graduating with honors in aeronautical engineering from Ohio State University. In 1963, he was selected for the astronaut corps. He was the Lunar Module Pilot of Apollo 8 and backup Command Module Pilot for Apollo 11. Among other successful public and private endeavors, General Anders has served as a Presidential appointee to the Aeronautics & Space Council, the Atomic Energy Commission, the Nuclear Regulatory Commission (where he was the first chairman), and as U.S. Ambassador to Norway.

Subsequent to his public service, he joined the General Dynamics Corporation, as Chairman and Chief Executive Officer (1990-1993) and was awarded the National Security Industrial Association's "CEO of the Year" award.

During his distinguished career, General Anders was the co-holder of several world flight records and has received numerous awards including the USAF, NASA, and Atomic Energy Commission's Distinguished Service Medals. He is a member of the National Academy of Engineering, the Society of Experimental Test Pilots, and the Experimental Aircraft Association as well as the founder and President of the Heritage Flight Museum.

Dr. Walter Broadnax:

He is President of Clark Atlanta University in Atlanta. Just prior to coming to Clark, he was Dean of the School of Public Affairs at American University in Washington. Previously, he was Professor of Public Policy and Management in the School of Public Affairs at the University of Maryland, college park, Md., where he also directed The Bureau of Governmental Research. Before joining the University of Maryland faculty, Broadnax served as Deputy Secretary and Chief Operating Officer of the U.S. Department of Health and Human Services; President, Center for Governmental Research, Inc., in Rochester, N.Y.; President, New York State Civil Service Commission; Lecturer and Director, Innovations in State and Local Government Programs in the Kennedy School of Government at Harvard University; Senior Staff Member, The Brookings Institution; Principal Deputy Assistant Secretary for Planning and Evaluation, U.S. Department of Health, Education and Welfare; Director, Children, Youth and Adult Services, State of Kansas and Professor, The Federal Executive Institute, Charlottesville, Va.

He is one of America's leading scholar-practitioners in the field of public policy and management. He has published widely in the field and served in leadership positions in various professional associations: American Political Science Association, American Public Personnel Association, Association of Public Policy and Management, National Association of Schools of Public Affairs and Administration, National Association of State Personnel Executives and the American Society for Public Administration.

Broadnax received his Ph.D. from the Maxwell School at Syracuse University, his B.A. from Washburn University and his M.P.A from the University of Kansas. He is a Fellow of the National Academy of Public Administration and a former trustee of the Academy's Board. In March, he was installed as President of the American Society for Public Administration for (2003-2004). He is a member of the Syracuse University Board of Trustees, Harvard University's Taubman Center Advisory Board and United States Comptroller General Advisory Board. He has also served on several corporate and non-profit boards of directors including the CNA Corporation, Keycorp Bank, Medecision Inc., Rochester General Hospital, Rochester United Way, the Ford Foundation/Harvard University Innovations in State and Local Government Program, the Maxwell School Advisory Board and the National Blue Ribbon Commission on Youth Safety and Juvenile Justice Reform in the District of Columbia.

RADM Walter H. Cantrell, USN (Ret.):

Admiral Cantrell has a long history of successfully solving high profile, technical issues. He is frequently asked to conduct reviews of complex, politically sensitive programs and to make recommendations for corrective actions.

He graduated from the U.S. Naval Academy in 1958 with a Bachelor of Science degree in Naval Science. He also received a master's degree in Naval Architecture, Marine and Naval Engineering and a NavEng (Professional Degree) from the Massachusetts Institute of Technology in 1965. He is a graduate of the Senior Officials in National Security Program, JFK School of Government at Harvard. After an extensive and distinguished naval career, he retired in 1995.

He then joined Global Associates Limited as Executive Director for Technology and Systems. From 1996-1997 he was President of the Signal Processing Systems Division. Most recently, from 1997-2001, he was Program Director, Land Level Transfer Facility, Bath Iron Works, and was responsible for the design and construction of a \$260M state-of-the-art shipbuilding facility. Admiral Cantrell currently serves on NASA's Aerospace Safety Advisory Panel.

Dr. Kathryn Clark:

Kathryn Clark is the Vice President for Education at TIVY, Inc., an exciting game that combines strategy and mathematics in a manner that makes learning fun. Organized competitions for the game have provided a strong motivation for students to improve their skills, resulting in increased standardized math scores. Baseball TIVY has competitions at professional baseball games, with competitors and their parents receiving free tickets to the game. Space TIVY has a National Tournament on Space Day at the National Air & Space Museum the 1st Thursday in May each year.

Clark is also consultant in the fields of space, oceans and education. She consults for the Jean-Michel Cousteau Society, the National Marine Sanctuaries, and the Sea World – Hubbs Institute to enhance the study of oceans and marine wildlife and use the data for education and awareness of the environment of the seas.

She recently completed a job for the Michigan Virtual High School to aid in the development of the Math, Science and Technology Academy. She worked on the vision and mission of the Academy as well as the development of partners as they increase the scope and reach of the program to a national and international scale. Clark recently resigned from her job as NASA's Chief Scientist for the Human Exploration & Development of Space Enterprise.

Having completed a 2-year term as NASA's Chief Scientist for the International Space Station Program, she became the HEDS Chief Scientist in August 2000. She was on leave from the University of Michigan Medical School. As Chief Scientist, Clark worked with scientists from all other areas of NASA to communicate research needs and look for possible collaboration among the science programs at NASA. She also assisted with education and outreach activities related to any human space flight endeavors, including the International Space Station, the shuttle, any expendable launch vehicles intended to further human endeavors in space, and future missions to the Moon and Mars. Clark's particular interest is in "Human Factors"; all the elements necessary for the health, safety, and efficiency of crews involved in long duration space flight. These include training, interfacing with machines and robotics, biological countermeasures for the undesirable physical changes associated with space flight, and the psychological issues that may occur in response to the closed, dangerous environments while traveling in space or living on other planets.

She received both her Master's and Doctoral degrees from the University of Michigan and then joined the faculty in the Department of Cell and Developmental Biology in 1993. She also served as the Deputy Director of the NASA Commercial Space Center, The Center for Microgravity Automation Technology from 1996-1998. CMAT provides imaging technology for use on the Space Station. The primary commercial focus of that Center is on using high fidelity imaging technology for science and education.

Clark's scientific interests are focused on neuromuscular development and adaptation to altered environments. Experiments are performed at the tissue level and include immunocytochemistry and *in situ* hybridization of skeletal muscle and spinal cord grown both *in vivo* and *in vitro*. Clark's experience with NASA began with a neuromuscular development study (NIH.R1) that flew on STS-66 in November of 1994. These experiments were repeated and augmented (NIH.R2) on STS-70 in July of 1995. She was also involved in the Neurolab project flown on STS-90 in May of 1998 and the aforementioned ladybug experiment that flew on STS-93 with Commander Eileen Collins.

Clark is the Chair of the Academic Affairs Committee of Board of Control of Michigan Tech University, the Chair of the Board of Visitors of Western Reserve Academy, and serves on the boards of The Space Day Foundation and Orion's Quest, both education oriented not-for-profit organizations.

She is a past member of the Board of Directors of Women in Aerospace, is an airplane pilot and member of the 99's (the International Society of Women Pilots), and an avid cyclist, swimmer, and cross-country skier. She owns a jazz club in Ann Arbor. She is married to Dr. Robert Ike, a rheumatologist at the University of Michigan Medical School.

Mr. Benjamin A. Cosgrove:
Consultant

Benjamin Cosgrove has a long and distinguished career as an engineer and manager associated with most of Boeing jet aircraft programs. His extensive background in aerospace stress and structures includes having served as a stress engineer or structural unit chief on the B-47, B-52, KC-135, 707, 727, 737, and 747 jetliners. He was Chief Engineer of the 767.

He was honored by Aviation Week and Space Technology for his role in converting the Boeing 767 transport design from a three-man to a two-man cockpit configuration and received the Ed Wells Technical Management Award for addressing aging aircraft issues. He received the National Aeronautics Association's prestigious Wright Brothers Memorial Trophy in 1991 for his lifetime contributions to commercial aviation safety and for technical achievement. He is a member of the National Academy of Engineering and a fellow of both the AIAA and England's Royal Aeronautical Society.

Having retired from his position as Senior Vice President of the Boeing Commercial Airplane Group in 1993 after 44 years of service, he is now a consultant. He holds a Bachelor of Science degree in Aeronautical Engineering and received an honorary Doctorate of Engineering degree from the University of Notre Dame in 1993. Cosgrove is a member of the NASA Advisory Committee's Task Force on International Space Station Operational Readiness.

Mr. Richard O. Covey, USAF (Ret.):
Co-Chair, Return to Flight Task Group
Vice President, Support Operations, Boeing Homeland Security and Services

Richard Covey, a veteran of four Space Shuttle flights, has over 35 years of aerospace experience in both the private and public sectors. He piloted STS-26, the first flight after the Challenger accident, and was commander of STS-61, the acclaimed Endeavor/Hubble Space Telescope first service and repair mission.

Covey is a highly decorated combat pilot and Outstanding Graduate of the Air Force Test Pilot School, holds a Bachelor of Science degree in Engineering Sciences from the USAF Academy and a Master of Science degree in Aeronautics and Astronautics from Purdue University. He served as the USAF Joint Test Force Director for F-15 electronic warfare systems developmental and production verification testing. During his distinguished 16-year career at NASA, he held key management positions in the Astronaut Office and Flight Crew Operations Directorate at JSC. Covey left NASA and retired from the Air Force in 1994.

In his position at Boeing, his organization provides system engineering, facility/system maintenance and operations, and spacecraft operations and launch support to commercial, Department of Defense and other U.S. government space and communication programs throughout the world. Prior to his current position, Covey was vice President of Boeing's Houston Operations.

He has been the recipient of numerous awards such as: two Department of Defense Distinguished Service Medals, the Department of Defense Superior Service Medal, the Legion of Merit, five Air Force Distinguished Flying Crosses, 16 Air Medals, the Air Force Meritorious Service Medal, the Air Force Commendation Medal, the National Intelligence Medal of Achievement, the NASA Distinguished Service Medal, the NASA Outstanding Leadership Medal, the NASA Exceptional Service Medal, and the Goddard and Collier Trophies for his role on STS-61.

Dan L. Crippen, Ph.D.:
Former Director of the Congressional Budget Office

Dr. Dan Crippen has a strong reputation for objective and insightful analysis. He served, until January 3rd of this year, as the fifth Director of the Congressional Budget Office. His public service positions also include Chief Counsel and Economic Policy Adviser to the Senate Majority Leader (1981-1985); Deputy Assistant to the President for Domestic Policy (1987-1988); and Domestic Policy Advisor and Assistant to the President for Domestic Policy (1988-1989), where he advised the President on all issues relating to domestic policy, including the preparation and presentation of the federal budget. He has provided service to several national commissions, including membership on the National Commission on Financial Institution Reform, Recovery and Enforcement.

Crippen has substantial experience in the private sector as well. Before joining the Congressional Budget Office, he was a principal with Washington Counsel, a law and consulting firm. He has also served as Executive Director of the Merrill Lynch International Advisory Council and as a founding partner and Senior Vice President of The Duberstein Group.

He received a Bachelor of Arts degree from the University of South Dakota in 1974, a Master of Arts from Ohio State University in 1976, and Doctor of Philosophy degree in Public Finance from Ohio State in 1981.

Mr. Joseph W. Cuzzupoli:
Vice President and K-1 Program Manager, Kistler Aerospace Corporation

Joseph Cuzzupoli brings to the Task Group more than 40 years of aerospace engineering and managerial experience. He began his career with General Dynamics as Launch Director (1959-1962), and then became Manager of Manufacturing/Engineering and Director of Test Operations for Rockwell International (1962-1966). Cuzzupoli directed all functions in the building and testing of Apollo 6, Apollo 8, Apollo 9 and Apollo 12 flights as Rockwell's Assistant Program Manager for the Apollo Program; he later was Vice President of Operations. In 1978, he became the Vice President and Program Manager for the Space Shuttle Orbiter Project and was responsible for 5000 employees in the development of the Shuttle.

He left Rockwell in 1980 and consulted on various aerospace projects for NASA centers until 1991 when he joined American Pacific Corporation as Senior Vice President. In his current position at Kistler Aerospace (Vice President and Program Manager, 1996 – present) he has primary responsibility for design and production of the K-1 reusable launch vehicle.

He holds a Bachelor of Science degree in Mechanical Engineering from the Maine Maritime Academy, a Bachelor of Science degree in Electrical Engineering from the University of Connecticut and a Certificate of Management/Business Administration from the University of Southern California.

He was a member of the NASA Advisory Council's Task Force on Shuttle-Mir Rendezvous and Docking Missions and is a current member of the NASA Advisory Council's Task Force on International Space Station Operational Readiness.

Charles C. Daniel, Ph.D.:
Engineering Consultant

Dr. Charles Daniel has over 35 years experience as an engineer and manager in the fields of space flight vehicle design, analysis, integration and testing; he has been involved in aerospace programs from Saturn V to the International Space Station. In 1968, he began his career at Marshall Space Flight Center where he supported Saturn Instrument Unit operations for Apollo 11, 12, and 13. In 1971, he performed avionics integration work for the Skylab program and spent the next decade developing avionics for the solid rocket boosters. He was SRB flight operations lead in that activity.

Daniel worked as part of the original Space Station Skunk Works for definition of the initial space station concept and developed the Master engineering schedule for the station.

Following the Challenger accident, he led the evaluation of all Hazards Analyses associated with Shuttle and coordinated acceptance analyses associated with the modifications to the SRMs and SRBs. During Space Station Freedom development, he was the avionics lead and served as MSFC lead for Level II assembly and configuration development. Dr. Daniel was part of the initial group to define the concept for Russian participation in the Space Station Restructure activity and later returned to MSFC as Chief Engineer for Space Station.

Daniel holds a Doctorate degree in Engineering and has completed postgraduate work at the University of California, Berkeley and MIT. He was a member of the NAC Task Force on Shuttle-Mir Rendezvous and Docking Operations and is a member of the NASA Advisory Council Task Force, ISS Operational Readiness.

Richard Danzig, J.D., Ph.D.:

A Director of National Semiconductor Corporation, Human Genome Sciences, and Saffron Hill Ventures

Dr. Richard Danzig, former Under Secretary of the Navy (1993-1997) and Secretary of the Navy (1998-2001), has vast and varied expertise in law, business, military and government operations, as well as national service. He is currently a Director of the National Semiconductor Corporation and a Director of Human Genome Sciences. He also serves as a consultant to the Department of Defense and other federal agencies regarding response to terrorism and is Chairman of the Board of the Center for Strategic and Budgetary Assessment.

Danzig holds a J.D. degree from Yale Law School and Bachelor and Doctorate of Philosophy degrees from Oxford University, where he was a Rhodes Scholar. He served as a law clerk for U.S. Supreme Court Justice Byron White. In the 1970s, he was an Associate Professor of Law at Stanford University, a Prize Fellow at Harvard and a Rockefeller Foundation Fellow. He later served as a Deputy Assistant Secretary of Defense in the Office of the Secretary of Defense and then as the Principal Deputy Assistant Secretary of Defense for Manpower, Reserve Affairs, and Logistics. Between 1981 and 1993, he was a partner in the law firm of Latham and Watkins, co-authored a book on national service, and taught a law class at Georgetown University Law School. He has written a book, *Joseph's Way*, on innovation in large organizations, which will be published in 2004.

During his distinguished public career at DOD, Danzig received the Defense Distinguished Public Service Award, the highest Department of Defense civilian award, three times. He is a Member of the NASA Advisory Council.

Dr. Amy K. Donahue:

Dr. Amy K. Donahue is Assistant Professor of Public Administration at the University of Connecticut Institute of Public Affairs.

She teaches graduate courses in public organizations and management, policy analysis, intergovernmental relations, and research methods. Donahue's research focuses on the productivity of emergency services organizations and on the nature of citizen demand for public safety services. She is author of published work about the design, management, and finance of fire departments and other public agencies. Donahue serves as a consultant for local governments seeking to improve the structure and management of their fire and emergency services.

Under the Intergovernmental Personnel Act, Donahue serves as Senior Advisor to the NASA Administrator for Homeland Security. She functions as NASA's liaison with the Department of Homeland Security and the Homeland Security Council. She also works within NASA to discern opportunities to contribute to homeland security efforts government-wide, including evaluating existing projects and identifying new opportunities for interagency collaboration targeted at homeland security. She recently spent three months in the field in Texas managing the Columbia recovery operation.

Previously, Donahue was a senior research associate at the Alan K. Campbell Public Affairs Institute at Syracuse University. She conducted research and analysis in support of the Government Performance Project, a five-year initiative funded by the Pew Charitable Trusts to evaluate comprehensively performance of federal, state, and local government management systems. She developed conceptual models and evaluation criteria, designed written survey instruments for administration to governments and agencies, and conducted data analysis.

Donahue has 20 years of field experience and training in an array of emergency services-related fields, including managing a 911 communications center, and working as a firefighter and emergency medical technician in Fairbanks, Ala., and upstate New York.

As an officer in the U.S. Army Medical Service Corps, she spent four years on active duty in the 6th Infantry Division, where her positions included Main Support Battalion Training and Operations Officer, Officer-in-Charge of the division's Forward Surgical Team, and Chief of Mobilization, Education, Training and Security at Bassett Army Hospital.

Donahue holds her Ph.D. in Public Administration and her M.P.A. from the Maxwell School of Citizenship and Public Affairs at Syracuse University, and her B.A. in Geological and Geophysical Sciences from Princeton University.

She has been honored with the National Association of Schools of Public Affairs and Administration Dissertation Award, the Syracuse University Doctoral Prize, the Jon Ben Snow Graduate Fellowship in Nonprofit Management at Syracuse University, the Arthur F. Buddington Award for Excellence in the Earth Sciences

at Princeton University, and several military awards, including the Meritorious Service Medal, three Army Commendation Medals, the Expert Field Medical Badge, Air Assault Badge, and Basic Military Parachutist Badge.

General Ron Fogleman, USAF (Ret.):

President and Chief Operating Officer of Durango Aerospace Incorporated

General Fogleman has vast experience in air and space operations, expertise in long-range programming and strategic planning, and extensive training in fighter and mobility aircraft. He served in the USAF for 34 years, culminating in his appointment as Chief of Staff, until his retirement in 1997. Fogleman has served as a military advisor to the Secretary of Defense, the National Security Council and the President.

Among other advisory boards, he is a member of the National Defense Policy Board, the NASA Advisory Council, the Jet Propulsion Laboratory Advisory Board, the Council on Foreign Relations, and the congressionally directed Commission to Assess United States National Security Space Management and Organization. He is chairing a National Research Council Committee on Aeronautics Research and Technology for Vision 2050: An Integrated Transportation System.

Fogleman received a Master's Degree in Military History from the U.S. Air Force Academy, a Master's Degree in Political Science from Duke University, and graduated from the Army War College. He has been awarded several military decorations including: Defense Distinguished Service Medal with two oak leaf clusters; the Air Force Distinguished Service Medal with oak leaf cluster; both the Army and Navy Distinguished Service Medals; Silver Star; Purple Heart; Meritorious Service Medal; and two Distinguished Flying Crosses.

Col. Gary S. Geyer, USAF (Ret.):

Consultant

Colonel Geyer has 35 years of experience in space engineering and program management, primarily in senior positions in the government and industry that emphasize management and system engineering. He has been responsible for all aspects of systems' success, including schedule, cost, and technical performance.

He served for 26 years with the National Reconnaissance Office (NRO) and was the NRO System Program Office Director for two major programs, which encompassed the design, manufacture, test, launch, and operation of several of our nation's most important reconnaissance satellites. Geyer received the NRO Pioneer Award 2000 for his contributions as one of 46 pioneers of the NRO responsible for our Nation's information superiority that significantly contributed to the end of the cold war.

Following his career at the NRO, Geyer was Vice President for a major classified program at Lockheed Martin and responsible for all aspects of program and mission success. His other assignments have included Chief Engineer for another nationally vital classified program and Deputy for Analysis for the Titan IV program. Geyer is teaching a Space Design course and a System Engineering/ Program Management course at New Mexico State University in Las Cruces, N.M. He has a Bachelor of Science degree in Electrical Engineering from Ohio State University, and a Master's in Electrical Engineering and Aeronautical Engineering from the University of Southern California.

Maj. Gen. Ralph H. Jacobson, USAF (Ret.):
Consultant

During General Jacobson's 47 years of distinguished military and civilian service, he has developed an expertise in aerospace program management, satellite operations, business, and budget management. He graduated from the U.S. Naval Academy in 1956, earned his pilot's wings in 1957, received a Master's Degree in Astronautics from the Air Force Institute of Technology in 1962, and a Master's Degree in Business Administration from The George Washington University in 1966.

His early USAF assignments included tours as: a tactical airlift pilot, including a one-year assignment in Vietnam; the project officer for the Titan II inertial guidance system; and an action officer on the Air Staff in the Pentagon. Beginning in 1970, he held a series of assignments in the nation's space program, which included several technical program management responsibilities and command responsibility for satellite operations.

As a Brig. Gen., he was assigned to the Space Shuttle Program Office at NASA Headquarters and later became the Air Staff Officer responsible for budget development for the Air Force Space Program. In 1983 he became Director of Special Projects, Office of the Secretary of the Air Force, from which he retired in 1987. His military decorations include the Defense, National Intelligence Community, and Air Force Distinguished Service medals and the Distinguished Flying Cross. After his military retirement, Jacobson became President and Chief Executive Officer of The Charles Stark Draper Laboratory where he served in that capacity until 1997.

He is a member of many advisory groups and boards, including the Strategic Advisory Group, U.S. Strategic Command, Sandia National Security Advisory Panel, Space Studies Board of the National Research Council, and is a Trustee, United States Naval Academy Foundation. Jacobson is a fellow of the American Institute of Aeronautics and Astronautics as well as a Member of the NASA Advisory Council Task Force on ISS Operational Readiness and a former member of the NAC Task Force on Shuttle-Mir Operational Readiness.

Mr. Richard Kohrs:
Chief Engineer, Kistler Aerospace Corporation

Richard Kohrs has over 40 years of experience in aerospace systems engineering, stress analysis, and integration. He has held senior management positions in major NASA programs from Apollo to the Space Station.

As a member of the Apollo Spacecraft Program's Systems Engineering and Integration Office, he developed the Spacecraft Operations Data Book system that documented systems and subsystem performance, and was the control database for developing flight rules, crew procedures, and overall performance of the Apollo Spacecraft.

After Apollo, he became Manager of System Integration for the Space Shuttle Program; Deputy Manager, Space Shuttle Program; and then Deputy Director of the Space Shuttle Program at Johnson Space Center. As Deputy Director, he was responsible for the daily engineering, processing, and operations activities of the Shuttle program and he developed an extensive background in Shuttle systems integration. In 1989, he became the Director of Space Station Freedom, with overall responsibility for its development and operation.

After years of public service, he left NASA to become the Director of the ANSER Center for International Aerospace Cooperation (1994-1997). Kohrs joined Kistler Aerospace in 1997 as Chief Engineer. His primary responsibilities include vehicle integration, design specifications, design data books, interface control, vehicle weight, performance, and engineering review board matters. He received a Bachelor of Science degree from Washington University, St. Louis, in 1956.

Susan Morrissey Livingstone:

Susan Livingstone has served her nation for more than 30 years in both government and civic roles. From July 2001 to February 2003, she served as Under Secretary of the Navy. As "COO" to the Secretary of the Navy, she had a broad executive management portfolio (e.g., programming, planning, budgeting, business processes, organizational alignment), but also focused on Naval space, information technology and intelligence/compartimented programs; integration of Navy-Marine Corps capabilities; audit, IG and criminal investigative programs; and civilian personnel programs.

Livingstone is a policy and management consultant and also serves as a member of the National Security Studies Board of Advisors (Maxwell School, Syracuse University), is again a board member of the Procurement Round Table and was appointed to NASA's Return-to-Flight Task Group for safe return of Shuttle flight operations.

Prior to serving as Under Secretary of the Navy, Livingstone was CEO of the

Association of the United States Army and deputy chairman of its Council of Trustees. She also served as a vice president and board member of the Procurement Round Table, and as a consultant and panel chairman to the Defense Science Board (on "logistics transformation").

From 1993 to 1998, Livingstone served the American Red Cross HQ as Vice President of Health and Safety Services, Acting Senior Vice President for Chapter Services and as a consultant for Armed Forces Emergency Services.

As Assistant Secretary of the Army for Installations, Logistics and Environment from 1989 to 1993, she was responsible for a wide range of programs including military construction, installation management, Army logistics programs, base realignment and closures, energy and environmental issues, domestic disaster relief and restoration of public infrastructure to the people of Kuwait following operation Desert Storm. She also was decision and acquisition management authority for the DoD chemical warfare materiel destruction program.

From 1981 to 1989, Livingstone served at the Veterans Administration in a number of positions including Associate Deputy Administrator for Logistics and Associate Deputy Administrator for Management. She served as the VA's Senior Acquisition Official and also directed and managed the nation's largest medical construction program. Prior to her Executive Branch service, she worked for more than nine years in the Legislative branch on the personal staffs of both a Senator and two congressmen.

Livingstone graduated from the College of William and Mary in 1968 with an A.B. degree and completed an M.A. in political science at the University of Montana in 1972. She also spent two years in postgraduate studies at Tufts University and the Fletcher School of Law and Diplomacy.

Livingstone has received numerous awards for her community and national service, including the highest civilian awards from the NRO, VA, and the Departments of the Army and Navy. She is also is a recipient of the Secretary of Defense Award for Outstanding Public Service.

Mr. James D. Lloyd:
Deputy Associate Administrator for Safety and Mission Assurance, NASA

James Lloyd has extensive experience in safety engineering and risk management, and has supported a number of Blue Ribbon panels relating to mishaps and safety problems throughout his career. He began his career after an intern-training period as a system safety engineer with the U. S. Army Aviation Systems Command in St. Louis.

He transferred to its parent headquarters, the Army Materiel Command (AMC) in 1973 and, after serving several safety engineering roles was appointed as the

Chief of the Program Evaluation Division in the Command's Safety Office, where he assured the adequacy of safety programs for AMC organizations.

In 1979, he continued his career as a civilian engineer with the AMC Field Safety Activity in Charlestown, IN, where he directed worldwide safety engineering, evaluation and training support. In 1987, a year after the Shuttle Challenger disaster, Lloyd transferred from the U. S. Army to NASA to help the agency rebuild its safety mission assurance program. He was instrumental in fulfilling several of the recommendations issued by the Rogers' Commission, which had investigated the Challenger mishap. After the Shuttle returned to flight with the mission of STS-26, Lloyd moved to the Space Station Freedom Program Office in Reston, Va., where he served in various roles culminating in being appointed as the Program's Product Assurance Manager.

In 1993, he became Director, Safety and Risk Management Division in the Office of Safety and Mission Assurance, serving as NASA's "Safety Director" and was appointed to his present position in early 2003. He serves also as an ex officio member of the NAC Task Force on ISS Operational Readiness.

Lloyd holds a Bachelor of Science degree in Mechanical Engineering, with honors, from Union College, Schenectady, N.Y., and a Master of Engineering degree in Industrial Engineering from Texas A&M University, College Station.

Lt. General Forrest S. McCartney, USAF (Ret.):
Vice Chairman of the Aerospace Safety Advisory Panel

During General McCartney's distinguished USAF career, he held the position of Program Director for several major satellite programs, was Commander of the Ballistic Missile Organization (responsible for Minuteman and Peacekeeper development), Commander of Air Force Space Division and Vice Commander, Air Force Space Command.

His military decorations and awards include the Distinguished Service Medal, Legion of Merit with one oak leaf cluster, Meritorious Service Medal and Air Force Commendation Medal with three oak leaf clusters. He was recipient of the General Thomas D. White Space Trophy in 1984 and the 1987 Military Astronautical Trophy.

Following the Challenger accident in late 1986, McCartney was assigned by the USAF to NASA and served as the Director of Kennedy Space Center until 1992. He received numerous awards, including NASA's Distinguished Service Medal and Presidential Rank Award, the National Space Club Goddard Memorial Trophy, AIAA Von Braun Award for Excellence in Space Program Management.

After 40 years of military and civil service, McCartney became a consultant to industry, specializing in the evaluation of hardware failure/flight readiness. In 1994, he joined Lockheed Martin as the Astronautics Vice President for Launch Operations. He retired from Lockheed Martin in 2001 and is currently the Vice Chairman of the NASA Aerospace Safety Advisory Panel.

McCartney has a bachelor's degree in Electrical Engineering from Auburn University, master's degree in Nuclear Engineering from the USAF Institute of Technology, and an honorary doctorate from the Florida Institute of Technology.

Rosemary O'Leary J.D., Ph.D:

Rosemary O'Leary is professor of public administration and political science, and coordinator of the Ph.D. program in public administration at the Maxwell School of Citizenship and Public Affairs at Syracuse University. An elected member of the U.S. National Academy of Public Administration, she was recently a senior Fulbright scholar conducting research on environmental policy in Malaysia.

Previously O'Leary was professor of public and environmental affairs at Indiana University and cofounder and co director of the Indiana Conflict Resolution Institute. She has served as the director of policy and planning for a state environmental agency and has worked as an environmental attorney.

She has worked as a consultant to the U.S. Department of the Interior, the U.S. Environmental Protection Agency, the Indiana Department of Environmental Management, the International City/County Management Association, the National Science Foundation, and the National Academy of Sciences.

O'Leary is the author or editor of five books and more than 75 articles on environmental management, environmental policy, public management, dispute resolution, bureaucratic politics, and law and public policy. She has won seven national research awards, including Best Book in Public and Nonprofit Management for 2000 (given by the Academy of Management), Best Book in Environmental Management and Policy for 1999 (given by the American Society for Public Administration), and the Mosher Award, which she won twice, for best article by an academician published in *Public Administration Review*.

O'Leary was recently awarded the Syracuse University Chancellor's Citation for Exceptional Academic Achievement, the highest research award at the university. She has won eight teaching awards as well, including the national Excellence in Teaching Award given by the National Association of Schools of Public Affairs and Administration, and she was the recipient of the Distinguished Service Award given by the American Society for Public Administration's Section on Environment and Natural Resources Administration. O'Leary has served as chair of the Public Administration Section of the American Political Science

Association, and as the chair of the Section on Environment and Natural Resources Administration of the American Society for Public Administration.

Mr. David Raspet:
Engineering Consultant

David Raspet is an expert in national security space architectures, payloads, avionics, space electrical power development, and integration, in addition to his experiences as a manager in a wide variety of military and commercial programs. He is currently a consultant to the USAF EELV Program Office, where he assists in defining the mission assurance program and develops enhanced program management methods. In 2002, he was responsible for the independent review of Titan IVB-30 readiness and the spacecraft/launch vehicle integration.

Prior public and private sector experience includes: Future Imaging Architecture Space Segment IPT Lead - Boeing; FIA Mission Payload IPT Lead, Low Altitude Demonstration System Program Director, Delta IV Program Director, Director of Flight Systems – McDonnell Douglas; Vice Director, Secretary of the Air Force Special Projects – Air Force; Deputy Director, Launch and Support Operations – Air Force.

Raspet received his Bachelor of Science degree in Physics from Mississippi State University and his Master's degree in Electro-Optical Engineering Physics from the Air Force Institute of Technology.

Dr. Decatur B. Rogers, P.E.,
Dean Tennessee State University College of Engineering, Technology and Computer Science

Since 1988, Dr. Rogers has served as the Dean, College of Engineering, Technology and Computer Science and Professor of Mechanical Engineering at Tennessee State University in Nashville, Tenn. Rogers served in professorship and dean positions at Florida State University, Tallahassee, Fla., Prairie View A&M University, Prairie View, Texas, and Federal City College, Washington.

Rogers holds a Ph.D in Mechanical Engineering from Vanderbilt University; masters' in Engineering Management and Mechanical Engineering from Vanderbilt University; and a bachelor's in Mechanical Engineering from Tennessee State University.

Mr. Sy Rubenstein:
Aerospace Consultant

Sy Rubenstein was a major contributor to the design, development and operation of the Space Shuttle and has been involved in commercial and government projects for more than 35 years. As an employee of Rockwell International, the

prime contractor for the Shuttle, he was the Director of System Engineering, Chief Engineer, Program Manager and Division President during twenty years of space programs.

He has received the NASA Public Service Medal, the NASA Medal for Exceptional Engineering and the AIAA Space Systems Award for his contributions to manned space development. Rubenstein, a leader, innovator and problem solver, is a fellow of the AIAA and the AAS.

Mr. Robert Sieck:
Aerospace Consultant

Robert Sieck, the former Director of Shuttle Processing at the Kennedy Space Center (KSC), has an extensive background in Shuttle systems, testing, launch, landing and processing. He joined NASA in 1964 as a Gemini Spacecraft Systems engineer and then served as an Apollo Spacecraft test team project engineer. He later became the Shuttle Orbiter test team project engineer, and in 1976 was named the Engineering Manager for the Shuttle Approach and Landing Tests at Dryden Flight Research Facility in California. He was the Chief Shuttle Project Engineer for STS-1 through STS-7 and became the first KSC Shuttle Flow Director in 1983. He was appointed Director, Launch and Landing Operations in 1984, where he served as Shuttle Launch Director for 11 missions.

He served as Deputy Director of Shuttle Operations from 1992 until January 1995 and was responsible for assisting with the management and technical direction of the Shuttle program at KSC. He also retained his position as Shuttle Launch Director, a responsibility he had held from February 1984 through August 1985, and then from December 1986 to January 1995. He was Launch Director for STS-26R and all subsequent Shuttle missions through STS-63. Sieck served as Launch Director for 52 Space Shuttle launches.

He earned his Bachelor of Science degree in Electrical Engineering at the University of Virginia in 1960 and obtained additional postgraduate credits in mathematics, physics, meteorology, and management at both Texas A&M and the Florida Institute of Technology. He has received numerous NASA and industry commendations, including the NASA Exceptional Service Medal and the NASA Distinguished Service Medal. Sieck joined the Aerospace Safety Advisory Panel as a consultant in March 1999.

Lt. General Thomas Stafford, USAF (Ret.):
Co-Chair, Return to Flight Task Group
President, Stafford, Burke & Hecker Inc., technical consulting

General Stafford, an honors graduate of the U.S. Naval Academy, joined the space program in 1962 and flew four missions during the Gemini and Apollo programs. He piloted Gemini 6 and Gemini 9, and traveled to the moon as

Commander of Apollo 10. He was assigned as head of the astronaut group in June 1969, responsible for the selection of flight crews for projects Apollo and Skylab.

In 1971, Stafford was assigned as Deputy Director of Flight Crew Operations at the NASA Manned Spaceflight Center. His last mission, the Apollo-Soyuz Test Project in 1975, achieved the first rendezvous between American and Soviet spacecrafts.

He left NASA in 1975 to head the Air Force Test Flight Center at Edwards Air Force Base and in 1978 assumed duties as Deputy Chief of Staff, Research Development and Acquisition, USAF Headquarters in Washington. He retired from government service in 1979 and became an aerospace consultant.

Stafford has served as Defense Advisor to former President Ronald Reagan; and headed The Synthesis Group, which was tasked with plotting the U. S. return to the moon and eventual journey to Mars.

Throughout his careers in the Air Force and NASA space program, he has received many awards and medals including the Congressional Space Medal of Honor in 1993. He served on the National Research Council's Aeronautics and Space Engineering Board, the Committee on NASA Scientific and Technological Program Reviews, and the Space Policy Advisory Council. He was Chairman of the NASA Advisory Council Task Force on Shuttle-Mir Rendezvous and Docking Missions. He is currently the Chairman of the NASA Advisory Council Task Force on International Space Station Operational Readiness.

Tom Tate:

Tom Tate was vice president of legislative affairs for the Aerospace Industries Association (AIA), the trade association representing the nation's manufacturers of commercial, military and business aircraft, helicopters, aircraft engines, missiles, spacecraft, and related components and equipment. Joining AIA in 1988, Tate directs the activities of the association's Office of Legislative Affairs, which monitors policy issues affecting the industry and prepares testimony that communicates industry's viewpoint to Congress.

Before joining AIA, Tate served on the staff of the House of Representative's Committee on Science and Technology for 14 years. Joining the staff in 1973 as a technical consultant and counsel to the House Subcommittee on Space Science and Applications, he was appointed deputy staff director of the House Subcommittee on Energy Research and Development in 1976. In 1978, Tate returned to the space subcommittee as chief counsel, and in 1981 he became special assistant to the chairman of the committee until joining AIA.

Tate worked for the Space Division of Rockwell International in Downey, Calif., from 1962 to 1973 in various engineering and marketing capacities and was director of space operations when he departed the company in 1973. He worked on numerous programs, including the Gemini Paraglider, Apollo, Apollo/Soyuz, and Shuttle Programs.

Tate worked for RCA's Missile and Surface Radar Division in Moorestown, N.J. from 1958 to 1962 in the project office of the Ballistic Missile Early Warning System (BMEWS) program being built for the USAF. From 1957 to 1958, Tate served in the Army as an artillery and guided missile officer at Fort Bliss, Texas.

Tate received a bachelor's degree in marketing from the University of Scranton in 1956 and a law degree from Western State University College of Law in Fullerton, Calif., in 1970. In his final year of law school, his fellow students awarded him the Gold Book Award as the most outstanding student. In 1991, he received the Frank J. O'Hara award for distinguished alumni in science and technology from the University of Scranton.

Tate is a member of numerous aerospace and defense associations including the American Institute of Aeronautics and Astronautics, the National Space Club, and the National Space Institute, where he serves as an advisor. He also served as a permanent civilian member of the National Aeronautics and Space Administration Senior Executive Service Salary and Performance Review Board.

William Wegner:
Consultant

Wegner graduated from the U.S. Naval Academy in 1948. He subsequently received masters' degrees in Naval Architecture and Marine Engineering from Webb Institute in New York. In 1956 he was selected by Admiral Hyman Rickover to join the Navy's nuclear program and was sent to MIT, where he received his master's degree in Nuclear Engineering. After serving in a number of field positions, including that of Nuclear Power Superintendent at the Puget Sound Naval Shipyard, he returned to Washington. He served as deputy director to Admiral Rickover in the Naval Nuclear Program for 16 years and was awarded the DOD Distinguished Service Award and the Atomic Energy Commission's distinguished service award.

In 1979, he retired from government service, and formed Basic Energy Technology Associates with three fellow naval retirees. During its 10 successful years of operation, it provided technical services to over 25 nuclear utilities and other nuclear-related activities. He has served on a number of panels including the National Academy of Sciences that studied the safety of Department of Energy nuclear reactors. From 1989 to 1992, he provided technical assistance to the Secretary of Energy on nuclear-related matters. He has provided technical

services to over 50 nuclear facilities. Wegner served as a Director of the Board of Directors of Detroit Edison from 1990 until retiring in 1999.

Mr. David Lengyel:
Executive Secretary, Return to Flight Task Group

Since February 2003, Lengyel has served on the administrative staff of the Columbia Accident Investigation Board (CAIB). Prior to this he was Executive Director of the Aerospace Safety Advisory Panel for almost two years.

From 1999 through 2000, Lengyel served a tour of duty as the Manager of the Moscow Technical Liaison Office (MTLO) for the International Space Station Program in Russia. The MTLO interfaces with Russian contractors and space agency personnel to monitor and track the progress of Russian Segment elements, Soyuz/Progress vehicles as well as provide technical liaison between U.S. and Russian engineering/mission integration personnel.

Lengyel joined NASA in October 1993 as the third Executive Officer to Administrator Daniel S. Goldin. He served in several program operations and payloads capacities within the ISS and Shuttle-Mir Programs at the Johnson Space Center from 1994 to 1998. He led an analytical assessment of Shuttle-Mir lessons learned for application to the ISS.

Prior to joining NASA, Lengyel was a senior aircrew-training instructor for McDonnell-Douglas in St. Louis. He conducted pilot training for the FA-18 Hornet and F-15 Eagle for both foreign and domestic customers.

He is a Lieutenant Colonel in the Marine Corps Reserves and has accumulated over 2000 hours flight time in the F-4S Phantom II, OV-10 Bronco, and FA-18 Hornet.

Lengyel holds a Bachelor of Science degree from the U.S. Naval Academy, an MBA from the University of Missouri, and an MA in International Affairs from Washington University in St. Louis.

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