COL, USAF (ret.) - US citizen,

Professional Experience

Feb 2017 – present, owner and CEO, Melroy & Hollett Technology Partners

• Consultant on air and space technology and policy

Feb 2018 – present, Director of Space Technology and Policy, Nova Systems Pty Australia

- · Consultant on space technology and policy in emerging Australian civil, security, and commercial space sector
- Stood up a consortium of resources and aerospace companies to promote the cross-flow of technology from space to mining/oil and gas remote asset management capabilities

Jan 2013 – Feb 2017 Deputy Director, Tactical Technology Office, Defense Advanced Research Projects Agency (DARPA)

- Responsible for daily operations of >\$500M/year high-risk, high-payoff disruptive advanced research and development projects spanning space, air, ground, and maritime domains including X-planes and space platforms
- High-profile unclassified technology transitions include Space Surveillance Telescope, Long-Range Anti-Ship Missile, and Anti-Submarine warfare Continuous Track Unmanned Vessel (ACTUV Sea-Hunter)
- Part of core senior leadership team directing DARPA's technology investment strategy and building intergovernmental partnerships particularly in national security space programs

April 2011 – January 2013

Acting Deputy Associate Administrator, Director of Field Operations and Senior Technical Advisor FAA Office of Commercial Space Transportation

- As acting Deputy Associate Administrator, responsible for oversight of commercial spaceflight licensed and permitted activities to include NASA's Commercial Resupply Services and Commercial Crew programs
- Helped develop the National Space Transportation Policy as representative of Department of Transportation
- Led development of first-ever guidelines for commercial human spaceflight safety

August 2009 - Feb 2011

Director/Deputy Program Manager, Space Exploration Initiatives, Crew Exploration Vehicle Lockheed Martin

- Oversight of \$400+M contract and 320+ engineers designing Orion, NASA's lunar-capable human spacecraft
- Responsible for finance, contracting, human resources, earned value and risk management rapid, successful transition to corporate environment demonstrated flexibility and leadership skills

March 1995 - August 2009

Astronaut, Johnson Space Center, National Aeronautics and Space Administration

Flew three Space Shuttle missions as Pilot and Commander. Concurrent duties/special assignments between flights.

Commander, STS-120

- Commander of mission to the International Space Station (ISS) one of two women to command the Space Shuttle
- Leadership responsibility for 200+ people in schedule, training and performance
- Led STS-120 team to successful mission, including emergency spacewalk to repair torn solar array which threatened the ISS

Pilot, STS-112

- · Pilot and second-in-command on highly successful multi-national assembly mission to the ISS
- As spacewalk coordinator, directed and managed activities for three challenging spacewalks

Pilot, STS-92

- · Pilot and second-in-command on highly successful multi-national assembly mission to the ISS
- First-ever operator of the primary mechanism to attach new elements to the Space Station
- Early promotion to the rank of Lt Colonel

Special Assignments

Branch Chief, Astronaut Office, liaison to Orion Crew Exploration Vehicle Program

• Principle representative of Flight Crew Operations Directorate to all program-level control boards

Deputy Project Manager, Columbia Crew Survival Investigation

- Ground-breaking investigation uncovered major implications for future spaceflight, public and private
- Co-author of the only public report on crew survival in a space mishap

Lead, Columbia Crew Module Reconstruction

• Responsible for all activities related to reconstruction of the Columbia Crew Module after mishap

Lead, Astronaut Public and Media Appearances

• Supervised activities of 13 personnel supporting over 2000 astronaut appearances requests annually

United States Air Force pilot, test pilot

C-17 Test Pilot, Student Test Pilot, Edwards AFB, CA,

- Developmental test pilot for C-17; specialty in air refueling, structures, and all-weather testing
- Early promotion to rank of Major
- Set 10 world aviation records; developed and flew first-ever C-17 air show demonstration

KC-10 Pilot, Aircraft Commander/Instructor Pilot, Barksdale AFB LA

- Logged over 2300 hours as a pilot, aircraft commander, and instructor pilot in the KC-10
- Flew over 200 combat and combat support hours during DESERT SHIELD/DESERT STORM and JUST CAUSE
- Senior instructor for KC-10 Combat Crew Training training all new pilots

Education

Massachusetts Institute of Technology, MS in Earth & Planetary Sciences Wellesley College, cum laude, BA in Physics and Astronomy

Professional Affiliations

Associate Fellow, American Institute of Aeronautics and Astronautics Associate Fellow, Society of Experimental Test Pilots Member, National Academy of Engineering Member, Association of Space Explorers

Other Public Service

National Space Council User Advisory Group – chair, Technology and Innovation Subcommittee Australian Space Agency Advisory Group – member National Academies of Science, Engineering and Medicine – Aeronautics and Space Engineering Board, vice-chair National Academies of Science, Engineering and Medicine – member, Space Technology Industry Government and University (STIGUR) Roundtable (2017 – 2019)

Honors and Awards

NASA Distinguished Service Medal – highest award given NASA Outstanding Leadership Medal Secretary of Defense Medal for Outstanding Public Service AIAA Public Service Award Flight Achievement Award, American Astronautical Society Wellesley College Alumnae Achievement Award USAF Air Medal, 1st Oak Leaf Cluster

Board Service

Aerospace Corporation – Board of Directors Anthrotronix Corporation – Board of Directors Myriota Pty Ltd – Board of Directors Systems Planning and Analysis – Board of Directors Australian Remote Operations for Space and Earth (AROSE) consortium – Board of Directors Massachusetts Institute of Technology Visiting Committee, Aeronautics and Astronautics Wellesley College Board of Trustees, 2005 – 2017 Air Force Museum Foundation Board of Managers, Dayton OH - 2010 – 2014 Manned Spaceflight Education Foundation Board of Directors 2011 – 2015