Ever Upward: July 2024

2024-2025 Award Winners of the Aerospace Medical Association

Honors Night Ceremonies of the 94th Annual Scientific Meeting of the Aerospace Medical Association were held May 9, 2024, at the Hyatt Regency Chicago, Chicago, IL. Presented were 21 awards for outstanding contributions in aerospace medicine and human performance (the Clark, Award was not presented). The presentations were made by Dr. Joseph Dervay, President of the Aerospace Medical Association, assisted by the chair of the Awards Committee, Eric Olins, M.D. The winners were recommended by the Awards Committee and approved by the Executive Committee of the Aerospace Medical Association.

LOUIS H. BAUER FOUNDERS AWARD
Serena Auñón-Chancellor, M.D., MPH, FACP

This award was established to honor Louis H. Bauer, M.D., founder of the Aerospace Medical Association. It is given annually for the most significant contribution in aerospace medicine. It is sponsored by the Mayo Clinic.

Serena Aunon-Chancellor, M.D., MPH, FACP, is the 2024 recipient of the Louis H. Bauer Founders Award for her commitment to Aerospace Medicine as a medical practitioner, an educator, an astronaut, and a strategic thinker. Over the past 20 years, she has played key roles, including as a University of Texas Medical Branch (UTMB) Aerospace Medicine Resident, a NASA Flight Surgeon supporting both shuttle and International Space Station (ISS) crew with extensive time served in Russia, a NASA astronaut who spent 197 days aboard ISS in 2018, academic faculty at the UTMB, and especially as Residency Program Director. While she was on the ISS, she and her crew completed over 150 different experiments in multiple fields, including biology and biotechnology, cancer, Parkinson's, and Alzheimer's research, materials science, nuclear physics, physical sciences, and Earth science. Additionally, she has participated in multiple outreach events to students in grade school and universities all over the world. Her pivotal accomplishments include development of a Master of Science in Aerospace Medicine (development from 2022-2023, inaugural class in 2023); development of a new 4-year combined Emergency Medicine/Aerospace Medicine Residency at UTMB (inaugural class in 2024); and development (underway) of a consortium in Aerospace Medicine between four academic institutions (official letters of intent signed in 2023), with ongoing effort for formalization in 2024. She has spent countless hours behind the scenes liaising with academia, boards, and the private industry to grow this field.

Dr. Auñón-Chancellor came to the Johnson Space Center in 2006 as a Flight Surgeon under the UTMB/Wyle Bioastronautics contract. She spent more than 9 months in Russia supporting medical operations for International Space Station (ISS) crewmembers in Star City, including water survival training in the Ukraine. She served as Deputy Crew Surgeon for the Shuttle mission STS-127 and has also held the role of Deputy Lead for Orion Medical Operations.

Dr. Auñón-Chancellor was selected in July 2009 as one of 14 members of the 20th NASA astronaut class. During her training period, she completed multiple scientific and technical briefings, intensive instruction in space station systems, spacewalks, robotics, physiological training, and over 500 hours in the T-38 training jet. She has served in the ISS Station Operations branch handing medical issues and the Capsule Communicator (CapCom) branch as a lead CapCom for multiple Commercial Cargo resupply missions. In January of 2017, she began an international training regimen for launch on the Soyuz MS-09 spacecraft from Kazakhstan for a 6-month trip to the ISS. Her crew launched from the Baikonur Cosmodrome on June 6, 2018, and landed on December 20th, 2018, spending 197 days on orbit. During her time on both Expedition 56 and 57, her crew completed over 150 different experiments in multiple fields. They also completed successful robotic capture operations for four visiting commercial vehicles bringing critical cargo to the ISS where Dr. Auñón-Chancellor was the lead. She performed multiple outreach events to students in grade school and universities all over the world during her time on orbit, inspiring the next generations of scientists, physicians, engineers, and explorers.

In addition to being board certified in internal medicine, Dr. Auñón-Chancellor is also board certified in aerospace medicine and considered an expert in extreme medicine as she has practiced in almost every environment both on and off the planet. This includes a 42-day stay living 200 miles from the South Pole on the Antarctic ice, under the sea in the Aquarius Habitat, and 240 miles above the Earth's surface on the ISS. During her time in the astronaut office, she has collaborated and consulted with multiple international space agencies as well as commercial companies such as SpaceX and Boeing regarding medical issues impacting our return to the Moon and eventual missions to Mars. She has given keynote addresses and lectures at multiple universities both across the country and internationally as well as government agencies, including the White House.

Dr. Auñón-Chancellor currently serves as an Associate Professor of Clinical Medicine for the LSU Internal Medicine Residency Program in Baton Rouge, LA, in partnership with Our Lady of the Lake Regional Medical Center, where she actively teaches and leads hospital teams with residents and medical students. In addition to this, she is the current UTMB Aerospace Medicine Residency Program Director. Finally, she maintains an active role in the Astronaut Office, where she covers medical issues and provides guidance for ISS, Lunar, and Exploration-Class missions. Her research interests include thrombosis in microgravity, space radiation and its clinical effects on humans, and the major medical challenges facing astronauts during exploration class missions.

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Admiral John C. Adams Award

Roy A. Hoffman, M.Sc., M.D., MPH

This award was established by the Society of U.S. Naval Flight Surgeons in honor of Admiral John C. Adams. The award is given annually for the most significant contributions to operational Aerospace Medicine, either during a single defined period (e.g., deployment), or over a career.

Roy A. Hoffman, M.Sc., M.D., MPH, CDR, USN, is the 2024 recipient of the Admiral John C. Adams Award for exceptional service and personal initiative as an operational Aerospace Medicine Specialist and Flight Surgeon. He was the driving force shaping the modern Naval Flight Surgeon tenets and regimen. His 20-plus years of service delivered a new residency teaching curriculum, revised and modernized Naval Air Training and Operating Procedures Standardization manual chapters, a complete Manual of the Medical Department, Aerospace Medicine articles update and rewrite, and course corrected the physiological episodes initiatives. These are monumental accomplishment for one person when realizing it had not been done in over twenty years. He spent his entire 20-plus year career championing aerospace medicine and working tirelessly to improve it both in and outside the Navy. During COVID-19, he authored the definitive aircrew evaluation guide ensuring safe return to flight. His most impactful accomplishment was serving on the Vice Chief of Naval Operations's Physiological Episodes action team. Through research and collaboration, he changed the going casual theory of decompression sickness by showing two categories of contributing factors. His efforts directly resulted in hyperbaric oxygen chambers being removed from aircraft carriers, saving millions of dollars.

Proudly hailing from New Jersey, CDR Hoffman is a 1997 graduate of Andrews University, Berrien Springs, MI. He matriculated in Loma Linda University School of Medicine, earning his Doctor in Medicine in 2002 through a Navy Health Professions Scholarship. In 2015 he completed a Masters in Public Health with highest honors from the University of West Florida. His Navy career started in 2002 with a General Surgery Internship at National Naval Medical Center Bethesda where he earned Surgery Intern of the Year. He next completed Flight Surgeon School at the Cradle of Naval Aviation, NAS Pensacola, and then joined team "Badman" of Carrier Air Wing Five in Atsugi, Japan, serving on the USS *Kitty Hawk* (CV 63). He then continued in the tail-hook community at the "Providers" of VRC-40 while also serving as Senior Regional Flight Surgeon for Norfolk, Virginia. During this tour he participated in Operation Unified Response at Port-au Prince, Haiti, and Operation Harmattan onboard *Charles de Gaulle* (R91) supporting the French Navy with en route care. Following this, he finished a successful tour as Senior Medical Officer onboard USS *John C. Stennis* (CVN 74), leading out in RIMPAC 2016 and the Pearl Harbor 75th Commemoration while rebuilding the medical department to an unprecedented 96% score on Commander Naval Air Forces, Medical Readiness Inspection. He most recently finished a tour as Branch Head, Aerospace Medicine Programs, at the U.S. Navy Bureau of Medicine and Surgery, leading Aerospace Medicine's COVID-19 response and as the Aerospace Medicine Specialist on the Vice Chief of Naval Operations' Physiological Episodes Action Team while rewriting the flight duty physical standards and procedures in the Manual of the Medical Department, Chapter 15.

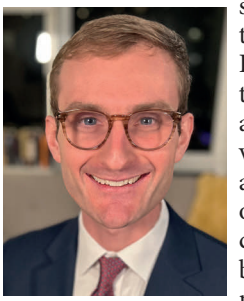
CDR Hoffman furthered his medical education by completing both a residency in Aerospace Medicine at the Naval Aerospace Medical Institute and residency in Occupational Medicine at the U.S. Army School of Aviation Medicine. During both residencies he was selected and served as chief resident and is dual board certified by the American Board of Preventive Medicine. He is currently serving as the President Emeritus of the Society of U.S. Naval Flight Surgeons. He has logged over 675 flight hours in 11 different aircraft types and performed MEDEVACs in both fixed wing and rotary aircraft. His personal awards include COMNAVAIRLANT Flight Surgeon of the Year, the Sonny Carter Memorial Award, Meritorious Service Medal (two awards), Navy and Marine Corps Commendation Medal [four awards, one for medevac off USS *Maryland* (SSBN-738)], Army Commendation Medal, and a Navy and Marine Corps Achievement Medal.

Boothby-Edwards Award

William Hoffman, M.D.

Established in memory of Walter M. Boothby, M.D., pioneer aviation medicine researcher, and Howard K. Edwards, M.D., clinical practitioner of aviation medicine, this award is presented annually for outstanding research and/or clinical practice directed at the promotion of health and prevention of disease in professional airline pilots. (The separate Boothby and Edwards Awards were given annually 1961–1973, and then alternately until 1985.) It is sponsored by Harvey W. Watt and Company.

William Hoffman, M.D., received the 2024 Boothby-Edwards award for his research and clinical contributions to the art and science of aerospace medicine related to the care of professional airline pilots. He led a multi-institution effort to study the health behavior of over 5,000 pilots across the United States and Canada, advancing the understanding of healthcare avoidance and its impact on the health of professional airline pilots. He subsequently led a large study that identified barriers airline pilots face in seeking mental healthcare and identified mitigations. He established and led a new AsMA working subgroup charged with proposing research priorities related to mental health in aviation. His work on healthcare avoidance was cited during the 2023 National Transportation Safety Board (NTSB) roundtable on mental health and guided discussions at the 2024 Federal Aviation Administration (FAA) Aviation Rule Making Committee (ARC) on mental health.



Dr. Hoffman earned a B.S. in Biology from the University of North Dakota, Grand Forks, ND, in 2015 and then his M.D. from Georgetown University School of Medicine, Washington, DC, in 2019. He then served an internship in Internal Medicine at San Antonio Uniformed Services Health Education Consortium from 2019–2020. Following that, he served a residency in Neurology, also at San Antonio Uniformed Services Health Education Consortium from 2020–2023. During that time,

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from 2022–2024, he held a Research Fellowship at the Civil Aerospace Medical Institute, Federal Aviation Administration. He also held a Clinical Fellowship, Movement Disorders and Neuromodulation, at Columbia University from 2023–2024.

Dr. Hoffman is currently Lead of the Warfighter Brain Health Team, Advanced Exposures Diagnostics, Interventions and Biosecurity Research Group, 59th Medical Wing, U.S. Air Force, and an Adjunct Assistant Professor, Department of Aviation, at the University of North Dakota. He started his career as a Cadet Wing Commander in 2014 at Detachment 610, Air Force Reserve Officer Training Corps, University of North Dakota. He served as Vice President of the Student Government at Georgetown University from 2016–2017 and then was President from 2017–2018. From 2020-2021, he was Treasurer, Resident House Staff Council, at San Antonio Uniformed Services Health Education Consortium. In 2022, he became Chief Resident, Department of Neurology, at Brooke Army Medical Center and also took his two current positions.

Dr. Hoffman is board certified in Neurology and is an Aeromedical Examiner (AME) for the Federal Aviation Administration. He holds a private pilot's license and is a member of the International Aeromedical Neurology Consortium, the American Academy of Neurology, and the Aerospace Medical Association. Within the Association, he serves as Chair of the Aviation Mental Health Research Working Subgroup and is a member of the Communications Committee. His honors and awards include two High Reliability Organization Awards, Continuous Process Improvement, from the Defense Health Agency, the Commander's Award for Research in Primary Care, Second Place, from San Antonio Uniformed Services Health Education Consortium, and the Major John Barry Resident Physician of the Year Award from San Antonio Uniformed Services Health Education Consortium.

John Ernsting Award
David Gradwell, B.Sc., Ph.D., MBChB, FRCP, FRCPE, D.Av.Med., FRAeS

Established and sponsored by Environmental Tectonics Corporation in memory of Professor Ernsting. It is given for outstanding research in altitude physiology, and/or longstanding exceptional performance in the education, development, and administration of Aerospace Medicine and related specialties.

David Gradwell, B.Sc., Ph.D., MBChB., FRCP, FRCPE, D.Av. Med., FRAeS, is the recipient of the 2024 John Ernsting Award for his distinguished career in high altitude research with Prof. Ernsting in the RAF and, later, as Professor of Aerospace Medicine at King's College, London, directing academic and clinical developments in the specialty, including the Diploma in Aviation Medicine. He has taught aerospace medicine to many aerospace medicine trainees and was instrumental in achieving specialty recognition for Aerospace Medicine in the United Kingdom. He was the Chief Examiner for the prestigious UK Diploma in Aviation Medicine for many years. He also established a clinic at a London teaching hospital for patients with severe chronic illness wishing to fly and was instrumental in the formation of the committee that used all the essential work to establish the civilian and military medical training specialty of Aviation and Space Medicine in the United Kingdom.

After training in physiology and medicine at the University of Dundee, Dr. Gradwell has spent almost all of his working career in aerospace medicine. Recruited into the Royal Air Force by John Ernsting, after a tour on a fighter base in Scotland, he was posted to the Institute of Aviation Medicine for specialist training. Gaining the Diploma in Aviation Medicine and a Ph.D., he became a Consultant in 1993 and later led the transfer of RAF personnel from Farnborough to the new Centre of Aviation Medicine at Henlow in 1998, when he became the Consultant Adviser, leading the specialty. Working mainly in altitude physiology and life support systems for aircraft such as variants of Hawk and Harrier, much of his research has been in these areas, including his Ph.D. thesis exploring aspects of the cardio-respiratory effects of positive pressure breathing for altitude protection in Eurofighter Typhoon.

After working with Prof. Ernsting at Farnborough, the link continued at King's College London. On his retirement from the RAF, Dr. Gradwell was appointed to the first full time post of Professor of Aerospace Medicine there in 2012. Also appointed to Guy's & St Thomas' Hospitals in London, he established an aeromedical clinic to advise clinicians and their patients with severe chronic illness on the challenges of undertaking passenger flights and contributed to the British Thoracic Society guidelines for physicians managing such patients. He established and chaired the working group of the Royal College of Physicians that was instrumental in achieving full civilian speciality recognition of Aviation & Space Medicine in the UK.

Dr. Gradwell is co-editor of Ernsting's *Aviation & Space Medicine*, the UK-based but internationally recognized textbook in aerospace medicine, and is currently completing the sixth edition, the third for which he has been an editor. He has also presented and lectured widely in the United Kingdom and around the world and has twice been the Royal Aeronautical Society's Stewart Memorial lecturer. He is the current President of the International Academy of Aviation & Space Medicine, the Emeritus Professor of Aerospace Medicine at King's College London, and a Past President of AsMA.

Kent K. Gillingham Award
Amanda Lippert, M.S.Ed., M.S., M.S., CAsP, FAsMA

This award was established and sponsored by the AMST Group of Companies in Austria and the United Kingdom to honor the memory of Kent K. Gillingham, M.D., Ph.D. The award is presented annually to an individual who has made a significant contribution in the field of spatial disorientation and situational awareness related to flight.

Amanda Lippert, M.S.Ed., M.S., M.S., CAsP, FAsMA, LCDR, USN, receives the 2024 Kent K. Gillingham Award for her dedication to Aerospace Medicine and Human Performance. She is an operational researcher bringing novel analog spatial disorientation training to military aviation. Her career is dedicated to advancing aircrew knowledge of human performance in military aviation, increasing flight safety. She is the first graduate of NASA Johnson Space Center's 2-year Fellowship in Human Per-

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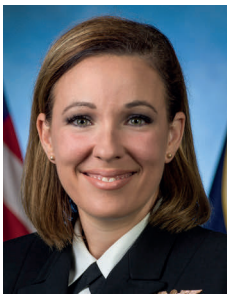

formance and Extreme Environments and the sole provider of Spatial Disorientation (SD) Awareness and Recovery training for all joint, multi-platform aircrew at the U.S. Navy's NAS Patuxent River. As the first graduate of NASA's Fellowship, she used her research experience to move galvanic vestibular stimulation (GVS) out of research and into military training operations, securing funding for a NAVAIR Laboratory. She is collaborating to develop training profiles for spatial disorientation analogs, coupling GVS with visual input from simulators and virtual reality. Her application of a new method with a device that has been used in the research realm for decades to eliminate a training capability gap for the number one human factor cause of fatal mishaps in military aviation (and a prevailing threat in civil aviation) is forward-thinking, unique, and innovative.

LCDR Lippert enlisted in the U.S. Navy in May of 2000. She was the honor graduate at Hospital Corps A-School in 2000 and the honor graduate of Aviation Medical Technician C-School in 2001. Upon graduating, she immediately deployed with Fighter Squadron VF-32 aboard the USS *Harry S. Truman* (CVN-75) to the 5th Fleet. She returned to NAS Oceana, VA, and deployed again in 2002 in support of Operation Enduring Freedom and Operation Iraqi Freedom. Upon graduation from Aviation Physiology Technician C-School, she was assigned to Aviation Survival Training Center (ASTC), Pensacola, FL, in February 2004, where she earned the Master Training Specialist designation and completed her Bachelor degree. She was honorably discharged in 2005 and earned an M.S. in Education and an M.S. in Physiology, both with honors, from Old Dominion University in Norfolk, VA. Upon graduation, she was commissioned a Lieutenant Junior Grade as a Medical Service Corps Officer in the U.S. Navy in May of 2009.

Upon completion of Naval Aeromedical Officer Course at NAS Pensacola, LCDR Lippert was designated Naval Aerospace and Operational Physiologist #303 in 2010. She reported to ASTC Norfolk Virginia, where she served as the Operations and Training Officer from 2010 to 2012. She was assigned as the Aeromedical Safety Officer (AMSO) of Marine Aircraft Group 13 in Yuma, AZ, in 2012, serving as the first F-35 AMSO in support of the U.S. Marine Corp declaring F-35B Initial Operational Capability, and also provided aeromedical and mishap investigation support for the AV-8B. She earned the board certification in Aerospace Physiology (CAsP) in 2013. In June 2015, she reported to Naval Air Systems Command to serve as PMA-202's Mishap Investigation Support Team Lead, Aircrew Systems NATOPS Program Manager, and FAILSAFE IPT Lead.

LCDR Lippert earned the Women in Aerospace Inspiration, Initiative, Impact award in October and the Aerospace Physiology Society's Wiley Post award in 2018. In December 2018, she reported to instruct at the U.S. Marine Corps' weapons school, Marine Aviation Weapons and Tactics Squadron One. While there, she was selected to serve as the Navy's first Research Fellow at NASA Johnson Space Center in Houston, TX, studying Human Performance in Extreme Environments, from 2020 through 2022. Later in 2022, she reported to Naval Test Wing Atlantic, where she currently serves as the Aeromedical Safety Officer in support of developmental test programs in Naval Aviation. She was selected for promotion to Commander and will assume the new rank in Summer 2024.

LCDR Lippert has nearly 1,000 flight hours in more than 20 T/M/S aircraft in Naval Aviation. Her personal awards include the Navy/Marine Corps Commendation Medal (with two Gold Stars), the Navy/Marine Corps Achievement Medal (with two Gold Stars), and two flags (one U.S. Navy and one U.S. Marine Corps) that were flown aboard the International Space Station.

Walter and Sylvia Goldenrath Award
Nereyda Lucia Sevilla, MPH, Ph.D., CAsP

Established in memory of CAPT Walter L. Goldenrath, MSC, USN(Ret.), this award is presented for the most significant contribution in the field of aerospace physiology. It was created at the bequest of CAPT Goldenrath and is funded by the Walter and Sylvia Goldenrath Endowed Fund.

Nereyda Sevilla, MPH, Ph.D., CAsP, FAsMA, received the 2024 Walter and Sylvia Goldenrath Award for her unmatched accomplishments. Her actions as an operational physiologist, researcher, safety investigator, and program manager directly impacted Department of Defense operations and policy. She has over 20 years of active participation in the Aerospace Medical Association. As a U.S. Air Force Aerospace Physiologist, she reviewed international aerospace physiology programs, evaluated commercial-off-the-shelf simulators, revised aerospace physiology regulations, and worked directly with the Chief of Aerospace Physiology for the first ever Air Force wide deployment of Human Performance Training Teams. She was one of the first Air Force physiologists trained as a ground safety officer, paving the way for future physiologists. As a subject matter expert, she revamped the Air Force Aerospace Physiology refresher course for transport, tanker, and bomber aircraft. Her master's thesis in G-induced loss of consciousness has been foundational for targeted acceleration training for fighter aircrew. Her findings and recommendations continue to have an impact in this post-pandemic society.

Dr. Sevilla is the Chief of the Clinical Investigations Program Office (CIPO) within the Research and Engineering Directorate of the Defense Health Agency (DHA). She has program oversight of 19 Military Health System Clinical Investigation Programs which executes over $23M in infrastructure and research funding and over 1500 Graduate Health Science Education (GHSE) protocols. Prior to her assignment at DHA, she was the Chief of the Clinical Investigations for the Air Force and the Human Performance Thrust Area manager for Research and Development. From 2007–2019, she worked directly with Major Commands and operational users for the development of a human performance portfolio that addresses current knowledge and technological needs and requirements.

Dr. Sevilla entered the Air Force in 1997 after attending the U.S. Air Force Academy. She was selected to enter the Aerospace Physiology career field with an assignment at Holloman AFB conducting centrifuge and altitude chamber training. She moved on to hold the Aerospace Physiology Management Fellowship in the Office of the Surgeon General and completed a Masters in Public Health at the Uniformed Services University

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of the Health Sciences with a concentration in biostatistics and epidemiology. Further assignments included Chief of Human Performance Training Teams at Whiteman AFB, MO; and Kunsan AB and Osan AB, South Korea. As part of Team Aerospace, she worked closely with aerospace medicine, life support, wing safety, and other agencies to provide just-in-time human performance training needed to safely and effectively accomplish the missions. She was hand-selected for multiple aircraft safety investigation and accident investigation boards with leading causes that included spatial disorientation and g-induced loss of consciousness.

Dr. Sevilla has been an active member of AsMA since 1998. She was the President of Aerospace Physiology Society from 2016–2017 and AsMA Treasurer from 2018–2022. She has been part of the Nominating, Aviation Safety, and a regular annual member of the Scientific Program Committee. Her awards and honors include Civilian of the Year from both the Air Force Medical Support Agency and the Office of the Air Force Surgeon General, the Paul Bert Award for Research from the Aerospace Physiology Society, an Award for Meritorious Civilian Service from the Department of the Air Force, the Research and Development Innovation Award from the Life Sciences and Biomedical Engineering Branch, and the Theodore C. Lyster Award from the Aerospace Medical Association.

John D. Hastings Award
Angus Rupert, M.D., Ph.D.

Established by the Civil Aviation Medical Association to honor the memory of John D. "Jack" Hastings, M.D. The award is presented annually to an individual who has made outstanding contributions to aerospace neurology and/or cognitive science, in a single year or over a defined period, for the advancement of cognitive performance risk assessment related to flight or space operations. Open to current AsMA members who have been members in good standing for the previous five (5) years. The award may be given for achievements over one or several years.

Angus Rupert, M.D., Ph.D., is the 2024 recipient of the John D. Hastings Award for his dedication to the fields of Aviation Safety and Human Performance. As a pilot, research professor, and flight surgeon, his research on Spatial Disorientation has resulted in the development of devices and solutions, including multi-sensory cueing technologies to protect aviators, astronauts, and patients with balance disorders. He developed an objective test to measure when returning astronauts would be safe to return to flight. Within his research programs, he provided six graduate students concepts and ideas to complete Ph.D.s associated with tactile cueing. He was awarded an Advanced Concept Technology Demonstration by the U.S. Navy to develop his novel concept of using tactile cueing to mitigate spatial disorientation. He developed an underwater version of his tactile cueing device, and has performed cognitive/perceptual analyses of spatial disorientation mishaps. In 2017/2023, he created the Spatial Orientation Modeling Expert Workgroup meetings attended by all of the key neuroscientists in Government.

Following a Ph.D. in neurophysiology from the University of Illinois and an M.D. from the University of Toronto, Dr. Rupert travelled throughout the United States and Canada visiting all of the academic, government, and military labs that could provide the ideal location and equipment to combine his vocations (medicine and neurophysiology research) and his avocation (aviation). The clear choice was the U.S. Naval Aerospace Medical Research Laboratory (NAMRL), which not only had the world's best selection of unique acceleration research devices, but also the leading vestibular psychophysicist in the person of Dr. Fred Guedry. After joining the U.S. Navy in 1985, Dr. Rupert served an operational tour as a Navy flight surgeon in the Azores before returning to NAMRL in Pensacola, FL. At NAMRL he developed programs to explore the vestibular psychophysics and neurophysiological responses to the unusual accelerations experienced by pilots, astronauts, and operators of high-performance aerospace platforms. In 1993 he was assigned to NASA Johnson Space Center to develop countermeasures to sensory-motor problems faced by astronauts, including spatial disorientation and space motion sickness. He invented and developed the Tactile Situation Awareness System (TSAS) as a device to reduce the incidence of spatial disorientation mishaps and to enhance the performance of pilots, astronauts, and divers. In 2008 when NAMRL was relocated as part of a Base Realignment & Closure (BRAC) to Wright-Patterson AFB, he retired from the Navy to join the U.S. Army Aeromedical Research Laboratory in Ft. Rucker, where he continued to develop practical multisensory solutions to the problems faced by personnel operating in sensory deprived or altered acceleration environments.

Dr. Rupert has successfully transitioned the tactile cueing device, originally developed for aerospace environments, to balance rehabilitation technologies for the physiotherapy community treating patients suffering balance dysfunction. In addition, for the past 25 years he has provided perceptual modeling expertise to all branches of the U.S. military and the National Transportation Safety Board in support of aviation mishap investigations. In 2017 the U.S. State Department awarded him the Fulbright Distinguished Chair in Advanced Science and Technology to provide the opportunity to transition the TSAS to Australian aviation assets. His other awards include the Kent Gillingham Award from the Aerospace Medical Association and the Aviation Week and Space Technology Laurels Award.

Meetings Calendar

July 30–Aug. 1, 2024; 13th Annual International Space Station Research and Development Conference (ISSRDC); Boston, MA, United States. Early registration is now open until May 24. To register or for more information, please visit https://issconference.org/.

Calls for Papers

Ongoing: International Astronautical Federation (IAF) Global Networking Forum Space Conversations Series; ONLINE, 14:00 Paris time. Please visit https://www.iafastro.org/events/iaf-gnf-space-conversations-series/ for more info.

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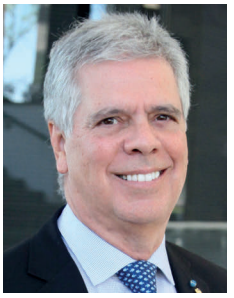
Won Chuel Kay Award

Paulo M. Alves, M.D., M.Sc., FasMA, FCAMA

Established and sponsored by the Korean Aerospace Medical Association in honor of Won Chuel Kay, M.D., the former Surgeon General of the Korean Air Force, founder and first Medical Director of Korean Airlines and first President of the Korean Aerospace Medical Association. This Award is presented annually to a member who has made outstanding contributions to international aerospace medicine.

Paulo Alves, M.D., MS, FAsMA, FCAMA, is the 2024 recipient of the Won Chuel Kay award for his sustained aviation medicine contributions to the international aviation industry and to aviation safety organizations in several countries for many years. His previous experience led to his appointment as General Medical Manager of Varig Brazilian Airlines. He has not only assisted many airlines individually, but has also collaborated with governmental and aviation advocacy organizations by sharing data and expertise to support decisions on aviation medical kit regulations and passenger and crew health matters. He has been a frequent spokesperson for AsMA with the press and helps with individual queries coming through AsMA's "Ask the Expert" portal. Recently, he developed an app to help aircrew members in collecting medical information in a structured way and transmit it to ground-based medical centers. This app has been already adopted by 20 major airlines in North America and Europe, significantly enhancing air-to-ground medical communications, gradually becoming a standard within the commercial aviation industry.



A cardiologist, Dr. Alves previously was the General Medical Manager for Varig Brazilian Airlines, where he worked for 23 years, 10 of which in that capacity. He currently provides technical guidance and analysis for MedAire's MedLink medical advisory service, as well as being a member of the MedAire Medical Advisory Board. He is also MedAire's liaison with civil aviation regulators and industry associations on all matters interesting airline medicine. He is MedAire's representative at ICAO's CAPSCA.

Dr. Alves was a member of the IATA Medical Advisory Group from 2002 to 2006. He is a member of the International Academy of Aerospace Medicine, a Fellow of the Aerospace Medical Association (AsMA), and a Fellow of the Civil Aviation Medical Association, and is a regular author of aviation medicine scientific papers and presentations. He is a past Chair of the AsMA's Air Transport Medicine Committee and a member of the National Business Aviation Association (NBAA) Safety Committee. He is the immediate past president of the IberoAmerican Aerospace Medical Association, and past president for the International Airlines Medical Association, and the Brazilian Society of Aerospace Medicine.

Aerospace News Highlights

Every Friday, the Journal Department posts highlights of aerospace medical & research headlines to https://www.asma.org/news-events/asma-news/aerospace-news-highlights and to AsMA's social media accounts.

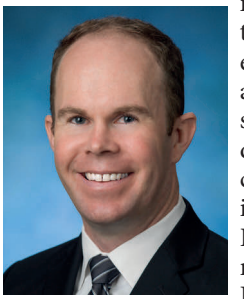
Dr. Alves' awards include the John A. Tamisiea, Harry G. Moseley, and Boothby-Edwards Awards from the AsMA, an Annual Scientific Award for outstanding research contributions to the Society of Critical Care Medicine, a MedAire CEO Award for outstanding achievements in aviation medicine from MedAire, and the George Kidera Award for outstanding achievements in aviation medicine from the Airlines Medical Directors Association. He has over 120 papers and presentations to his name.

Joe Kerwin Award

Benjamin Johansen, D.O., MPH

Established and sponsored by KBR in honor of Joseph P. Kerwin, the first physician/astronaut. It is presented for advances in the understanding of human physiology during spaceflight and innovation in the practice of space medicine to support optimal human health and performance in space.

Benjamin Johansen, D.O., M.P.H., receives the 2024 Joe Kerwin award for his dedication to the development of the NASA Commercial Crew Program, where he was the Program Medical Officer, and for the expertise provided in ensuring the health and safety of NASA crewmembers while simultaneously empowering commercial development of human spaceflight. He currently serves as the Program Medical Officer for the Commercial Crew Program (CCP), where he is ultimately responsible for maintaining the NASA Health and Medical Technical Authority. He has been instrumental in supporting innovative vehicular designs, providing console support in multiple roles, and overseeing all of the other physicians working in these programs. He has directly overseen NASA responses to CCP-related Human Health and Performance (HH&P) issues. He personally reviews and frequently writes and edits all HH&P-related Flight Rules governing CCP for both Boeing and SpaceX vehicles. As an active flight surgeon, he supports a variety of console roles. He has also served as crew surgeon of multiple ISS increments and as the Star City surgeon in Russia.



Dr. Johansen graduated from the Arizona College of Osteopathic Medicine at Midwestern University. He completed Internal Medicine residency training at Banner University Medical Center and Carl T. Hayden VA in Phoenix, AZ. He subsequently completed Aerospace Medicine residency training and a Master of Public Health degree at the University of Texas Medical Branch in Galveston, Texas. He is board certified in Internal Medicine and Aerospace Medicine.

Dr. Johansen is the Orion Program Medical Officer overseeing program development and medical operations in preparation for the return of crewed missions to the Moon. Prior to this assignment he served as the Commercial Crew Program Medical Officer overseeing the development and medical operations of NASA's return to U.S.-based launch and landing operations. He was instrumental in developing NASA Flight Surgeon support from SpaceX's Hawthorne Mission Control Center and serving in the Chief Medical Officer role as a member of the Mission Management Team. Additionally, he has been Flight Surgeon on three missions to the International Space Station (ISS), including as lead Flight Surgeon for the NASA/SpaceX

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Crew-1 mission marking the first operational commercial crew flight to the ISS.

In addition to his NASA duties, Dr. Johansen works as a Flight Surgeon in the Air Force Reserves assigned to 1st Air Force Detachment 3 at Patrick Space Force Base, FL. His responsibilities include providing medical command and control for Pararescue operations in the event of a spacecraft contingency requiring Department of Defense assistance. He is a member of the American College of Physicians, Aerospace Medical Association (AsMA), Space Medicine Association, and the Society of NASA Flight Surgeons, of which he served as President in 2022. His honors and award include Internal Medicine Intern of the Month from BGSMC, Internal Medicine Annual Best Team Player Award, the Jeffrey R. Davis, M.D., Aerospace Medicine Endowed Scholarship from AsMA, the William K. Douglas Aerospace Medicine Award, NASA's Superior Accomplishment and Demo2 Superior Achievement Awards, and the Mary T. Klinker Award from AsMA.

Mary T. Klinker Award
Natacha Chough, M.D., MPH, AFAsMA

Established by the Flight Nurse Section in 1968, this award became an official AsMA award in 1972. In 1978 it was renamed in memory of Mary T. Klinker, who was killed in a C-5A crash while performing a humanitarian mission. The award is given annually to recognize significant contributions to, or achievements in, the field of aeromedical evacuation. It is sponsored by ZOLL Medical Corporation.

Natacha Chough, M.D., M.P.H., AFAsMA, is the 2024 recipient of the Mary T. Klinker award for her significant contributions to the field of Aeromedical Evacuation. She is dual board certified in Aerospace Medicine and Emergency Medicine. She created the "Direct Return" program for U.S. astronauts to transport them safely home on a Gulfstream V aircraft with appropriate medical support immediately post-landing. Additionally, she was the prime Flight Surgeon for the Axiom-1 (first private mission to the International Space Station) and supported the crew's shipboard and helicopter recovery from their splashdown site. She single-handedly developed the standards used at NASA for direct return of crew on a Gulfstream-V (GV) aircraft and continues to be the lead for that program. She is responsible for training both the Flight Surgeons assigned to individual crewmembers and a designated GV Flight Surgeon who provides medical support en route. She has adapted the program to include direct return from Kazakhstan (Russian Soyuz landing site), the Gulf of Mexico/Atlantic Ocean (SpaceX splashdown site), and the proposed landing sites for Boeing.

Dr. Chough was born and raised in the Pacific Northwest and graduated from the University of Washington with a B.S. in Biology in 2001. She interned and worked at various NASA Centers in life sciences and served as a U.S. Peace Corps Volunteer (Turkmenistan, 2003–2005) prior to obtaining her M.D. at the University of Michigan (2010). After medical school, she completed Emergency Medicine residency at Stanford (2013), followed by Aerospace Medicine residency at the University of Texas-Medical Branch (UTMB) in 2015, and is board-certified in both specialties.

Dr. Chough has spent her career at NASA's Johnson Space Center as a contract Flight Surgeon, providing ground support for astronauts before, during, and after their spaceflights. She has served as the Flight Surgeon for 4 prior ISS missions, including Axiom-1, the first all-private astronaut crew to the ISS, and is actively assigned as the Flight Surgeon for Expedition 71, one of the current ISS crews on-orbit. In 2022, she joined the core faculty of UTMB's Aerospace Medicine Division and is thrilled to support the operational education of future Aerospace Medicine specialists.

Dr. Chough is a member and past President of the Aerospace Medicine Student and Residents Organization (AMSRO), a member of the Space Medicine Association, American Academy of Emergency Medicine, and Wilderness Medical Society, and a Fellow of the Aerospace Medical Association (AsMA). Her honors and award include the Jeffrey R. Davis Aerospace Medicine Endowed Scholarship, the Society of NASA Flight Surgeons Outstanding Student Award, NASA Johnson Space Center's Power of One Award for Hurricane Harvey ISS medical support, KBRwyle Team Bravo Award for ISS medical kit updates, NASA Johnson Space Center Superior Achievement Award, and a NASA Group Achievement Award for Axiom-1 mission support.

Sidney D. Leverett Environmental Sciences Award
Brian C. Hanshaw, D.O., MPH

Established in memory of Sidney D. Leverett, Jr., Ph.D., this Environmental Science Award is presented annually to an individual who has made a significant contribution in the field of environmental medicine through a publication in Aerospace Medicine and Human Performance, or by activities conducted in support of aerospace systems operation. It is sponsored by Environmental Tectonics Corporation.

Brian Hanshaw, D.O., MPH, receives the 2024 Sidney D. Leverett Environmental Sciences Award for his first authorship of an article on spaceflight recovery for acute inhalational exposure to hydrazines [Hanshaw BC, Ryder VE, Johansen BD, Pattarini JM, Nguyen HN, Nowadly CD, Blue RS. Spaceflight Recovery Considerations for Acute Inhalational Exposure to Hydrazines. Aerosp Med Hum Perform. 2023; 94(7):532-543]. The award was presented from the Aerospace Medical Association during Honors Night ceremonies held May 9, 2024, at the Hyatt Regency, Chicago, IL. In this article, the authors reviewed the literature regarding hydrazine/hydrazine-derivative exposures and clinical seqeulae. They found that evidence of clinical sequelae was varied and included muscosal irritation, respiratory concerns, neurotoxicity, hepatotoxicity, hemotoxicity, and longitudinal risks. Symptoms of acute exposure are usually limited to mucosal and respiratory risk, while neurological, hepatotoxic, and hemotoxic sequelae were unlikely without recurrent or non-inhalational exposure. They concluded that clinical management should focus on likely clinical concerns supported by existing data. They found little evidence supporting a need for acute interventions for neurotoxicity and no evidence for hemotoxic

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sequelae needing on-scene management. This study is pivotal and should be viewed as an example of the way research gaps in the field should be approached.

Lt. Col. Hanshaw is the Chief of Aerospace Medicine (SGP) at the 6th Medical Group at MacDill AFB, FL. As the SGP and Public Health Emergency Officer, he oversees multiple Air Force and coalition medical teams delivering healthcare for more than 30,500 enrollees, including joint and allied warfighters. In support of missions worldwide, the clinics provide primary care, flight medicine, dental, mental health, preventative medicine, bioenvironmental and medical support services to the Department of Defense's largest single-unit catchment area with more than 265,000 eligible beneficiaries.

Lt. Col. Hanshaw entered the Air Force in June 2011 through the Financial Assistance Program. He subsequently completed a Family Medicine Residency in Dayton, OH, in 2014 where he served as Chief Resident. He has maintained his Family Medicine and OMT board certification since 2014 and recently became board certified as an Aerospace Medicine specialist in January 2024. Prior to assuming his current position, he completed the Air Force Institute of Technology (AFIT) sponsored Aerospace Medicine Residency at the University of Texas Medical Branch (UTMB) in Galveston, TX. During this training he worked with national and international experts in space and aviation medicine at the National Aeronautics and Space Administration (NASA) as well as multiple commercial space companies. He participated in space medical operations, collaborated with biomedical engineers on various space medicine projects, and supported polar medical operations at McMurdo Station in Antarctica. Additionally, he has previously served as an F-22 flight surgeon in Alaska and Flight Medicine Flight Commander in Utah.

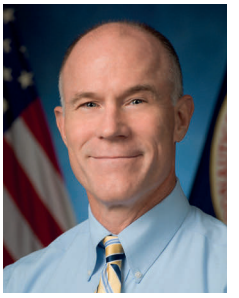
Lt. Col. Hanshaw is a member of the American College of Preventive Medicine, the American Osteopathic Association, and the Aerospace Medical Association. His awards and honors include the Meritiorious Service Medal with one oak leaf cluster, the Air Force Commendation Medal, the Air Force Outstanding Unit Award, the National Defense Service Medal, the Air and Space Longevity Service Award, and the Global War on Terrorism Service Medal. With AsMA he placed second in competition for the Fellows scholarship and was a Space Medicine Association Jeff Myers Young Investigator Award winner.

Eric Liljencrantz Award

Richard Scheuring, D.O., M.S., RMSK, FAsMA, FAAFP

The Eric Liljencrantz award was established in memory of CDR Eric Liljencrantz, MC, USN, whose brilliant career in aviation medicine was cut short by his death in an airplane accident in 1942. It is given annually to honor excellence as an educator in aerospace medicine, or basic research into the problems of acceleration, altitude, or weightlessness. It is sponsored by Aerospace Medical PLC.

Richard Scheuring, D.O., M.S., RMSK, FAsMA, FAAFP, is the recipient of the 2024 Eric Liljencrantz Award for his distinguished career, in which he has made aerospace medical education a priority, bringing his knowledge and experience in the field to medical colleagues, astronauts, aircrew members,



and students worldwide. He has been recognized by several organizations for excellence, including receiving the Houston Methodist Hospital Department of Orthopedic Surgery Outstanding Educator Award. In this instance, Dr. Scheuring used his knowledge of pre-, in- and postflight space medicine related musculoskeletal conditions to educate nationally recognized leaders in orthopedic surgery and sports medicine to help diagnose, treat, and design preventive medi¬cine measures for occupational injuries in NASA astronauts and pilots. He has served as a mentor and preceptor for the aerospace medicine clerkship at NASA-JSC since 2007 and has lectured worldwide on aerospace medical topics.

Dr. Scheuring is a NASA flight surgeon at the Johnson Space Center in Houston, TX, a position he has held since 2007. He is currently the lead physician for the Artemis II lunar mission set to launch September 2025; the Team Lead Physician for NASA's Astronaut Musculoskeletal Medicine and Rehabilitation; and has served as the lead crew surgeon of ISS Expeditions 52/53, ISS Expeditions 60/61/62, and most recently as the deputy crew surgeon for the U.S. record-setting 1-year mission of Expeditions 65/66. He also serves as a Colonel in the U.S. Army Reserves. He is stationed at the Uniformed Services University of the Health Sciences at Bethesda, MD, where he is an associate professor in military and emergency medicine.

Dr. Scheuring completed his undergraduate degree at Eastern Illinois University in 1986, medical school at the Chicago College of Osteopathic Medicine in 1993, Family Practice residency at Presbyterian/St. Luke's Medical Center in Denver, CO, in 1996, the Aerospace Medicine Residency and Master of Science graduate program at Wright State University in Dayton, OH, in 2005, and most recently an orthopedic ultrasound fellowship at Detroit Medical Center in 2013. He is a Fellow of the Aerospace Medical Association (AsMA) and the American Academy of Family Physicians (AAFP). He serves as a mentor and guest speaker for the Aerospace Medical Student-Resident Organization (AMSRO) through AsMA.

Dr. Scheuring received the NASA "Silver Snoopy" in 2019 for extraordinary contribution to the U.S. space program and devotion to crew health and safety. The Aerospace Medical Association recognized him with the Joseph Kerwin Award in 2017 for his work on identifying the mechanisms of shoulder injuries in U.S. astronauts training in the Neutral Buoyancy Lab Extravehicular Mobility Unit and designing successful mitigation strategies. He was also recognized in 2021 with the NASA Exceptional Achievement Award for his role as the ISS Expedition 60/61/62 Prime Crew Surgeon and as COL Drew Morgan's flight surgeon. In 2020 NASA awarded him the NASA Silver Achievement award for outstanding contribution to the engineering effort to design new exercise equipment for astronauts going to the Moon or Mars. His military medals include the Defense Meritorious Service Medal, the Joint Service Commendation Medal, the senior space badge, senior flight surgeon badge, Antarctic service medal, and U.S. army commendation and achievement awards.

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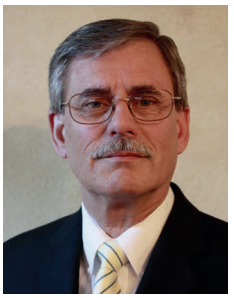
Raymond F. Longacre Award

Stephen C. Merriman, B.S., M.S., ATFBoeing, AFAsMA, FHFES

Established to honor the memory of MAJ Raymond F. Longacre, MC, USA. It is given annually for outstanding accomplishment in the psychological and psychiatric aspects of aerospace medicine. It is sponsored by the Aerospace Human Factors Association.

Stephen "Steve" Merriman, B.S., M.S., ATFBoeing, AFAsMA, FHFES, is the 2024 recipient of the Raymond F. Longacre Award for being a stanchion of aerospace safety for military and civilian operations in both government and industry. He has developed multiple training courses for human factors specialists and served as a member of various scientific advisory groups. His dedication to the human factor in technology development has been paramount to its success. He is responsible for crew station design and human engineering of 10-20 aircraft. He assisted in the development of cockpit standardization policies and requirements in the areas of controls, lighting, geometry and layout, noise, safety, environment, and display design. He served as Crew Systems Division technical lead on 40+ system development projects and provided technical assistance to the Navy on advanced research and development of helmet-mounted sights/displays, electro-luminescent displays, head-up displays, multi-function switching, crew station modeling, and aircraft instrumentation design. He is currently providing expert consulting to Boeing to develop human factors and safety design practices for commercial and military aircraft and space systems.



Mr. Merriman has bachelors and masters degrees in psychology and 55+ years of experience as a practitioner of human factors engineering (HFE) and human systems integration (HSI). He has provided support to more than 65 acquisition programs, including the NASA Space Shuttle, Army manned and unmanned ground combat vehicles, Army unmanned air vehicles, missile systems, and more than 50 Navy, USMC, Army, and Air Force aircraft. From 1967 until 1987, he held systems acquisition and R&D positions with the U.S. Navy, Department of Defense Training and Performance Data Center, and the Office of the Secretary of Defense. From 1987 through 2015, he served in a variety of technical and leadership positions with The Boeing Company. He is an active member of several technical societies and government-industry associations, a Human Factors and Ergonomics Society Fellow, an Aerospace Medical Association Associate Fellow, and a Boeing Associate Technical Fellow. He was a recent member of the U.S. Air Force Scientific Advisory Board (2015–2018). He was a past chair of the SAE G-45 HSI Committee and currently serves as a senior advisor. He is a current Director with the Foundation for Professional Ergonomics (FPE) and a Life member of the SAFE Association. He is also an HFE/HSI consultant to government and industry customers.

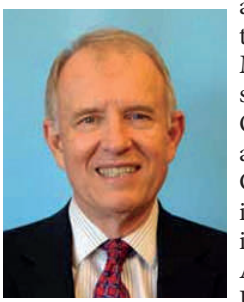
Mr. Merriman has been recognized by both military and civilian groups. He has won a variety of awards from Boeing, including a 25-year service award, and received the SAE International Aerospace Council James M. Crawford Technical Standards Board Outstanding Achievement Award. He also received certificates of appreciation from the U.S. Army and the Boeing Vice President for contributions to Integrated Mission Test 1 and for superior performance at the System of Systems Preliminary Design Review and was designated as MANPRINT "Practitioner of the Year," presented by U.S. Army MANPRINT Director, Office of the Deputy Chief of Staff, G-1, Department of the Army. He has been an author or co-author on more than 25 publications.

Theodore C. Lyster Award

Courtney D. Scott, Jr., D.O., MPH, FAsMA

This award was established to honor the memory of Brig. Gen. Theodore C. Lyster, the first Chief Surgeon, Aviation Section, United States Signal Corps. It is given annually for outstanding achievement in the general field of aerospace medicine. It is sponsored by the Army Aviation Medical Association.

Courtney D. Scott, Jr., D.O., MPH, FAsMA, receives the 2024 Theodore C. Lyster Award for his outstanding achievements in aerospace medicine. During residency at the U.S. Air Force School of Aerospace Medicine, he analyzed the impact of strategic aeromedical evacuation from Operation Just Cause, which became the academic basis for the development of Critical Care Air Transport Teams. He is responsible for the development and implementation of the Preventive Health Assessment, which is still in use by all U.S. military services today. He served as the first ever Expeditionary Medical Group Commander for the Air Force, creating the first response to the Nairobi Embassy bombing in 1998. He subsequently served as Group Commander at Ramstein AFB, where he coordinated the medical response for the bombing of the USS *Cole*. He was later selected as Commander and Dean of the U.S. Air Force School of Aerospace Medicine. In his current position as Division Manager for the FAA Aerospace Medical Certification Division, he leads the General Review Team and is instrumental in the medical certification of pilots and the training of new medical officers for the Federal Aviation Administration (FAA).



Dr. Scott is a military veteran who served in the U.S. Merchant Marine during the Vietnam War. In 1986 he began a 22-year career in the U.S. Air Force, retiring as a Colonel. He began his military career as Chief of the Emergency Room at the U.S. Air Force Academy. He was selected for training as a Resident in Aerospace Medicine in 1989. Subsequently he went on to serve in many high-profile staff and medical command positions at Air Force installations across the U.S. and in Saudi Arabia and Germany. He served as Chief of Physical Standards for the USAF from July 1996 to June 1998. In June 2003, Dr. Scott became the Commander and Dean of the U.S. Air Force School of Aerospace Medicine at Brooks City-Base, TX. He concluded his military career as Commander of the Defense Medical Readiness Training Institute, Fort Sam Houston, TX.

Dr. Scott is currently a certification physician for the Aerospace Medical Certification Division of the Civil Aerospace Medical Institute. Before joining the FAA, he served as Advi-

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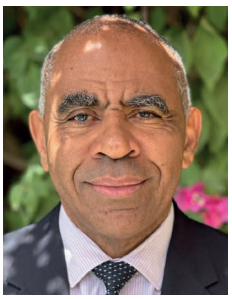
sor for International Affairs and Global Health Security to the Assistant Secretary, Office of Health Affairs, U.S. Department of Homeland Security. In the FAA, he served as branch manager, Certification Review and Appeals Branch for the Aerospace Medical Certification Division, from October 2010 until January 2012. He then served as the Manager of the Aerospace Medical Certification Division from January 2012 until June 2015. He has continued to serve since that time as a certification physician for the FAA.

Dr. Scott is board certified in Aerospace Medicine by the American Board of Preventive Medicine and is a member and fellow of the Civil Aerospace Medical Association, member and fellow of the Aerospace Medicine Association, and member of the Association of Specialists in Aerospace Medicine. His military decorations include the Legion of Merit and the Meritorious Service Medal with five oak leaf clusters.

Marie Marvingt Award
Massamba Diop, M.D.

Established and sponsored by the French Society of Aerospace Medicine in memory of Marie Marvingt (1875-1963), a pioneer French pilot and surgical nurse who, for more than 50 years, actively and untiringly involved herself in the conception and development of air ambulance services and in the education of the general public regarding their use and benefits. The award is presented annually to honor excellence and innovation in aerospace medicine.

Massamba Diop, M.D., is the 2024 recipient of the Marie Marvingt Award for his accomplishments in aerospace medicine. He



created "SOS Médecin Senegal" in 1997, certainly one of the most professional medical repatriation and resuscitation companies active in the West African countries area. Through this company, he built a medical regulation which assesses the clinical situation, searches for a hospital if necessary, and organizes medical transport; an administrative regulation that takes care of the end-to-end management of all logistics; a team made up of emergency physicians, anesthesiologists, ACLS and PHTLS certified nurse teachers and certified nurses with recognized expertise in aeronautical medicine; and a state-of-the-art, high-performance medical transport equipment standard periodically revised according to manufacturer standards. These allow for rapid, secure, and quality evacuation. Dr. Diop still provides medical care in the air for medical repatriations between West African countries and around the world on commercial flights and private medical planes.

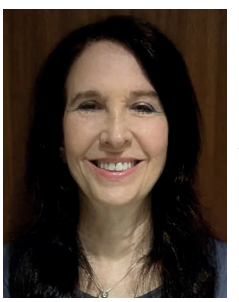
Dr. Diop earned his M.D. at Sorbonne University in 1990 and a diploma in medical repatriation in 2004. He earned aerospace medicine certification in Tours, France, in 2006, and certification in Advanced Trauma Life Support and Advanced Cardiac Life Support in 2002 in France. From 1989 to the present, he has served as a Hospital Practitioner at SAMU-SMUR Essonne, France. From 1990–1999, he was an Associate Physician and Executive Board member of SOS Medecin Essonne. From 1997 to the present, he has been General Director and Founder of SOS Medecin, Medical Director and medevac doctor of SOS Medecin Senegal, first aid trainer, Board President of the SAMU Social Senegal, medical auditor for assistance companies, Board member of the Cheikh Anta Diop University Foundation in Dakar, and a medical correspondent for Air France in Senegal.

Dr. Diop is a speaker at national and international congresses, a lecturer at Cheikh Anta Diop University, and was President of the Senegalese Society of Anesthesiology and Intensive Care and Emergency Medicine from 2019–2023. He has provided medical support for the World Islamic Conference, the World Festival of Black Arts, and the Summit of Heads of State of the Francophonie in Senegal. He has also participated in disaster relief efforts and humanitarian missions. His awards include Knight of the National Order of Merit (France), Knight of the Legion of Honor (France), and Knight of the National Order of the Lion (Senegal). He was the 2022 recipient of the Paul Dudley White International Scholar Award. His company has won the Cauris d'or of Excellence from the Movement of Senegalese Enterprises and the Sédar Special Award from the Sédar Awards.

Harry G. Moseley Award
Harriet Lester, M.D., FAsMA, FCAMA, FAAO, FAsHFA

Established in memory of Col. Harry G. Moseley, USAF, MC, in recognition of his material contributions to flight safety. It is given annually for the most outstanding contribution to flight safety. It is sponsored by the International Association of Military Flight Surgeon Pilots.

Harriet Lester, M.D., FAsMA, FCAMA, FAAO, FAsHFA, received the 2024 Harry G. Moseley Award for being a thought



leader with numerous flight safety collaborative innovations. Her "Virtual Site Visit" enables remote FAA AME designee audits. Her training initiatives include AsMA "Special Senses" Panels (in 3rd year); FAA CORE 30 Airport Runway Safety Human Factors; and Aerospace Ophthalmology for American Academy of Ophthalmology (AAO). She has been with the FAA Eastern Region for 23 years and led the National Regional COVID-19 response as Acting Senior Regional Flight Surgeon during the height of the pandemic. She has contributed to flight safety in significant, practical, and unique ways, encompassing designee oversight, crisis management, team safety leadership, and education. She created a multimodal AAO Aerospace Ophthalmology Workgroup and annual instruction course in 2016. She led the FAA 9/11 Federal Air Marshal Aeromedical hiring 6 months after being hired, resulting in the expanded "FAM" workforce for Flight Safety. She is an Aerospace Ophthalmology authority whose opinions, research guidance, and presentations are used by FAA and myriad external stakeholders.

Dr. Lester is Eastern Regional Flight Surgeon (RFS), a position she has served in since 2001, at the Federal Aviation Administration (FAA) Office of Aerospace Medicine (AAM), Aviation Safety (AVS), with aeromedical oversight responsibility for New York, New Jersey, Pennsylvania, Virginia, West Virginia , Maryland, Delaware, and the District of Columbia. She

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concurrently served as Acting Senior Regional Flight Surgeon in 2022 through the height of the pandemic, with national oversight responsibility for all FAA aeromedical regions.

Dr. Lester is involved with mentoring and STEM, serving on the Advisory Council of York College Aviation Institute (City College of New York, CCNY), as well as on the Wings Club History and Education Committee. She is involved with efforts to address the problem of Laser Strikes, and is also involved with ICAO related initiatives. She co-created the "Virtual Site Visit" that enabled Aviation Medical Examiner designee site visit audits without travel, with more than 2000 performed to date in the United States and internationally. She has been part of many emergency responses, starting with the post-9/11 rapid expansion of Federal Air Marshals up through COVID. She helped coordinate the very first centralized hiring initiative for FAA Air Traffic Controllers and continues to support new hiring initiatives.

Dr. Lester is a Fellow of the Aerospace Medical Association (AsMA), Civil Aviation Medical Association (CAMA), American Academy of Ophthalmology (AAO), and AsMA Human Factors Association (AsHFA). She has served as AsMA Council Member-at-Large from 2021-2024, as AsHFA Executive Committee Member-At-Large since 2018, and as AsHFA Program Chair since 2022. She has served 15 consecutive years as Chair and Co-Chair of the FAA Regional Occupational Safety and Health Committee (OSHECCOM), bringing together management and labor and continues to create numerous collaborations to promote understanding of the "Special Senses" and Human Factors to support the safety of the National Airspace System. Board Certified in Ophthalmology, she is a past recipient of the Thomas J. and Margaret D. Tredici Award for contributions to aerospace ophthalmology and vision science, and a past recipient of the Marie Marvingt Award for excellence and innovation.

John Paul Stapp Award
Diego Garcia, M.D., MSHF

This award was established and sponsored by Environmental Tectonics Corporation to honor Col. John Paul Stapp, USAF(Ret.). The award is given annually to recognize outstanding contributions in the field of aerospace biomechanics and to promote progress in protection from injury resulting from ejection, vibration, or impact.

Diego Garcia, M.D., MSHF, is the 2024 recipient of the John Paul Stapp Award for his outstanding self-initiative, dedication, expertise, and influential contributions in aerospace medicine and aerospace biomechanics. His knowledge and experience span airline operations, aviation health policy, safety management, and resilient engineering. He has contributed to many accident investigation efforts. As an aerospace medicine subject matter expert (SME), he has expanded his contributions, particularly during the COVID-19 pandemic. He actively participated in human performance analysis, survivability studies, and human-centered design efforts with relevant institutions.

Currently working as a researcher and adjunct professor, he collaborates as an SME with various universities, with ARCM (AIG SAM region), and with aerospace manufacturers in human-system integration efforts. His contributions extend to aeromedical and safety policy enforcement at the government level, safety systems implementation, aircrew health programs, and extreme survival and crashworthiness studies.

Dr. Garcia is a specialist in Aerospace Medicine holding a master's degree in Human Factors. He is an adjunct professor and researcher, currently collaborating as an SME with various universities, with ICAO and IATA technical groups, and with other umbrella organizations. He also collaborates within the aerospace manufacturing industry in human-system integration efforts. His expertise includes aeromedical and safety policy enforcement at government level, safety systems implementation and promotion, quality compliance, aircrew health, safety events investigation, public health emergency preparedness, aeromedical retrieval, and critical medicine. He is also a chartered lecturer and educator, and his research interests encompass human-systems interface design and improvement, behavioral and cognitive science, space medicine, global health, and crashworthiness & survivability engineering.

Dr. Garcia is Vice President of the Colombian Aerospace Medicine Association, and a member of the Aerospace Human Factors Association, where he serves as Publicity and Communications Committee Chair. He is an Associate Fellow of the Aerospace Medical Association (AsMA), was elected a Member-at-Large of AsMA's Council, is the Chair of the Communications Committee, and member of the Human Performance, Aerospace Safety, and Mental Health Committees. He is the author or co-author of 20 publications.

John A. Tamisiea Award
Gerald Saboe, D.O., M.P.H., FAsMA, FAsHFA, FCAMA, FACOEM, FAOCOPM, FACPM

This award was established and sponsored by the Civil Aviation Medical Association in memory of John A. Tamisiea, M.D. The award is given annually to an aviation medical examiner or other individual who has made an outstanding contribution to the art and science of aviation medicine in its application to the general aviation field.

Gerald Saboe, D.O., M.P.H., FAsMA, FAsHFA, FCAMA, FACOEM, FAOCOPM, FACPM, receives the 2024 John A Tamisiea Award for his lifelong contributions to Aerospace Medicine, particularly general aviation. His dedicated and selfless commitment to CAMA earned him CAMA's Presidential Commendation and the Davis Award for exceptional service to aviators. As a researcher, his human factor design and testing experience significantly enhanced aviator protective systems, helping adapt numerous military equipment and testing systems for general aviation, including innovations to FAA color vision testing procedures. His extensive knowledge and expertise in administering multiple FAA color vision tests to civilian aviators using standardized methodology helped support less-equipped AME offices, minimized false testing failures, and reduced unneces-

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sary FAA operational flight evaluations. His direct involvement significantly improved the effectiveness of the equipment and procedures used by local San Antonio FSDO Inspectors to evaluate civil airmen with color vision and other functional eye issues. His dedicated support to AsMA has also been exemplary and without peer.

Dr. Saboe is currently employed by the Defense Health Agency as a civil service Aerospace Medicine Specialist (AMS) physician working for the USAF, 59th Medical Wing at Joint Base San Antonio – Lackland AFB, TX. He is also an FAA consultant and Senior Aviation Medical Examiner (AME) who operates "Saboe Aviation Medicine," an FAA aviation medicine clinic for the past 16 years. While completing his premedical education at Luther College in Decorah, IA, he advanced his flight training at Decorah Municipal Airport before attending the College of Osteopathic Medicine and Surgery in Des Moines, IA, in 1975, graduating in 1978.

Dr. Saboe has been a member of the Aerospace Medical Association (AsMA) since 1978 and a Life Member since 1988. His AsMA service support includes serving at annual scientific meetings as Session Chair and Co-Chair multiple times; as an author and presenter during AsMA scientific sessions; as a peer reviewer for the AsMA *Aerospace Medicine and Human Performance* (AMHP) journal for 19 years; member of the AsMA Scientific Program Committee; and was elected as Chair of the AsMA Associate Fellows Group in 1995, then selected as an AsMA Fellow in 1996. Additionally, he was selected as Academician of the International Academy of Aviation and Space Medicine (IAASM) in 2001; selected as a Civil Aviation Medical Association (CAMA) Fellow in 2014, and as an Aerospace Human Factors Association (AsHFA) Fellow in 2015. He also was selected as a Fellow of the American College of Occupational and Environmental Medicine (ACOEM) in 2013; the American Osteopathic College of Occupational and Preventive Medicine (AOCOPM) in 1989; and the American College of Preventive Medicine (ACPM) in 1986.

Dr. Saboe's civil aviation medical awards and honors include the 2017 CAMA Audie & Bernice Davis Award for outstanding sustained contributions providing exceptional service to his pilots and aircrew to assure longevity and safety in aviation, as exemplified by his astute early diagnosis of a serious retinal lesion that preserved an aviator's life and flying career. Military awards and honors include the USAF Air Training Command Flight Surgeon of the Year in 1982; the USAF Legion of Merit; six USAF Meritorious Service Medals; and the award of the USAF Aerial Achievement Medal and the USAF Commendation Medal. He received the USAF Recognition Ribbon, awarded in 1992, from the USAF Scientific Advisory Board for his Clinical Sciences Division being selected as the Top Science and Technology Activity in the USAF.

FAA AME Seminars

These are offered by the FAA AME Program Office.

Aug. 9-11, 2024	Indianapolis, IN	Refresher
Sept. 19-21, 2024	Jacksonville, FL	CAMA
Oct. 21-25, 2024	Oklahoma City, OK	Basic

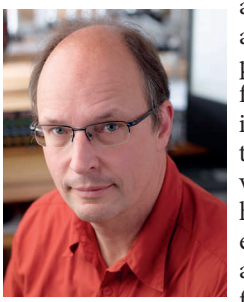
AsMA only takes registrations for the seminar held at our annual scientific meeting. For more info visit the FAA website.

Thomas J. and Margaret D. Tredici Award

Jeffery K. Hovis, O.D., Ph.D., FAAO, FAsMA

This award was established by Thomas J. Tredici and sponsored by an endowment fund managed by the Aerospace Medical Association Foundation. It is given for the most significant contribution to aerospace ophthalmology and vision science.

Jeffery Hovis, O.D., Ph.D., FAAO, FAsMA, receives the 2024 Thomas J. and Margaret D. Tredici Award for his expertise as an active researcher, peer reviewer, educator, and consultant in occupational vision performance, especially within human factors and aerospace medicine. His original research, test designs, and academic teaching about aviation-related color vision tasks and testing has established him at the pinnacle of those disciplines, earning him international recognition and endorsement as a course instructor for AsMA's special "Color Vision in Aviation" courses. He is a highly regarded consultant for numerous international aviation agencies and regulatory authorities and is an active peer reviewer for 20 professional journals. He is a prolific and accomplished scientific writer with over 71 major publications, 95 Technical Reports, 14 invited presentations, 16 refereed proceedings, 5 academic book chapters, and over 100 other abstracts, posters, presentations, and book reviews, including 12 AsMA posters and presentations. He has been recognized internationally for his academic excellence and teaching expertise.



Dr. Hovis received his Doctor of Optometry and Master of Science degrees from The Ohio State University and his Ph.D. degree in Physiological Optics from Indiana University before joining the University of Waterloo School of Optometry and Vision Science faculty, where he has been a member for over 35 years. He has an active research program in developing performance-related vision standards for law enforcement, aviation, maritime and railway industries. This research path started with his participation in a review of the Canadian aviation vision standards in the late 1980s and has remained his primary focus. He has collaborated with the FAA Civil Aerospace Medical Institute on studies involving hypoxia and color vision deficiencies and participated in several color vision panels at the annual AsMA meetings. Other opportunities for research projects in other transportation sections led to the development of a lantern test and a color vision test for dispatchers used by the Canadian railways. He was also involved in investigating visual performance and optical properties of ballistic protective eyewear for the Canada Land Forces. He is currently part of the team investigating the color vision requirements and testing protocols for Royal Canadian Air Force aircrew. He recently completed a term as the President of the Canadian National Committee of the Commission Internationale de l'Eclairage and Division 1 member on vision and color.

Dr. Hovis awards include the Bing Memorial Award, Auxiliary of the American Optometric Association Education Award, American Optometric Foundation Fellowship, two Awards for Outstanding Papers, two William E. Collins Awards from the Aerospace Human Factors Association, and selection as a Fellow of the Aerospace Medical Association (AsMA). He is also a

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Fellow of the American Academy of Optometry and a member of the Canadian Optometric Association, the International Color Vision Society, and the Association for Research in Vision and Ophthalmology.

Arnold D. Tuttle Award
Desmond Connolly, Ph.D., M.B.B.S.

Established in memory of Col. Arnold D. Tuttle, USAF, MC. Awarded annually for original research that has made the most significant contribution toward the solution of a challenging problem in aerospace medicine and which was published in Aerospace Medicine and Human Performance. *It is sponsored by KBR.*

Desmond M. Connolly, Ph.D., M.B.B.S., is the 2024 recipient of the Arnold D. Tuttle Award for his role as first author of an article on decompression sickness risk in parachutist dispatchers [Connolly DM, D'Oyly TJ, Harridge SDR, Smith TG, Lee VM. Decompression sickness risk in parachutist dispatchers exposed repeatedly to high altitude. Aerosp Med Hum Perform. 2023; 94(9):666–677]. In this article, the authors investigated residual risks to parachutist dispatchers due to occurrences of severe decompression sickness in military parachutist dispatchers at 25,000 ft, which prompted revision of exposure guidelines. The study used a hypobaric chamber to expose subjects to two profiles. They found five cases of limb pain and multiple minor "niggles" at 25,000 ft, but no DCS and few niggles at 22,000 ft. They concluded that parachutist dispatchers are at a high risk of DCS at 25,000 ft commensurate with their heavy level of exertion, but safe ascents are possible if turn-around time breathing air at ground level are brief.

Dr. Connolly served as a Royal Air Force medical officer from 1985 to 2001, completing training in general practice, three tours as Senior Medical Officer on various flying stations, and operational deployments to RAF Germany (1986–89), the Gulf War (1991), and the Balkans Crisis (1995). Since joining QinetiQ in 2001, he has been a Principal Medical Officer and Principal Investigator working with the Human Performance Group, and is the Technical Lead for Aircrew Systems altitude research.

He supports a wide range of aerospace medicine research activities, but particularly altitude and acceleration protection studies, respectively involving the hypobaric (low pressure) chamber and man-carrying centrifuge. He has special interest in visual performance at low light levels, specifically relating to the effect of hypoxia on twilight visual sensitivity and night vision, which was the subject of his Ph.D. at City University London. More recently, he has led UK work investigating the association between decompression stress and brain white matter injury, contributing to panels at international conferences and acting as UK technical representative to NATO Research Technology Group 274 investigating this phenomenon.

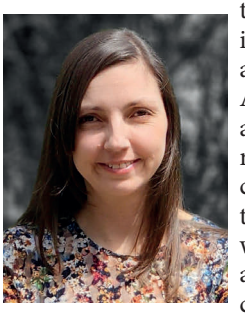
Dr. Connolly's published research includes numerous papers on visual performance, rapid decompression, decompression sickness, and high +Gz acceleration. In 2010 he was awarded the Aerospace Medical Association's Arnold D. Tuttle prize for the first time, for work investigating the effects of mild hypoxia on low contrast visual acuity in dim light. In 2011, he was awarded the Ellingson Prize of the Associate Fellows Group for a paper reporting the risk of decompression sickness and venous gas emboli formation at sustained high cabin altitude when breathing various oxygen mixtures. In 2015 he published a meta-analysis indicating that the prevalence of brain white matter injury is increased in healthy experienced divers and more recently has reported research detailing acute blood biomarker and brain magnetic resonance imaging stress responses to non-hypoxic hypobaric decompression.

Dr. Connolly is a Fellow of the Aerospace Medical Association, an Academician of the International Academy of Aviation and Space Medicine, and Member of the UK's Royal Aeronautical Association. He was appointed QinetiQ Fellow or senior scientist in 2014 and QinetiQ Senior Fellow on merit in 2019. Along the way he has contributed altitude protection chapters to the foremost U.S. and UK texts in aerospace medicine.

Julian E. Ward Memorial Award
Adriana Zuluaga Serna, M.D.

Established and sponsored by the Society of U.S. Air Force Flight Surgeons in memory of its first member to lose his life in an aircraft accident, and to honor all flight surgeons whose lives are lost in the pursuit of flying activities related to the practice of aerospace medicine. The award is given annually for superior performance and/or outstanding achievement in the art and science of aerospace medicine during residency training.

Adriana Zuluaga Serna, M.D., received the 2024 Julian E. Ward Memorial Award for her dedication, skills, and contributions to the art and science of Aerospace Medicine. Her commitment to excellence and passion for advancing the field of Aerospace Medicine have set her apart as an exceptional resident with international recognition. She has made significant contributions to the academic and scientific community in Aerospace Medicine within Colombia, ICAO's SAM Region, and through AMSRO, where she is the coordinator of the Iberoamerican AMSRO group. Her research shows innovation, critical thinking, and profound understanding of the challenges and advancements in the field. Her excellence led to an invitation from ICAO to present her work and serve as an expert in panels addressing fatigue and mental health in aviation populations. She has expanded outreach and collaboration with interest groups in the Latin American Region and has fostered a positive collaborative environment, enabling active participation in AMSRO's resources and opportunities. Overcoming a critical neurological condition during her residency training, she demonstrated remarkable leadership and inspiration, leading and inspiring her peers and professors with an unwavering commitment to her residency training. Her story not only highlights her resilience but also serves as a testament to her dedication and extraordinary contributions to the field.



After graduating from the program of Medicine at the University of Antioquia in Medellin, Colombia, in 2010, Dr. Zuluaga Serna did her Compulsory Social Service at the Hospital San Lorenzo de Supía, Caldas, where she had the opportunity to work as a general practitioner, providing health services to the

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community. Subsequently, she worked for several years as a support physician in Neurology and was a doctor in the neurophysiology unit and participated in epilepsy surgery and learning about abnormal movements at the Neurological Institute of Colombia. Then she worked as a support physician in the Epilepsy program at Neuromédica IPS and, finally, attended COVID-19 patients at the beginning of the pandemic. In 2021 she entered the Aerospace Medicine residency program at the National University of Colombia, rotating to different institutions related to the aeronautical environment. Additionally, she completed the Aviation Induction Seminar with the Colombian Army Military Education Centre, the Human Factors and Aviation Safety course with the Colombian Association of Aerospace Medicine (ACMAE), the Principles of Aeronautical and Space Medicine course with the University of Texas Medical Branch (UTMB), United States, and the Medicalised Air Transport course with Charter Aviation Services, Aeronautical Training Centre.

In the last 6 months of residency, Dr. Zuluaga Serna did her training at the Federal Aviation Administration (FAA) in Oklahoma City, OK, United States, where she had the opportunity to participate in the different courses that are taught there such as AME and post-accident survival, and also participated in the publication of an article for the FAA newsletter. She also had the opportunity to do a 2-week rotation at Virgin Galactic where she was able to work closely with the medical team of this company and get a closer look at space medicine focused on space tourism. During her residency she completed her thesis on fatigue in commercial airline pilots in Colombia and has participated as a speaker in seminars locally in her country with the Colombian Association of Aerospace Medicine and internationally with a presentation at the Iberoamerican panel at the AsMA meeting in New Orleans and at the seminar on aviation medicine with the South American Regional Office of the ICAO.

Dr. Zuluaga Serna is a member of the Aerospace Medicine Association (AsMA), a member of the official student and resident organisation of AsMA (AMSRO) and the Iberoamerican chapter of AMSRO. She was recently appointed to the position of South/Central America Regional Chair, which will allow her to continue contributing to the growth and development of Aerospace Medicine both regionally and globally.
She is currently in the process of starting her employment with the Colombian Civil Aeronautics and continues to work on an academic project with another of her colleagues from the Colombian Aerospace Medicine specialty and professors from the FAA.

Save These Dates!

AsMA's 95th Annual Scientific Meeting will be at the Hyatt Regency in Atlanta, GA, United States, **June 1–6, 2025**.
Related upcoming dates to remember:

- **Sept. 1, 2024:** Abstract submission will open on or around this date. Look for new procedures for panels!
- **Nov. 1, 2024:** Abstract submission will close at 11:59:59 PM EST. ***NO EXCEPTIONS!*** Submit early!
- **Nov. 20, 2024:** AsMA Council meeting.
- **Nov. 21–22, 2024:** AsMA Scientific Program Committee meeting to review abstracts.

We hope to see you at in Atlanta!

Fellows Class of 2024

The following members have achieved Fellows status: David Alexander; Talib Ali; Jennifer Bennicasa; Joseph Britton; Austin Chhoeu; Anna Clebone-Ruskin; Justin Flatt; Michelle Frieling; Robert Haddon; Duncan Hughes; Peter Hurly; Khalil Khalil; Amy Kreykes; Joseph LaVan; Greg Pinnell; Dan Roberts; Angus Rupert; Lisa Snyder; Moriah Thompson; Joelle Thorgrimson; Rawson Wood; and Tory Woodard.

The SMA JM Young Investigators Award

K. Jeffrey Myers, M.D.

The Space Medicine Association (SMA) Jeff Myers (JM) Young Investigators Award (YIA) is a competition intended for those making their first major efforts into Aerospace Medicine Research. To compete for this award, contestants must be making their first presentation of a scientific paper or poster at an AsMA meeting (excluding cases presented at Grand Rounds as a student resident) as well as be competing for the award the first time; they must appear as first author on the paper; and they must prepare and submit a manuscript for judging. The potential applicability of the findings to Space Medicine and the degree of involvement of the student in the project are major considerations. I would like to thank the members of the YIA committee: John Darwood, Lloyd Tripp, Cathy Dibiase, Jeff Jones, and Steve Guyton.

The finalists in this years' competition, selected from 74 potential contestants, are richly talented and diversified. (listed later in this article). The winner of the 2024 SMA JM YIA is Bridget Rinkel, M.S. Her paper is entitled: "G-Induced Loss of Consciousness Predictive Model Development". This study examined the use of machine learning models which could potentially lead to Artificial Intelligence (AI) assisted detection of altered level of consciousness with resulting interventions during flight to return or keep the aircraft (or operation) in stable flight or a safe mode. This will likely have future applications during critical flight or surface operations as we continue to expand our exploration and usage of space. Bridget just completed her Masters in Neuroscience and Biomedical Engineering from the Worcester Polytechnic Institute in Worcester, MA, United States. This project was the source for her Master's thesis, and was conducted by her as a civilian researcher at the Naval Air Warfare Center Aircraft Division in Patuxent, MD. Her future

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Bethany Shrivers, representing Bridget Rinkel, the winner of the Young Investigator's Award, stands between Jeff Myers on the left and Rahul Suresh, 2023-2024 SMA President, on the right.

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plans include further research into physiological monitoring for aircrew and bridging to brain/computer interactions.

The first runner up is 2nd LT Alicyn Grete, from the U.S. Military Academy at West Point, just now completing the Master of Public Health at Southampton, United Kingdom, and entering the Uniformed Services Medical school at Bethesda, MD. Her paper is titled "Self-Assessed Simulation-Based Training of External Fixation Skills for Mars Analogue Crew Members". She was indeed one of the analogue crewmembers in a remote location in Africa for this study! (Former YIA winner Julielynn Wong, M.D., was a mentor to her). The second runner up is Darshan Raval, MBBS, an Internal Medicine specialist completing an Infectious Disease Fellowship at the Mayo Clinic, Jacksonville, FL. His paper is "Bone Density Changes in Microgravity: A Systematic Review". This was performed in collaboration with the new Aerospace Medicine training program there. Honorable Mention went to Cong "Tony" Wang, MS (a third year med student and former U.S. Air Force medic), at the University of Arizona for his paper "Predicting Procedural Needs for Commercial Spaceflight Missions". Rounding out the top five was Tess Tarasen, BS (Aeronautics), a pilot from Embry-Riddle Aeronautical University. Her paper was titled: "In-Flight Ultraviolet A (UVA) Measurements from a Passenger Seat". She plans to become a medevac pilot and aspires to work for NASA after that adventure!

Although they are young and new to the field, these Young Investigators have demonstrated that they are not afraid of the challenges they face and are exploring new innovations to meet those challenges. We will definitely want to watch this truly amazing new generation of Aerospace Medicine scientists. As another great AsMA meeting draws to a close, former Young Investigators Becky Blue, M.D., and Natacha Chough, M.D., won the SMA Journal Award and the Klinker Medevac Award, respectively, as the new generation continues to make their mark on the challenges of space exploration. Remember, if you want to do more than just exist, you must have a dream. Dream well and make a difference.

SMA Award Winners

- SMA Jeffrey P. Sutton Scientific Achievement Award: Jonathan Clark, M.D., MPH
- SMA Lifetime Achievement Award: Eugenia Bopp, FAsMA

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Finalists for the Young Investigator Award from left to right: Darshan Raval; Bethany Shrivers, who was representing Bridget Rinkel, the winner; Jeff Myers; Tess Tarasen; and Alicyn Grete. Not pictured is Tony Wang.

Jonathan Clark, the winner of the SMA Jeffrey P. Sutton Scientific Achievement Award, stands between Rahul Suresh, left, 2023-2024 SMA President, and Jeffrey Sutton, right.

Rebecca Blue, left, who won both the SMA Journal Award and the SMA President's Achievement Award, stands with Rahul Suresh, right, the 2023-2024 SMA President.

Genie Bopp, left, the winner of the SMA Lifetime Achievement Award, stands with Rahul Suresh, right, 2023–2024 SMA President.

Diana Gabriella Hume Rivera, left, receives the SMA John B. Charles Research Scholarship from Rahul Suresh, right, 2023–2024 SMA President.

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- SMA Journal Publication Award: Rebecca S. Blue, M.D., MPH
- SMA President's Achievement Award: Rebecca S. Blue, M.D., MPH

SMA Scholarship Winners

- SMA International Scholarship: Milad Dulloo
- SMA John B. Charles Research Scholarship: Diana Gabriella Hume Rivera
- SMA Jeffrey R. Davis Medical & Graduate Education Endowed Scholarship: Daniel Ely Kaganov, M.D.
- Medical Resident & Post-Doctoral Scholarship, sponsored by KBR in honor of Robert Ellis: Christina Mackaill, M.B.Ch.B.
- SMA Undergraduate Scholarship: Aaliyah Gaffey

Aaliyah Gaffey, the winner of the SMA Undergraduate Scholarship, stand between Joe Dervay, left, 2023–2024 AsMA President, and Rahul Suresh, right, 2023–2024 SMA President.

Aerospace Physiology Society PiE Award

Partnership in Education (PiE): On Tuesday, May 7, members of the Aerospace Physiology Society (AsPS) visited the Whitney M. Young Magnet School in Chicago in conjunction with the Society's PiE Award. From let to right, LCDR Chris Gilig, TSgt Lauri Manual Owen, Airman Adam Dzekunskas, LT Jesse LeStronge, CDR Ilene Wheaton (Chairperson for PiE Award), LT Noelle Knight, LT Destiny Attewell, SSgt Andra Johnson, SSgt Mikayla Sieber, and Mr. Andrew Peterson, winner of the 2024 PiE Award.

Society of NASA Flight Surgeons Awards

Society of NASA Flight Surgeons Outstanding Student Award: Craig Kutz, M.D., Ph.D., right, receives the award from Shannon Moynihan, 2023–2024 President of the Society of NASA Flight Surgeons.

Dr. Thomas Marshburn, speaker, who discussed Flight Surgeon to Astronaut to CMO: What Might the Space Medical Future Look Like?

Honorary Society of NASA Flight Surgeons Member: Staff Seargent Brent Maney.

Society of NASA Flight Surgeons President's Citation: Michael Chandler.

Society of NASA Flight Surgeons Lovelace Award: Michelle Frieling.

A photo gallery from the 2024 Annual Scientific Meeting in Chicago, IL, United States, is available at: https://aeromed.smugmug.com/Meetings/2024-AsMA-Meeting-in-Chicago. Photos in that gallery are by Pam Day.

Space Surgery Association Future Researcher Award

The Space Surgery Association is a new AsMA Constituent Organization.

The Space Surgery Association Future Researcher Award is presented to a member of the Space Surgery Association who early in their career has demonstrated achievement, future potential, or interest in the area of Aerospace Medicine with an emphasis on surgical care in space. The recipient of the 2024 award was Ami Mange. She has a Bachelor of Science in Neuroscience from Johns Hopkins University (and a minor in Space Science and Engineering with a Space Medicine focus). At John Hopkins she worked on a project investigating the effects of space radiation on cognitive function in rodents. She then became a Research Assistant at a clinical space medicine lab at the University of Pennsylvania School of Medicine under Dr. David F. Dinges, where she investigated the effects of stress, isolation, and confinement on biomarkers and physiological health and emotional valence in astronaut surrogates. She is now at the Yale School of Medicine, where she will graduate with her M.D. in 2025 and is currently a 5th (research) year medical student engaged in clinical neurosurgery research. At Yale, she founded a chapter of the Aerospace Medicine Student & Resident Organization (AMSRO), which now boasts over 90 members. She has accumulated many awards, honors, and publications. Her long-term career interests and goals involve combining neurosurgery, neuroscience, and space medicine.

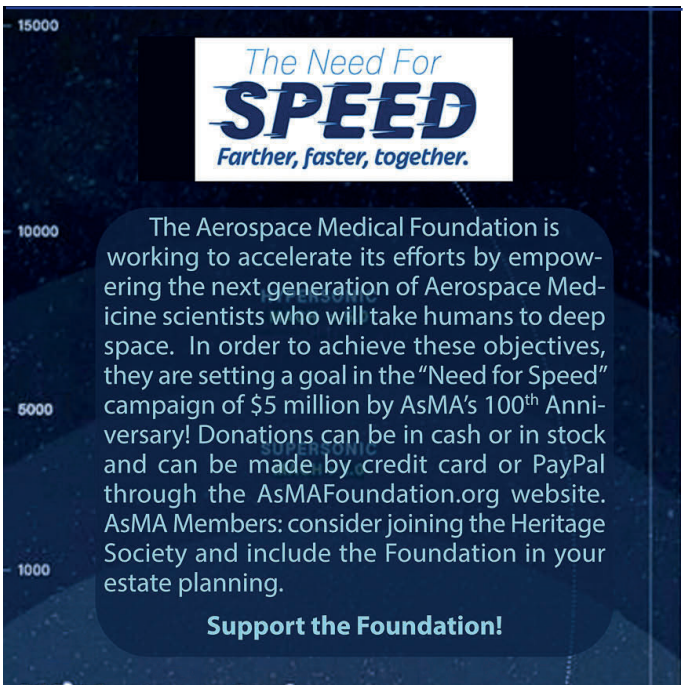
New Members

AsMA welcomed 17 new members in the past month.

- Baggott, Lee; Cleveland, OH, United States
- Basi, Neal; Conroe, TX, United States
- Bischak, Linde; Thornton, CO, United States
- Brown, Tony; Lyme, NH, United States
- Coulton, Charles; Lennox Head, New South Wales, Australia
- Dalton, Jacob; Hot Springs, AZ, United States
- George, Jane; Fishing Point, New South Wales, Australia
- Hodge, Jacob; Kansas City, KS, United States
- McLaughlin, Nicolas; Silver Spring, MD, United States
- Mombeyarara, Jones; Harare, Zimbabwe
- Nguyen, Vincent; Friendswood, TX, United States
- Peters, John; North Palm Beach, FL, United States
- Piiroinen, Heini; Helsinki, Finland
- Romero, Javier; Concon, Chile
- Snyder, Ian; Memphis, TN, United States
- Twardowska, Karolina; London, United Kingdom
- Wimberly, David; Tallahassee, FL, United States

AsMA also welcomed back two returning members:

- Gohdes, Jacob; Kansas City, MO, United States
- Stork, Benjamin; Fort Leavenworth, KS, United States



Obituary Listings

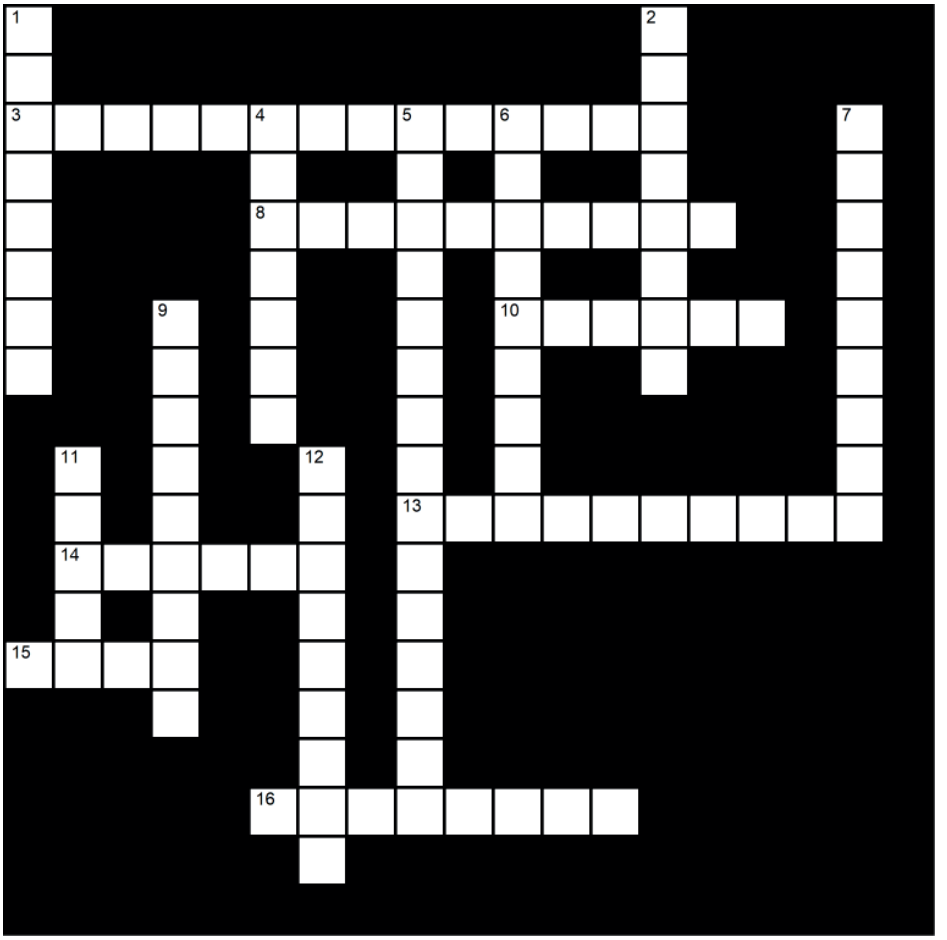
AsMA Staff were saddened to hear of the following deaths:

Elaine M. Brooks, wife of Christopher J. Brooks, a long-time member of AsMA, in early June. She was born in Rawtenstall, Lancashire, United Kingdom, in 1942. After learning to weave, she took a job at a local weaving shed and then moved to a position at a chemist's in Waterfoot. She married Dr. Brooks in 1965 and they moved to Canada in 1975, where she worked as a salesperson in Toronto and Winnipeg. She is survived by two sons, seven grandchildren, and her husband. An obituary can be found online at https://www.legacy.com/ca/obituaries/theglobeandmail/name/elaine-brooks-obituary?id=55348744.

Dr. Peter Blackie, in mid-February, who began his career practicing medicine in Newfoundland in 1966 after graduating from medical school. He served for over five decades in a variety of positions, including as a family doctor, working in the local Emergency Department, caring for the Canadian military at CFB Gander, helping air traffic controllers and pilots to maintain their licenses, and as Chief of Staff and then Medical Director at Paton Memorial Hospital. An obituary can be read online at https://www.staceysfuneralhome.ca/book-of-memories/5379319/Blackie-Dr-Peter/index.php.

Crossword

By Lt. Col. Srihari Iyer K, Flight Surgeon, Indian Army, and Dr. Sahana Srihari, Assistant Professor, Dermatology, Adesh Institute of Medical Sciences and Research, Bathinda, Punjab, India



ACROSS

3. Aircrew are encouraged to conduct a couple of moderate G turns of 10 seconds duration before starting high G maneuvers to take advantage of the short-term improvement in G tolerance due to _____. (14)
8. The laboratory determination of _____ ____ in the brain may provide confirmation of hypoxia after an aircraft accident. (6,4)
10. The commonest ejection-related injury is known to occur during the _____ phase of ejection. (6)
13. The top of the _____ is the coldest area of the Earth's atmosphere. (10)
14. 40°C is the _____ zone as per FITS. (6)
15. The ____ zone is due to the increase in the angular velocity. (4)
16. The outside-in aircraft attitude display is also called a moving ____ display. (8)

DOWN

1. The larger the _____ angle of the seat, the more risk for development of fractures of the vertebral column during an ejection. (8)
2. Time of Useful Consciousness is the interval that elapses between the reduction in oxygen tension of the _____ gas and the point at which there is a specified degree of impairment of performance. (8)
4. The _____ effect is a property of hemoglobin within which oxygenation of blood in the lungs displaces carbon dioxide from hemoglobin, increasing the removal of carbon dioxide. (7)
5. Crash test dummies are also called _____ test devices. (15)
6. Acceleration stress _____ serum cortisol. (9)
7. _____ Detonating Cord is an explosive material lined on the internal surface of the canopy. (9)
9. Bardin and Lamberston introduced the concept of Unit _____ Toxic Dose in HBOT. (9)
11. _____ volume increases as a response to pressure breathing. (5)
12. The 'gravitational credit card' of flight is seen in the _____ flight maneuver. (9)

The solution can be found on p. N59.

News of Corporate Members

Leidos Builds New Operating System

In response to a U.S. federal government customer request, Leidos has built and fielded a modernized system to improve business processes and provide new solutions for supply chain management and personnel tracking. This new system benefits the customer by providing increased resiliency and availability of the system supporting their core business processes, and a cloud-based platform for the rapid development and integration of new solutions. Additionally, the system has been awarded as a federal health technology program driving innovation and results across multiple key government agencies. Since the release of the system, Leidos has continued their responsibilities as the prime contractor for the effort.

—Please visit https://www.leidos.com/insights/leidos-builds-new-common-operating-picture-disaster-and-health-emergency-missions to read more.

Mayo Clinic Publishes Research on Heart Health and Racism

Researchers from Mayo Clinic and the University of Minnesota have published a paper in the *Journal of Clinical and Translational Science* which provides a new framework describing how racism affects heart health among people of color in Minnesota. The researchers, who are part of the Center for Chronic Disease Reduction and Equity Promotion Across Minnesota (C2DREAM), are focused on reversing these cardiovascular health disparities in collaboration with Minnesota community leaders and community health organizations. Historically, research on racism and health has focused on interpersonal racism. The C2DREAM framework takes a broader view, examining how oppressive systems of power, structural and institutional racism, and interpersonal racism work together to influence the social determinants of health and health outcomes. People who experience chronic racism may be affected by factors such as intergenerational trauma, reduced access to healthcare, differential treatment in healthcare settings, and psychological distress. All these things negatively affect heart health and can have a cumulative effect over the course of a person's life.

—Please visit https://newsnetwork.mayoclinic.org/discussion/reversing-racisms-toll-on-heart-health/ to read more.

MedAire Services Offered by RightJet

RightJet, a provider of private jet charters and aviation services, announced the integration of the comprehensive MedAire360 solution on its Gulfstream G650 aircraft. MedAire360 represents a holistic approach to aviation safety and risk management, combining 35 years of expertise in medical, security, and operational support for the aviation industry. It offers 24/7 global assistance, providing on-demand expert support from a vast network of medical and security experts anytime, anywhere. The solution facilitates proactive risk mitigation through pre-trip safety and medical risk assessments and real-time travel safety alerts, ensuring crew are well-informed of potential risks. Additionally, the MedAire Aviation App aids in keeping crew connected to advice and assistance while travelling and AI-guided tools to assess passenger health concerns in flight.

—Please visit https://www.medaire.com/about/news-centre/press-release-detail/2024/06/13/rightjet-offers-clients-enhanced-health-and-safety-support-with-medaire360-on-its-gulfstream to read more.

Axiom Space Completes First Artemis III Integrated Test

Axiom Space recently completed the first integrated testing in support of NASA's Artemis campaign, which is set to return astronauts to the Moon by September 2026. This testing brought Artemis III partners – NASA, SpaceX, and Axiom Space – together to conduct a pressurized simulation, the first test of its kind since the Apollo era. NASA and its partners Axiom Space, designer of the Axiom Extravehicular Mobility Unit (AxEMU) and SpaceX, developer of Starship, the Human Landing System (HLS) for Artemis III, completed a successful, coordinated test using development hardware for SpaceX's Starship in Hawthorne, CA. This was a significant milestone to collect information on how the spacesuit, the lander, and the human element will work together during the Artemis III mission. In less than two years, Axiom Space has made substantial progress in suit design and testing. The suit design is beyond the preliminary design review point with NASA and will enter the critical design review phase later this year. Just a few weeks before this integrated test, Axiom Space completed a successful trial at NASA's Neutral Buoyancy Laboratory (NBL) with an unoccupied, weighted

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PharmaFlight: One of PharmaFlight's employees, Dr. Botond Szücs, their head biologist, has been elected a corresponding member of the International Academy of Aviation and Space Medicine (IAASM). IAASM's Council meets monthly and they organize the annual International Congress of Aviation and Space Medicine (ICASM). *Visit https://www.pharmaflight.hu/munkatarsunk-a-szakma-csucsan to read more.*

InoMedic: InoMedic attended the DOE's Office of Small and Disadvantaged Business Utilization Small Business Forum & Expo in late June in Minneapolis. Their CEO, Cynthia Gross, was a guest speaker on the Small Business Owners' Panel. *Please visit https://www.facebook.com/IHAMedical/ for the Facebook post and photos.*

Martin-Baker: Martin-Baker recently celebrated the 75th anniversary of their first ejection seat to save a pilot's life. In 1949, a test pilot named Jo Lancaster's life was saved by Martin-Baker's pre-mk1 ejection seat. Since then, Martin-Baker ejection seats have saved the lives of 7722 aircrew. *Please visit https://martin-baker.com/news_and_events/75-years-first-ejection/ to read more and see the photos.*

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From "SMA JM YIA", p. N54

spacesuit to accurately simulate the lunar environment, where gravitational forces are 1/6th of Earth's.

—Please visit https://www.axiomspace.com/news/first-artemis-iii-integrated-test-complete to read more.

Norwich University Visited by Austrian Ambassador

In late June, Norwich University had the honor of welcoming the Austrian Ambassador, Dr. Petra Schneebauer, along with the entire Austrian Delegation. They conducted a meeting with senior members of the University's administration, strengthening the long-standing relationship between Norwich and Austria. After the meeting, Ambassador Schneebauer was given a personalized tour of the University's campus, followed by a luncheon at the Sullivan Museum. Ambassador Schneebauer concluded the event with insightful remarks at the luncheon attended by members of the Norwich University administration, faculty, and students. Last January, leaders of the Vermont National Guard visited Austria, where an agreement between Norwich University and Theresian Military Academy for an educational and cultural cadet exchange program was agreed upon.

—Please visit www.norwich.edu/news/dr-petra-schneebauer-austrian-ambassador-united-states-visits-norwich-university to read more.

David Clark Co. Space Suit Worn on Flight Test

In early June, two NASA astronauts wore David Clark Company's newest space suit into orbit. Launched aboard Boeing's Starliner spacecraft at 10:52 a.m. EDT, as part of Crew Flight Test, the two crewmembers wore their Salus suits throughout launch operations, beginning their journey to the International Space Station. They will wear the suits for docking and reentry operations as they complete this certification flight of the vehicle and the suit. The S1100 Salus is the lightest weight space suit ever flown and does not require the complexity, mass, and bulk associated with liquid cooling. Integral air-cooling features kept crewmembers cool as they waited on the pad before launch. Innovative design features have been incorporated into the suit. It has a wide field of view, high mobility elbows and shoulders, and minimal bulk, which ensures crewmembers have maximum capability for both nominal and contingency operations.

—Please visit https://www.davidclarkcompany.com/news.php to read more.

KBR Receives Award for Humanitarian Accomplishments

KBR was honored to receive the Tier 1 Vanguard Global Impact Award from the International Stability Operations Association (ISOA). ISOA is an organization that engages both government and private sectors in support of stability and peace throughout the world. ISOA selected KBR for the Vanguard award based on KBR's humanitarian support of displaced Afghans and the company's support of stability efforts in Europe after Russia's invasion of Ukraine. Under Operation Allies Welcome in 2021–2022, KBR rapidly developed vital infrastructure across nine sites in the United States and Europe to support displaced Afghans. In early 2022 when Russia invaded Ukraine, KBR provided a crisis action planning team in Kaiserslautern, Germany, to support the U.S. Army under the Logistics Civil Augmentation Program (LOGCAP). KBR continues to work closely with the U.S. government and host nations to provide full-service life support for stability efforts across Europe.

—Please visit https://www.kbr.com/en/insights-news/stories/kbr-receives-isoa-vanguard-global-impact-award-humanitarian-and-stability-accomplishments to read more.

AOPA Safety Institute Names New Leader

The Aircraft Owners and Pilots Association's (AOPA's) Air Safety Institute has named Mike Ginter, a general aviation advocate and retired U.S. Navy pilot, to lead them. AOPA's Air Safety Institute has delivered information and education to pilots for more than 70 years. Prior to this appointment, Ginter served as AOPA's vice president of airports and state advocacy, leading efforts to protect airports, resolving more than 700 airport issues on behalf of AOPA members, and bringing 1000 new volunteers into the AOPA Airport Support Network. He also recently led the effort to plan and execute the successful National Celebration of General Aviation Flyover of Washington, DC.

—Please visit https://www.aopa.org/news-and-media/all-news/2024/june/18/new-leader-for-air-safety-institute to read more.

ALPA's President Delivers Remarks on Airbus

In a speech before the International Aviation Club of Washington, Capt. Jason Ambrosi, president of the Air Line Pilots Association, Int'l (ALPA), highlighted the safety risks of operating commercial airliners without at least two pilots on the flight deck, as Airbus is currently pursuing. Ambrosi also unveiled an ALPA white paper that highlights the well-established fact that pilots cannot be replaced through advances in technology and outlines the benefits of having at least two pilots on the flight deck. In a recent poll commissioned by ALPA of the flying public, 79% of respondents said they would feel less safe flying on remotely operated planes, and 73% said they would never feel comfortable flying without two pilots on the flight deck. Reduced-crew operations cause higher workloads for the remaining pilot, risks the incapacitation of the single pilot, and reduces the safety and security of commercial air transportation to an unacceptable level.

—Please visit https://www.alpa.org/news-and-events/news-room/2024-06-25-airbus-plan-to-reduce-pilots-flight-deck-gamble-with-safety to read more.

Crossword Solution