



Ever Upward: July 2023

2023 Award Winners of the Aerospace Medical Association

Honors Night Ceremonies of the 93rd Annual Scientific Meeting of the Aerospace Medical Association were held May 25, 2023, at the Sheraton New Orleans Hotel, New Orleans, LA. Presented were 18 awards for outstanding contributions in aerospace medicine and human performance (the Adams, Clark, Longacre, and Tredici Awards were not presented). The presentations were made by Dr. Susan Northrup, 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

**Nicholas D. C. Green, OBE, MBBS, Ph.D.,
D.Av.Med., FRAeS, FAsMA, RAF**

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.

Dr. Green is the 2023 recipient of the Louis H. Bauer Founders Award for his career in aerospace medicine working to support flight safety and performance for over 30 years. This includes testing aircraft life support



systems, undertaking long duration acceleration research and training, and helping to establish the UK specialty of Aviation and Space Medicine. This lifetime of commitment to the field of aerospace medicine, internationally and his leading role in the United Kingdom, was recognized by the Queen in 2020 with award of the Order of the British Empire (OBE).

Dr. Green is currently a serving medical officer in the UK Royal Air Force (RAF) at the Centre of Aviation Medicine where he works as a consultant in aviation medicine and Officer Commanding, Aerospace Physiology Section. He is responsible for providing expert advice on a wide range of aerospace medicine challenges, including sustained acceleration, hypobaric, and aircraft life support systems. During his career, he has been involved with the development and certification of the life support equipment for a number of air platforms including Eurofighter Typhoon. He led the subject matter expert support for the new human centrifuge capability which was introduced into the UK in 2018, justifying the requirement, developing the equipment specification, and supporting the acceptance and test program. Subsequently, he developed novel scenario-based pilot high G training currently used on the device.

Dr. Green graduated with an MBBS in medicine from Charing Cross and Westminster Medical School, London, in 1988, where he also gained an intercalated B.Sc. in physiology. It was the study of physiology at medical school that kindled his interest in aerospace medicine and led him to apply to join the Royal Air Force in 1990. He specialized in aerospace medicine and was posted to the (then) RAF Institute of Aviation Medicine at Farnborough in 1991, gaining a Diplo-

ma in Aviation Medicine in 1993. Following a 4-year interval in hospital medicine, he moved to the newly formed RAF Centre of Aviation Medicine at Henlow in 2001. He served in the First Gulf War in 1991 and also as Coalition Validating Flight Surgeon at Al Udeid, Qatar, in 2014. As a high G researcher, he has spent many hours at the business end of the human centrifuge as a subject, completing a Ph.D. in the effects of high G on blood flow to the arms and high G arm pain in 2007. He is also fortunate in having experienced high G flight in military aircraft as a research participant on numerous occasions. He has published numerous technical reports and peer reviewed articles; in addition to contributing to three editions of Ernsting's *Aviation Medicine*, he is also the lead editor of the *Handbook in Aviation and Space Medicine*.

Dr. Green has taught for the King's College, London, Diploma in Aerospace Medicine Course (and its predecessors) for the last 30 years and served as Whittingham Professor of Aviation Medicine from 2016–2020. He holds a Visiting Senior Lecturer appointment at King's College, London, where he regularly teaches undergraduate and postgraduate scientists and doctors. He also acts as an Examiner for the Faculty of Occupational Medicine Diploma in Aviation Medicine Examination. He has supervised a number of Ph.D. students and acted as Educational Supervisor to trainees in UK's Aviation and Space Medicine specialty. With the introduction of aircrew high G training in the early 2000s in the UK, he conducted all RAF centrifuge training personally in the first decade, numbering many hundreds of pilots.

Dr. Green is currently Vice-chair of the Aviation and Space Medicine Specialty Advisory Committee of the UK Joint Royal Colleges of Physicians Training Board. He is also a Trustee of the Stewart Memorial Trust. He is a Past Chair of the Aerospace Medicine Group of the Royal Aeronautical Society, where he co-ordinated the UK Annual Aerospace Medicine Symposium for a number of years. He has been a member of a number of NATO Technical Teams and has authored numerous STANAG and AFIC Air Standard revisions. He has also appeared as an expert witness at England's Central Criminal Court.

A keen supporter of the Aerospace Medical Association, Dr. Green attended his first Annual Scientific Meeting in 1994 and has attended and presented at the majority of meetings since then. He was elected as an AsMA Fellow in 2008 and served as a Member-at-Large on Council from 2014–2019. He also served on the AsMA Executive Committee from 2017–2019. He has supported the Scientific Program-

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ming Committee for many years and was Chair of the Committee in 2019–2020, unfortunately for 'the meeting that never was' due to COVID. He remains a long time journal reviewer.

Dr. Green was awarded the Order of the British Empire in 2020. He is a recipient of the Gordon P. Olley Prize and a Bronze Team Award from the Royal Aeronautical Society and was the winner of the Aerospace Medical Association Eric Liljencrantz Award for contribution to work in sustained acceleration in 2014.

BOOTHBY-EDWARDS AWARD

**Simon May, B.Sc., M.B.Ch.B. (Hons.),
M.Av.Med., MRCPC, FACAsM, Dip.Occ.Med.**

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.) Sponsored by Harvey W. Watt and Company.

Dr. Simon May was the 2023 winner of the Boothby-Edwards Award for his substantial and lasting global contributions to the practice of airline medicine and the health promotion of

airline pilots. His efforts at 3 airlines have led to the establishment, certification and sustainable development of airline medical departments. Notably, his efforts have seen airline-wide adoption of telemedicine services, and expanded health support to thousands of airline pilots and cabin crews.

Dr. May is currently Vice President Medical Services for Emirates Airline based in Dubai. He earned

his B.Sc. in Medical Science at the University of St. Andrews and his M.B.Ch.B.(Hons.) from Manchester University. His Master in Aviation Medicine and Postgraduate Diploma in Occupational Medicine were earned at Otago University. He also holds an Australian Certificate in Civil Aviation Medicine from Monash University and membership in the Royal College of Paediatrics and Child Health, Royal Australasian College of General Practitioners, and the Australasian College of Aerospace Medicine.

Dr. May commenced his airline medicine career with Qantas Airways in 2010, where he reviewed all areas of the service to ensure the long-term survival of a department that had been shrinking for many years. In 2012 he became the first in-house doctor at Virgin Australia, where he drove the establishment of a fully functional in-house medical department over 5 years. He then became Vice President of Aero-medical Services at Qatar Airways in 2016, where he was Head of Aviation Medicine for the airline group. Notably, during that time, he developed physician and nurse aviation



medicine training courses in Qatar for airline medical staff and other health professionals in Qatar, a first for that nation. He also took the position of Director of Flightcare Global in 2018, a position he still holds. From 2019–2021, he was Senior Lecturer in Aviation Medicine and Unit Coordinator at Monash University in Melbourne, Australia. He was also appointed Principal Medical Officer, Civil Aviation Safety Authority, Sydney, from 2019–2020. In 2020, he became a part-time general Practitioner at Wollondilly Medical Center, New South Wales, Australia, until 2022, when he took his present position.

Dr. May was the airline lead for the Civil Aviation Safety Authority of Australia drug and alcohol program, was an inaugural member of the HIMS Australia Advisory Group, and provided specialist advice to airline management on numerous health threats (Ebola, Zika and general pandemic planning). As an aerospace medicine specialist, he also provided subject matter expertise to the Qatar government, Qatar Executive (business jet operator), and the Qatari Royal Flight. He is a Fellow of the Australasian College of Aerospace Medicine, a Vice-President of the International Airline Medical Association, a member of the IATA Medical Advisory Group, a member of the Australasian Medical Review Officers Association, and a member of the Aerospace Medical Association.

JOHN ERNSTING AWARD

Melchor Antuñano, M.D., M.S.

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.

Melchor Antuñano, M.D., M.S., received the 2023 John Ernsting Award for over 35 years of exceptional performance in the education, development, and administration of aerospace

medicine and related specialties. As Director of the FAA's Civil Aerospace Medical Institute, he provides executive direction to five Division Managers responsible for the administration of national and international aerospace medicine, occupational health, human factors, and engineering programs. He believes strongly in education and is, in effect, the world's ambassador of aviation safety.



Dr. Antuñano was born in Mexico City and is a graduate of the National Autonomous University of Mexico School of Medicine. He completed the Residency Program in Aerospace Medicine at Wright State University in Dayton, OH, USA. He was a post-doctoral research associate with the U.S. National Research Council of the National Academy of Sciences at the U.S. Air Force School of Aerospace Medicine in San Antonio, TX, USA. He is the Director of the Federal Aviation Administration (FAA) Civil Aerospace Medical Institute (CAMI) in Oklahoma City, OK, USA. He is a faculty member at the University of Texas Medical Branch in Galve-

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ston, TX, USA, and the National University of Colombia School of Medicine. He is a former faculty member at Wright State University School of Medicine. He has experience as private pilot, parachutist, and scuba diver.

Dr. Antuñano is credited with 991 professional presentations and invited lectures at national and international conferences in aerospace medicine in 42 countries, and with 65 scientific publications covering a variety of aerospace medicine topics. He is Past President of the International Academy of Aviation and Space Medicine, the Aerospace Medical Association, the Space Medicine Association, and the Ibero-American Association of Aerospace Medicine. He is a Fellow of the Aerospace Medical Association and the Aerospace Human Factors Association and a member of the International Academy of Astronautics. He is Honorary Member of the Austrian, Brazilian, Colombian, Greek, Mexican, Peruvian, Slovenian, and Turkish Societies of Aviation/Aerospace Medicine.

Dr. Antuñano has received 85 awards and recognitions for his academic, administrative, and research achievements, including: DOT Secretary's Award for Meritorious Achievement: Silver Medal granted by the Secretary of the U.S. Department of Transportation (DOT); the Jay Pardee AVS Champion of Safety Award granted by the FAA Office of Aviation Safety for significant contributions to the promotion of global aviation safety; the Louis H. Bauer Founders Award granted by the Aerospace Medical Association for the most significant contribution in aerospace medicine; the Won Chuel Kay Award granted by the Aerospace Medical Association for outstanding contributions to international aerospace medicine; and the Eric Liljencrantz Award granted by the Aerospace Medical Association for excellence as an educator in aerospace medicine.

KENT K. GILLINGHAM AWARD **Richard V. Folga, CAsP, FAsMA, FAsHFA**

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.

Capt. (Ret.) Richard Folga was the 2023 recipient of the Kent K. Gillingham Award for his development of a Spatial Disorientation (SD) countermeasures research capability on the U.S. Navy's Disorientation Research Device (DRD). He created the team and met the challenge to provide a human-in-the-loop SD research flight simulator on a unique platform as the first operational use of the DRD. By this action, and the subsequent completion of two more successful research studies, the vision that the DRD would become the centerpiece of a world-class SD research facility was realized.

Capt. (Ret.) Folga is currently a contractor with Leidos and is NAMRU-Dayton's Naval Aerospace Medical Research Laboratory (NAMRL) Aerospace Medical Research Device Technical Coordinator. He is a former Naval Aerospace and Operational Physiologist and served as the department head of NAMRL's Engineering and Technical Support Services and



Human Research Device Program Manager, including the Disorientation Research Device, or the Kraken™, as it is commonly known. Additionally, he served as the Bureau of Medicine and Surgery's appointed Navy Air and Space Interoperability Council Spatial Disorientation Subject Matter Expert and on the Joint Strike Fighter Physiologic Episode Team. Prior to his current role, he was

Intern and Assistant Department Head at Aviation Survival Training Center (ASTC) Miramar, Aeromedical Safety Officer (AMSO) at Marine Aircraft Group 16, Marine Corps Air Station (MCAS) Miramar; AMSO and Night Imaging and Threat Evaluation Lab Program Manager, Marine Aviation Weapons and Tactics Squadron One, MCAS Yuma, AZ; Director, Human Performance and Training Technology, Naval Survival Training Institute in Pensacola, FL; and Director, ASTC Whidbey Island.

Capt. (Ret.) Folga is board certified in aerospace physiology and served as Chair of the Aerospace Medical Association Exam committee (2007–2009) and overall Chair of the Board from 2009–2010. He was made an AsMA Fellow (class of 2009) and Aerospace Human Factors Association Fellow (class of 2019) and elected as full member of the International Academy of Aviation and Space Medicine in 2020. He served as the 2012–2013 President of the Society of U.S. Naval Aerospace Physiologists and the President of the Aerospace Physiology Society (AsPS) from 2014–2015.

Capt. (Ret.) Folga's awards include the 2001 Naval Aerospace Physiology Program Aerospace Physiologist of the Year, the 2007 Aerospace Physiology Society's (AsPS's) Wiley Post Award for operational aerospace physiology, the 2010 SAFE Team Achievement award for his work in introducing the Reduced Oxygen Breathing Device to the fleet, the 2013 AsMA Walter and Sylvia Goldenrath Award for excellence in aerospace physiology, the 2016 AsPS Paul Bert Award for physiological research, the 2016 SAFE Wright Brothers Chapter outstanding Program Manager, and the 2022 AsPS Fred Hitchcock award for career contributions to the field of aerospace physiology. He has over 22 years and 1150 hours of military flight experience in 24 airframes, including over 200 hours of night vision goggle flight time in 10 different platforms.

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WALTER AND SYLVIA GOLDENRATH AWARD

Daniel A. Roberts, Col., U.S. Air Force

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.

Col. Daniel Roberts is the recipient of the 2023 Walter and Sylvia Goldenrath Award for being a well-recognized aerospace physiology expert and mentor. He has served in multiple human performance, human factors, safety, aerospace physiology, and command roles during the past 21 years. He served as Executive Secretary for a Department of Defense Task Force, leading the first-ever Strategic Plan for accident reduction. He has led a Headquarters Air Force level re-engineering for an entire career field, co-championed by the Air Force Surgeon General and the Air Force Director of Operations, Plans, and Requirements. He single-handedly led the manpower validation of 411 aerospace physiology personnel and drafted its career field development guide to transition the Aerospace Physiology enterprise program to the line of the Air Force. Dan is further credited with conducting critical aeromedical research into simulator based spatial disorientation/task management training, human factors in fighter aircraft, extensively worked with the use of Reduced Oxygen Breathing Devices and directed the sole Night Vision Goggle Advanced Instructor Course for the Air Force.



Col. Daniel A. "JD" Roberts is the Commander of the 97th Medical Group, Altus AFB, OK. In this role, he is responsible for providing healthcare to more than 7,600 Department of Defense beneficiaries. He entered the Air Force by ROTC in 1997 and his primary background is in operational aerospace physiology and safety. He has deployed in support of numerous operational exercises, as well as support of combat operations, including Operations Northern Watch, Southern Watch, Enduring Freedom, and Iraqi Freedom. As a human factors consultant, he has participated on multiple Safety, Accident, and Friendly Fire Investigation Boards.

Col. Roberts earned a B.S. in Human Physiology in 1997 from Middle Tennessee State University, Murfreesboro, TN. He graduated with honors from the Aerospace Physiology Course at Brooks AFB, TX, in 1999 and Squadron Officer School, In-Residence, at Maxwell AFB, AL, in 2004. He earned an M.S. in Human Physiology at the Air Force Institute of Technology, Middle Tennessee State University, in 2007. He completed Air Command and Staff College in 2008, Air War College in 2013, the Joint Senior Medical Leader Course in 2015, and the Combined/Joint Air and Space Operations Senior Staff Course in 2017.

Col. Roberts commanded the 325th Medical Support Squadron and served as the Chief, Aviation Management Branch at Headquarters Pacific Air Forces, where he was responsible for the organization, training, and equipment of PACAF combat forces aviation support programs. Prior to his current duties, Colonel Roberts served as the Chief of the Aircrew

Performance Division, Directorate of Training and Readiness, Headquarters U.S. Air Force. In this role he also served as the Career Field Manager for Aerospace Physiology and was responsible for the functional oversight of 400 aerospace physiology personnel, policy, and requirements.

Col. Roberts' awards include the U.S. Air Force Achievement Medal with 2 oak leaf clusters, the U.S. Air Force Commendation Medal with 2 oak leaf clusters, the Aerial Achievement Medal, the Meritorious Service Medal with six oak leaf clusters, and the Legion of Merit. He is a Fellow in the Royal Aeronautical Society and an Associate Fellow of the Aerospace Medical Association.

JOHN D. HASTINGS AWARD

Roger R. Hesselbrock, B.Sc., M.D., Col.(Ret.), USAF

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.

Roger R. Hesselbrock received the first John D. Hastings Award for his outstanding contributions to aerospace neurology and cognitive science for the advancement of cognitive performance risk assessment related to flight operations throughout his aerospace neurology career. As co-founder and President of the International Aerospace Neuroscience Consortium, inspired by the substantial legacy that the late Dr. Hastings left to this field, an initiative regarding cognitive assessment in aviators resulted with a goal to identify best practices and develop evidence-based protocols, something Dr. Hesselbrock continues to work on.

Dr. Hesselbrock earned a B.Sc. in Chemistry from the University of Dallas in Dallas, TX, in 1977 and his M.D. from the University of Texas Medical Branch (UTMB) in Galveston, TX, in 1981. He was directly commissioned into the U.S. Air Force Medical Service after acceptance into the Health Professions Scholarship Program in March 1977. He served an Internal Medicine internship from 1981-1982 and a Neurology residency from 1982-1985 at the University of Cincinnati Medical Center in Cincinnati, OH. He completed the U.S. Air Force Aerospace Medicine Primary Course in 1992. He served in a variety of positions and retired from active duty military service in September 2017 with over 40 years of commissioned service.

Dr. Hesselbrock is an Aeromedical Neurology Consultant attached to the Medical Appeals Branch of the FAA Aviation Safety section. He is responsible for review and recommendations of aviators with disqualifying neurological conditions



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for their potential medical certification. He provides input to aeromedical standard policy guidance and assists with other Agency-related activities. He provides education on aeromedical neurology topics to aviation medical examiners, aerospace medicine residents, and other groups. His awards include the Air Force Expeditionary Service Ribbon, Global War on Terrorism Expeditionary Medal, Air Force Achievement Medal, Air Force Commendation Medal, Aerial Achievement Medal, Meritorious Service Medal with four oak leaf clusters, Bronze Star Medal and the Legion of Merit.

Dr. Hesselbrock is board-certified in Adult Neurology by the American Board of Psychiatry and Neurology, a Fellow of the American Academy of Neurology, and a Fellow of the Aerospace Medical Association. He served as AF/SG Aerospace Neurology Consultant and neurology medical malpractice case consultant for the Air Force Medical Operations Agency, and has reviewed neurology-related articles for the journals *Neurology*, *Aerospace Medicine* and *Human Performance*, and *Military Medicine*. His career has included experience on active duty, Air Force Reserves, and work with the Department of Veterans Affairs.

WON CHUEL KAY AWARD

Ansa Jordaan, M.D.

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.

Ansa Jordaan was the 2023 recipient of the Won Chuel Kay Award for exceptional international aerospace medicine leadership. Particularly noteworthy is her worldwide leadership



throughout the COVID-19 pandemic, working with the World Health Organization (WHO), member states of the International Civil Aviation Organization (ICAO), and ICAO's Council Aviation Recovery Taskforce (CART), and being chair of Collaborative Arrangement for the Prevention and Management of Public Health Events in Civil Aviation (CAPSCA).

Dr. Jordaan qualified as a medical

doctor in 1989, obtained a post-graduate degree in Aerospace Medicine in 1999 and a post-graduate qualification in Occupational Health and Medicine in 2009. She started her career in the South African Military Health Services, working in the emergency department of the main Military Hospital and then transferring to the Institute for Aviation Medicine. She left the military services after 9 years and, after a short period in private practice, joined the South African Civil Aviation Authority, where she established the Aviation Medicine Department. After 4.5 years she founded an aeromedical consultancy providing services to the aviation medical industry for a period of 4 years, following which she was requested to join South African Airways (SAA) as Medical Director re-

sponsible for aviation medical management, occupational health, and passenger medical care.

Upon leaving SAA after 4 years, Dr. Jordaan briefly left the aviation field to become the Occupational Health Project Director for Transnet Freight Rail for a period of 10 months. She returned to aviation subsequently, joining International SOS as the Medical Director of Occupational Health, responsible for management of remote clinic services, occupational health, public health, and air medical emergency response evacuation procedures in sub-Saharan Africa, where she remained for 3 years before joining ICAO.

Since 2015, she has been the Chief of the Aviation Medicine Section at ICAO, responsible for aviation medical standards and the ICAO CAPSCA (Collaborative Arrangement for the Prevention and Management of Public Health Events in Civil Aviation) programme. She is currently a member of the Aerospace Medicine Association, the International Academy of Aviation and Space Medicine, the Airlines Medical Directors Association and the South African Society for Aerospace and Environmental Medicine.

JOE KERWIN AWARD

Ashot Sargsyan, M.D., RDMS, RVT

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.

Ashot Sargsyan, M.D., RDMS, RVT, was the 2023 winner of the Joe Kerwin Award for his unrivaled contributions to Space Medicine. He has been at the cutting edge of discovery



and resolution of some of the most difficult spaceflight medical issues, including aspects of cardiovascular response to weightlessness, neuro-ophthalmic and neurovascular findings, peripheral venous anatomy and function, and venous stasis and thrombosis, all of which contain serious implications to crew health and performance. He is arguably the world's leading expert on spaceflight medical imagery.

Dr. Sargsyan started his medical career in 1982 in Armenia as an internist, then specialized to practice and teach radiology for over 15 years. He joined the U.S. space program in 1996 to work as a physician coordinator of the emerging multilateral medical system of ISS. In parallel, his radiology expertise was instrumental in implementing advanced imaging applications in crew medical support and human research. He currently works with KBR Government Solutions in Houston, TX, USA, and supports the NASA Johnson Space Center Human Health and Performance contract. He has been a formidable force in the fields of space physiology and medicine for over three decades, and the NASA community has continually thrown its most difficult and pressing problems his way.

Dr. Sargsyan was pivotal in forming U.S./Russian cooperative science as part of the Shuttle-Mir program and was un-

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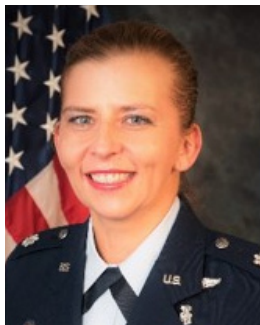
deniably critical in the formation and continued operation of the multinational medical organizations in support of the International Space Station program. He built and has maintained these relationships through very challenging technical and geopolitical times. He has often been referred to as the glue holding the multilateral medical groups together. In addition to his organizational and states man skills, he pioneered new steps in the use of ultrasound for medical diagnosis and investigation, involving the technology and hardware as well as remote guidance techniques for onboard astronauts. He is among the first to be called and engaged as new spaceflight physiology challenges are identified, and his efforts and expertise have helped to quickly characterize these findings and distribute the knowledge to the spaceflight community. His science activities have resulted in over 65 peer-reviewed articles and 15 book chapters. His contributions have been recognized by two NASA Public Service medals and other awards. He is an active member of the Aerospace Medical Association and a lifetime member of the Space Medicine Association.

MARY T. KLINKER AWARD

Elena R. Schlenker, Lt.Col. (Ret.), USA, RN, MSHS

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. Sponsored by ZOLL Medical Corporation.

Elena Schlenker, Lt. Col. (Ret.), USA, RN, MSHS, is the recipient of the 2023 Mary T. Klinker Award for being a world-renowned critical care air transport (CCAT) and aeromedical



evacuation (AE) subject matter expert with 30 years as a field medic, critical care nurse, flight nurse, and CCAT course director. She developed high-fidelity simulation and Health and Human Services transport courses. She is an AE and CCAT consultant for scientists and engineers across the joint force to shape modeling tools that enable analysis and solutions to address the formidable AE challenges of future

operational environments. She's also a sought-after consultant for en route care research and technology development that addresses the formidable challenges of future environments.

Lt. Col.(Ret.) Schlenker is currently the SME/Nurse Researcher for En-Route Care at the Air Force Research Laboratory's (AFRL) 711th Human Performance Wing producing en route care knowledge and technology solutions that improves patient outcomes. She began her career as an Army Combat Field Medic in 1988 and received a commission in the U.S. Air Force in 1993. She flew, instructed, or was assigned to a flying billet for 18 years of her career and has deployed in Department of Defense medical services around the

globe, including Bagram AB, Forward Operating Base Salerno, Afghanistan; Diego Garcia, British Indian Ocean Territory; Bosnia; and Guantanamo Bay, Cuba, in the roles of ICU/ER Nurse, AE Flight Nurse, and CCAT Nurse.

Lt. Col.(Ret.) Schlenker started her critical care journey at Wilford Hall Medical Center in 1993, where she worked for 7 years in the Trauma Intensive Care Unit and was one of the initial nurses assigned to the initiation of the first Critical Care Air Transport Team construct. During her AE assignments, she shaped AE policy at Headquarters Pacific Air Forces (PACAF), where she stood up the first Theatre Patient Movement Requirement Center-Pacific (TPMRC-P) as a Clinical Mission Planner pulling TPMRC-P out of the AE Squadron and moving it to Headquarters (HQ) PACAF, Hickam AFB, HI. After that, she became the first HQ PACAF Evaluator Flight Nurse where she worked with Air Mobility Command (AMC) at Air Staff on High Performance Teams to develop Initial Capabilities for AE, the Patient Support Pallet, and the Patient Isolation Unit in addition to providing evaluations for multiple aircraft squadrons across the Pacific.

Lt. Col.(Ret.) Schlenker led a Joint Air Force/Veteran's Affairs 14-bed Intensive Care Unit at Mike O'Callaghan Federal Hospital, Nellis AFB, NV, from 2006–2010. From 2010–2018, she was assigned to the U.S. Air Force School of Aerospace Medicine, where she served as the Deputy Director of the Center for Sustainment of Readiness and Trauma (C-STARS) at the University of Cincinnati Medical Center to prepare future AF critical care physicians, nurses, and respiratory therapists. She and her team developed the curriculum for hi-fidelity simulation training that provides the most realistic hands-on education for medical personnel preparing for combat to care for the most critically wounded in the world. While at C-STARS, she co-developed the first Tactical Critical Care Evacuation Team (TCCET) Course and the Surgical Augmentation Courses. She then became the Course Director at the CCAT Initial Course at Wright-Patterson AFB, where she also oversaw the Initial Flight Nurse/Aeromedical Evacuation Technician Courses. She led the development of high-fidelity simulation which resulted in the first Simulation Certification in the Department of Defense for AE and CCATT programs.

Upon retirement from active duty, Lt. Col.(Ret.) Schlenker was selected as Adjunct Faculty for Florida International University, where she developed and instructed curricula for the Department of Health and Human Services Public Health Corps personnel to learn AE and critical care transport concepts and practices. She is a member of the Military Officers Association of America, the Air and Surface Transport Nurses Association, the Emergency Nurses Association, the American Association of Critical Care Nurses, the Aerospace Nursing and Allied Health Professionals Society, and the Aerospace Medical Association. Her awards and honors include the Nuclear Deterrence Operations Service Medal, Humanitarian Service Medal, Global War on Terrorism Medal, National Defense Service Medal, Air Force Achievement Medal, Air Force Commendation Medal, Aerial Achievement Medal, and the Meritorious Service Medal.

Future AsMA Annual Scientific Meetings

May 5-9, 2024; Hyatt Regency Chicago, Chicago, IL

June 1-6, 2025; Hyatt Regency Atlanta, Atlanta, GA

May 17-21, 2026; Sheraton Denver Downtown, Denver, CO

SIDNEY D. LEVERETT, JR., ENVIRONMENTAL SCIENCE AWARD

Angus H. Rupert, M.D., Ph.D., CAPT (Ret.), MC, USN, FAsMA

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. Sponsored by Environmental Tectonics Corporation.

Angus Rupert, M.D., Ph.D., CAPT(Ret.), MC, USN, FAsMA, was the winner of the 2023 Sidney D. Leverett, Jr., Environmental Science Award for his dedication to Aerospace Medicine and Human Factors and his pioneering research on systemic solutions for spatial disorientation (SD). He conceived, designed, developed, and flight tested a tactile cueing system that has the potential to mitigate SD. He is an untiring advocate for a systems approach to solving aerospace problems.



Following a Ph.D. in neurophysiology from the University of Illinois and an M.D. from the University of Toronto, Dr. Rupert joined the U.S. Navy in 1985. He served operationally as a Navy flight surgeon in the Azores before joining the Naval Aerospace Medical Research Laboratory (NAMRL) in Pensacola, FL. At the Naval Aerospace Medical Research Laboratory, he developed programs to explore vestibular psychophysics and the neurophysiological responses to unusual acceleration experienced by pilots, astronauts, and operators of high-performance military 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 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 CAPT Rupert 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 transitioned his tactile cueing device, originally developed for aerospace environments, to balance rehabilitation technologies for personnel suffering balance dysfunction associated with mild traumatic brain injury. In addition, for the past 18 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 2016–2017 Fulbright Distinguished Chair in Advanced Science and Technology to provide the opportunity to transition the TSAS to Australian aviation assets. In 2020, he accepted a position as Research Professor at Embry-Riddle Aeronautical University in Daytona, where he continued his aviation research activities until 2023 when he re-

turned to the U.S. Army Aeromedical Research Laboratory as Director of the Warfighter Protection Group.

Dr. Rupert is a member of the Barany Society, Aerospace Control & Guidance Systems Committee, American Institute of Aeronautics and Astronautics, Royal Aeronautical Society, Aerospace Human Factors Association, and the Aerospace Medical Association. His awards include Aviation Week and Space Technology 2000 Laurels Award for Outstanding Achievement in the field of Electronics and the Kent K. Gillingham Award for spatial disorientation research from the Aerospace Medical Association in 2005. He is an author or co-author of many publications and presentations.

ERIC LIJENCRANTZ AWARD

Kris Lehnhardt, M.D., FRCPC, FACEP, FAsMA

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. Sponsored by Aerospace Medical PLC.

Kris Lehnhardt, M.D., FRCPC, FACEP, FAsMA, received the 2023 Eric Liljencrantz Award for his excellence as an educator in Aerospace Medicine, specifically for teaching medical and non-medical students/professionals about the challenges of human health in space. He has mentored students/residents from all over the world, providing them with educational, research, and career guidance (including encouraging them to become AsMA members!). At George Washington University, he created the Introduction to Human Health in Space graduate course and the Fellowship in Extreme Environmental Medicine. His performance as an educator has been excellent, as demonstrated by overall perfect instructor scores in his most recent course. He works tirelessly to help those around him and to help them reach their goals within aerospace medicine.



Dr. Lehnhardt is the Element Scientist for Exploration Medical Capability in the NASA Human Research Program at the NASA Johnson Space Center. He is also an Associate Professor with the Baylor College of Medicine in the Center for Space Medicine and the Department of Emergency Medicine. He is board-certified in Emergency Medicine in both Canada and the United States, and he works clinically in the Emergency Department at the Ben Taub Hospital in Houston, TX, USA. Prior to these positions, he was an Attending Physician and Assistant Professor at The George Washington University (GWU) School of Medicine and Health Sciences in Washington, DC. Originally from Canada, he completed his Honours B.Sc. in Bio-Medical Science at the University of Guelph, Ontario, Canada, in 1999. He earned his medical degree in 2003 and served an emergency medicine residency from 2003–2008 at the University of Western Ontario, London, Ontario, Canada.

See 'Lehnhardt,' p. N35

Dr. Lehnhardt is a Fellow of the Aerospace Medical Association (AsMA), a Fellow of the American College of Emergency Physicians, and a medical specialist reservist in the Royal Canadian Air Force. Within AsMA, he is a member of the Education and Training Committee and was awarded the AsMA President's Citation for "exceptional commitment to the mentoring and professional development of student and resident members, promoting aerospace medicine research, and expanding collaboration within the aerospace medicine community." His awards include the NASA Johnson Space Center Group Achievement Award (twice); the International Space Station Research and Development Conference Award for Compelling Results in Human Health in Space; the Best Paper Award, Software and Computing Track, Institute of Electrical and Electronics Engineers at the IEEE Aerospace Conference in 2019; a Faculty Teaching Award, Department of Emergency Medicine, School of Medicine and Health Sciences, George Washington University; and being a finalist for the Space Medicine Association's Jeff Myers Young Investigator Award.

THEODORE C. LYSTER AWARD

Daniel L. Van Syoc, M.D., M.P.H., FAsMA

This award was established to honor the memory of Brig. Gen. Theodore C. Lyster, the first Chief Surgeon, Aviation Section, U.S. Signal Corps. It is given annually for outstanding achievement in the general field of aerospace medicine. Sponsored by the Society of U.S. Army Flight Surgeons.

Daniel L. Van Syoc, M.D., M.P.H., FAsMA, received the 2023 Theodore C. Lyster Award for his stellar U.S. Air Force and civilian Aerospace Medicine career. He was a U.S. Air Force



reference source for the Waiver Guide and authored numerous Clinical Practice Guidelines for the American Society of Aerospace Medicine Specialists (ASAMS). He was a Charter member and President of ASAMS and volunteered to co-author many of the Clinical Practice Guidelines that were requested by AsMA. From 2004 to 2005 he was the Editor of the initial two sets of Maintenance of Certification questions for recertification candidates in Aerospace Medicine. After retirement, he became involved in the Fellows Nominating Committee and then took the Chair position of the Fellows Evaluation Committee (FEC). As chair he has been invaluable gathering appropriate members of the committee and performing the chore of reviewing each Fellow candidate's application, ensuring that their score is accurate.

Dr. Van Syoc was born in Waterloo, IA, in 1953 and graduated from Cedar Falls High School in 1971. His undergraduate degree was from Iowa State University and he graduated from the University of Iowa College of Medicine in 1980. Following a 3-year family medicine residency, he entered active duty in 1983 as a family doctor. After serving 4 years as a family doctor, he made the move to flight medicine and never looked back. After completing his Master's in Public

Health at the University of Oklahoma in 1990, he graduated from the U.S. Air Force Residency in Aerospace Medicine in 1991. After tours in Georgia and the United Kingdom, he arrived at the Aeromedical Consult Service (ACS) at Brooks AFB, TX, in 1995 and later served as the chief of the ACS from 2001 to 2004. Upon retirement from active duty in 2008, he returned to Brooks to be the USAF Waiver Guide coordinator and then moved with the ACS to Wright-Patterson AFB to assume the role of deputy chief of the ACS, as well as continuing his work with the Waiver Guide.

Dr. Van Syoc has completed almost 40 years of service to the U.S. Air Force: 25 years active duty, almost 9 as a civil servant, and the remainder as a contractor. All but 4 of those years were served as a flight surgeon. His wife's chronic medical condition led to his second retirement and move back to San Antonio in 2020. He then filled a contract position within the AETC/SG for eight months in 2022 and finally retired for good. He is currently board certified in both Aerospace Medicine and Occupational Medicine.

Dr. Van Syoc has been a member of AsMA since 1988 and a fellow since 2003. He is also active with the Society of USAF Flight Surgeons (SOUAFFS), ASAMS, and the International Academy of Aerospace Medicine. His awards include the Humanitarian Service Medal, National Defense Medal, Air Force Achievement Medal, Air Force Commendation Medal, six Meritorious Service Medals, and the Legion of Merit.

MARIE MARVINGT AWARD

David K. McKenas, M.D., M.P.H.

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.

David K. McKenas, M.D., M.P.H., is the 2023 winner of the Marie Marvingt Award for his pioneering work in getting automatic external defibrillators (AEDs) accepted and placed on



board commercial aircraft. His efforts directly led to placement of these lifesaving devices on all aircraft in American Airline's fleet, and later led to the FAA's Advisory Circular 122-33 making AEDs part of the Minimum Equipment List (MEL) on all U.S.-based commercial airlines of greater than 30 passenger capacity and staffed by 1 Flight Attendant. His work also demonstrated the value of an active

and engaged Occupational Medicine department within a highly visible international corporation. All of these efforts were highlighted in February 1998 when the first American Airlines customer was successfully revived from cardiac arrest using an onboard AED and the quick actions of a trained flight attendant and volunteer passenger.

See 'McKenas,' p. N36

From 'McKenas,' p. N35

Dr. McKenas is a board-certified specialist in both Aerospace Medicine and Occupational Medicine. He served as Corporate Medical Director for American Airlines from 1992 to 2002, a period that included the final years at the helm of legendary American CEO Robert Crandall. In his early years, he studied music composition, piano, and voice, and performed in a professional choir and as a piano soloist and accompanist as a child. He graduated from the American Boychoir School in Princeton, NJ, and then the Interlochen Arts Academy, Interlochen, MI, as a piano major, all prior to college. At the State University of New York (SUNY) at Binghamton, he minored in music, but earned his undergraduate degree in biochemistry in 1977 before studying medicine at SUNY Upstate Medical Center and the Harvard University School of Public Health in Boston, MA.

Dr. McKenas earned a scholarship and a commission from the U.S. Air Force. As an Air Force Officer, he served as the lead aerospace medicine doctor in the Department of Defense's (DOD's) Manager Space Transportation System Contingency Support (DDMS) program at Cape Canaveral, FL, where he coordinated DOD worldwide emergency care for NASA's astronauts in the event of a space shuttle catastrophe. As a Residency in Aerospace Medicine (RAM) trained flight surgeon, he also received full flight training, up to the point of soloing on a T-37 jet airplane. Upon leaving the Air Force in 2002, he joined the American Airlines Medical Department. In 1996, as the airline's Corporate Medical Director, he convinced CEO Robert Crandall and American Airlines management to make history in becoming the first air carrier in the United States to place defibrillators and enhanced medical kits on board its entire fleet of over 400 planes, and to train 25,000 flight attendants on defibrillator usage. American's program was the first large scale Public Access Defibrillator program in the United States and paved the way for now commonplace ground access defibrillator programs. His congressional testimony moved the groundbreaking program to a regulatory requirement under the FAA for all U.S. air carriers, a move which spread to all worldwide air carriers. The innumerable lives saved through his efforts is captured in the book, "SHOCKED: Life and Death at 35,000 feet".

Dr. McKenas is a member of the American College of Occupational and Environmental Medicine, American College of Physician Executives, American College of Physicians, Society of NASA Flight Surgeons, Society of ASAF Flight Surgeons, and an Associate Fellow of the Aerospace Medical Association. He is a Fellow of American College of Preventive Medicine. He is certified by the American Board of Preventive Medicine, American College of Occupational and Environmental Medicine, and the American Board of Medical Management.

FAA AME Seminars

These are offered by the FAA AME Program office.

Aug. 4-6, 2023	Washington, DC	Refresher
Oct. 5-7, 2023	Omaha, NE	CAMA
Oct. 23-27, 2023	Oklahoma City, OK	Basic
Nov. 17-19, 2023	Jacksonville, FL	Refresher

Please check the [FAA website](#) for more information.

HARRY G. MOSELEY AWARD Raymond E. King, Psy.D., J.D., FAsMA, and Chris M. Front, Psy.D., FAsMA

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. Sponsored by the International Association of Military Flight Surgeon Pilots.

Raymond E. King, Psy.D., J.D., FAsMA, and Chris M. Front, Psy.D., FAsMA, were the joint recipients of the 2023 Harry G. Moseley Award for their development and implementation of the Federal Aviation Administration's (FAA's) Aerospace Psychology screening program for ATCS selection. In 2002, Dr. King studied over 1,000 Air Traffic Academy participants at the FAA Civil Aerospace Medical Institute. Based upon MMPI-2 results, 5% of these trainees had been selected with potentially disqualifying mental health conditions. The study's significance to Aerospace Safety made it the FAA's 2009 William E. Collins Award winner. To address this substantial NAS safety risk, Dr. King focused on developing an effective screening model and secured FAA funding for the program, arguing "Safety is the Client." Dr. Front strengthened the model by developing a nationwide cadre of clinical psychologists whom he trained. Drs. King's and Front's collaborative and synergistic efforts enhanced flight safety due to their research and operational implementation of the screening program.

Dr. King is a licensed psychologist and native of Colonia, NJ, USA. He received his B.A. from Rutgers College, New Brunswick, NJ, his M.A. from Fairleigh Dickinson University, Madison, NJ, his doctorate from the Illinois School of Professional Psychology, Chicago, IL, and his law degree from Concord Law School, Los Angeles, CA.



During his U.S. Air Force (USAF) career, Dr. King implemented treatment programs to aid fledgling pilots in coping with airsickness and other adaptational and stress responses to the demands of flight while assigned to Sheppard Air Force Base, Wichita Falls, TX. He has taught mishap investigation techniques to psychologists, physiologists, flight surgeons, and other human factors consultants while assigned to Brooks AFB, San Antonio, TX. He has served as a psychiatric evaluator to numerous astronaut selection cycles at NASA Johnson Space Center, Houston, TX. He served as principal investigator on two grants investigating the stressors, career goals, and personality/cognitive characteristics of male and female aviators. He served as the Chief of the Collaborative Systems Technology Branch of the Crew System Interface Division, Human Effectiveness Directorate, during the merger of the Armstrong and Wright Laboratories into the Air Force Research Laboratory while assigned to Wright-Patterson AFB, Dayton, OH. He was the Chief of Human Factors Research at the Headquarters of the Air Force Safety Center, Kirtland Air Force Base, Albuquerque, NM.

Dr. King separated from the USAF and started his FAA career as a personnel research psychologist immediately before

See 'King & Front,' p. N37

the September 11th terrorist attacks. He subsequently psychologically screened applicants for the Federal Air Marshal (FAM) program near Atlantic City, NJ. Upon his return to the Civil Aerospace Medical Institute (CAMI) in Oklahoma City, OK, he was appointed to be the Principal Investigator for the Air Traffic Control Specialists career field. After a 7-year USAF Reserve stint as an Individually Managed (Mobilized) Augmentee (IMA) at Tinker AFB, Oklahoma City, OK, he returned to Active Duty and was assigned to the USAF School of Aerospace Medicine (Brooks City Base, San Antonio, TX, and then Wright-Patterson AFB, Dayton, OH), was deployed to Guantanamo Bay, Cuba, to serve as the Deputy Chief of the Behavioral Science Consultation Team to work with terrorist detainee interrogation teams and the guard force, and finished his career by returning to the Headquarters of the Air Force Safety Center, Kirtland Air Force Base, Albuquerque, NM, to develop a human factors taxonomy. Upon separating once again from the USAF, he immediately retired from the USAF Reserve at the rank of Lieutenant Colonel and returned to the FAA and currently works in the Medical Specialties Division of the Office of Aerospace Medicine, FAA Headquarters, Washington, DC.

Dr. King is a Fellow of the Society for Personality Assessment, Fellow and Past President of the Aerospace Human Factors Association, and a Fellow of the Aerospace Medical Association. He is a member of the Association of Aviation Psychologists. His honors include the Meritorious Service Medal with six oak leaf clusters, Air Force Commendation Medal, Air Force Achievement Medal, 2009 William E. Collins Publication Award from the FAA Administrator, and the 2003 Raymond F. Longacre Award from the Aerospace Medical Association.

Dr. Front received Master's and Doctoral degrees in Clinical Psychology from the Pacific University School of Professional Psychology and a Master's degree in Interpersonal and Small Group Communication from the University of California at Santa Barbara. He is a Diplomate of the American Board of Assessment Psychology (ABAP), a Fellow of the Aerospace Medical Association, and a Fellow of the Society for Personality Assessment. He is a member of the Aerospace Human Factors Association, the Association for Aviation Psychology, the Society of U.S. Naval Flight Surgeons, the

International Association of Military Flight Surgeon Pilots, the Experimental Aircraft Association, the Airplane Owners and Pilots Association, the International Aerobatics Club, Warbirds of America, the Vintage Aircraft Association, the Navy Annapolis Flight Center, and the St. Pete Air flying club.

As a Navy Clinical Psychologist, Dr. Front served on active duty for 7 years, including 2 years aboard the aircraft carrier USS John C. Stennis (CVN-74). He completed an Operation Enduring Freedom deployment during which he was the sole mental health provider for approximately 10,000 sailors, airmen, and marines aboard 10 ships in the deployed carrier battle group and regularly flew ship-to-ship to provide psychological services. He then served for 13 years as a reserve



officer in the Department of Psychiatry at the Naval Aerospace Medical Institute (NAMI), Naval Air Station Pensacola, where he was "winged" as an Honorary Navy Aerospace Experimental Psychologist. He retired from the U.S. Navy as a Lieutenant Commander in 2018.

In 2008, Dr. Front began working as a Licensed Clinical Psychologist in the Office of Aerospace Medicine at the headquarters of the FAA in Washington, DC. At the FAA, he managed all clinical aspects of the FAA's psychological assessment of Air Traffic Control Specialist (ATCS) applicants and served as the chief consultant to the Federal Air Surgeon on matters related to the psychological assessment of pilots and air traffic controllers. Following the GermanWings disaster, he was appointed to the FAA's Aviation Rulemaking Committee on Pilot Health and has had an ongoing leadership role on the Aerospace Medical Association's Expert Working Group on Aerospace Mental Health. He also provided expert testimony for the FAA at NTSB hearings and coordinated FAA research projects in aerospace clinical psychology. He retired from the FAA in 2022.

Dr. Front is now the President/CEO and Aerospace Clinical Psychologist for FrontAero Consulting, LLC, which provides specialty consultation in aerospace clinical psychology to individuals and organizations such as Delta Airlines, the University of Minnesota Press, and the FAA. He has developed and delivered over 100 training seminars and workshops on the psychological assessment of pilots and air traffic controllers to both military and civilian clinicians from around the globe. He has published several book chapters and journal articles on those and related topics, and has been the recipient of numerous civilian and military awards, including the "Commitment to Safety" Award from the FAA Flight Standards Office, Southwest Region, the "Superior Accomplishment" Award from the FAA Office of Aerospace Medicine, and the Boothby-Edwards Award from the Aerospace Medical Association.

JOHN PAUL STAPP AWARD

Swee Weng Fan, MBBS, DAvMed, MMed, M.Sc., FAsMA, CFII

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.

Swee Weng "Buzzlite" Fan was the 2023 recipient of the John Paul Stapp Award for his outstanding contributions in aerospace biomechanics and promoting progress in protection from ejection and impact for international aircrew over the past 28 years. He has trained numerous pilots and aircrew from international air forces on ejection and crash survival training, including parachute and landing operations. He has conducted this training at numerous international training centers. In the Republic of Singapore Air Force (RSAF), he was a general aviation pilot and aerospace physiology instructor in ejection survival during pilot and aircrew physiology training, including the use of ejection seat trainers. As an instructor at Environmental Tectonics Corporation (ETC), he

See 'Fan,' p. N38



has been intimately involved in the formulation, revision, and innovation of lesson syllabi and training instructions on ejection and crash survival for international aeromedical centers. He also plays a primary role in ejection seat trainer man-rating and safety at ETC.

Dr. Fan started his Aerospace Medicine career as an Aviation Medical Officer in the RSAF from 1993–2009. Throughout his career

in the RSAF, he was actively involved in all facets of Aerospace Medicine, including clinical Aerospace Medicine, operational Aerospace Medicine, and Aerospace Physiology. As an instructor, he was actively involved in Aerospace Physiology training, such as in G protection, ejection seat training, and altitude physiology training. He was trained as a basic military airborne (staticline) parachutist and a Crew Resource Management Facilitator. He has also attended the Aircraft Mishap Investigation and Prevention (AMIP) Course while attending an exchange program with the U.S. Air Force.

After retiring from the RSAF as a Lieutenant Colonel, Dr. Fan joined Environmental Tectonics Corporation (ETC) in 2011 to pursue his career in Aerospace Physiology. He currently serves as the Senior Flight Surgeon Pilot, providing Aerospace Physiology training for aviators, Aerospace Physiology instructors, and aeromedical professionals. He is also instrumental in developing and reviewing training curriculums in Aerospace Physiology provided by ETC. He is also the Subject Matter Expert in Aerospace Physiology and Medicine, supporting the design, manufacturing, testing and commissioning of Aerospace Physiology training devices produced by ETC, such as the human centrifuge, ejection seat simulators, altitude chambers, and spatial disorientation trainers. He plays an integral role in the improvement of training modalities and concepts through application of new data and information available. He also serves as the test pilot to ensure that devices such as the human centrifuge, ejection seat simulators, and altitude chambers are tested and man-rated for safety and operational readiness.

Dr. Fan attained his medical degree from the National University of Singapore, where he received a Master's Degree in Occupational Medicine. He received his Aerospace Medicine training at the Royal Air Force School of Aviation Medicine (Diploma in Aviation Medicine, UK) and Wright State University (Master of Science, Aerospace Medicine). He has been a Life Member of the Aerospace Medical Association (AsMA) since 1998 and an AsMA Fellow since 2020. He has also been an Academician of the International Academy of Aviation and Space Medicine (IAASM) since 2013.

Dr. Fan holds a FAA Commercial Pilot License with Instrument Rating and is also a Certified Flight Instructor (Instrument) and Advanced/Instrument Ground Instructor. He has been a member of the Civil Air Patrol for over 10 years, serving as a pilot and in command positions within the Pennsylvania Wing. His awards include the Singapore Armed Forces (SAF) Good Service Medal; SAF Overseas Service Medal; SAF Long Service and Good Conduct Medal and Bar; Barbara Harrison Award for Best Overseas Student, Diplomate in Aviation Medicine Course, Royal Air Force School of

Aerospace Medicine; and the Best Paper Award from the 4th Asian Conference on Defense Technology.

JOHN A. TAMISIEA AWARD Christopher Flynn, M.D.

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.

Christopher Flynn, M.D., was the recipient of the 2023 John A. Tamisiea Award for his outstanding contribution to the field of Aviation Psychiatry across a broad spectrum of air-



crew, whether in the military, NASA (astronauts), or general aviation. He is a gifted teacher who has educated new and experienced HIMS Psychiatrists and AMEs and has assisted aircrew with mental health issues. He is involved in Resident education for training of future specialists as well as research to improve management. He personally reviewed over 700 Airmen mental health cases, helping de-

crease the backlog at the Federal Air Surgeon's office. Always available to the AME or Certification Physician, he is quick to help provide guidance and direction on the best way ahead to assist in very complex psychiatric conditions. He also designed an extremely popular training curriculum to introduce Psychiatry Residents to the field of Aviation Psychiatry, preparing the next generation of Psychiatrists.

Dr. Flynn is currently an Assistant Chief Psychiatrist for the Federal Aviation Administration (FAA). As a consultant to the Federal Air Surgeon, he is responsible for the return to flight status recommendations for all classes of airman and for maintaining the safety of the National Airspace. He has served in senior leadership positions in the U.S. Air Force, the VA Healthcare System, and the U.S. Department of State. He is an author or co-author of 11 peer reviewed articles and six aerospace psychiatry-focused book chapters. He earned a B.A. in Chemistry from Berry College, Rome, GA, in 1981 and his M.D. from the Medical College of Georgia, Augusta, GA, in 1985. He served a residency in Psychiatry at the University of Colorado Health Sciences Center, Denver, CO, from 1985–1989, and then graduated from the U.S. Air Force School of Aerospace Medicine, Brooks AFB, TX, in 1991 as Flight Surgeon.

Dr. Flynn has earned numerous awards for his service excellence, including the U.S. Air Force Commendation Medal, Tactical Air Command; Clinician of the Year Award, Air Force Association; Superior Achievement Award from the Director of NASA Johnson Space Center; two Special Spaceflight Achievement Awards from the Director of Space & Life Sciences; Space Act Award for Technical Innovation from NASA Johnson Space Center; two U.S. Air Force's Meritorious Service Medals; Meritorious Honor Award, U.S. Department of State, for the response to the 2015 Nepal Disaster;

See 'Flynn,' p. N39

and the Raymond F. Longacre and Boothby-Edwards (shared with a Working Group) Awards from the Aerospace Medical Association. He is a Board-Certified Psychiatrist, Fellow of the American Psychiatric Association, Fellow of the Aerospace Medicine Association, Fellow and Trustee of the Civil Aviation Medical Association, and a member of the American College of Psychiatrists.

ARNOLD D. TUTTLE AWARD
Elizabeth Damato, BSN, MSN, Ph.D., and
Michael Decker, BSN, Ph.D.

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. Sponsored by KBR.

Elizabeth Damato, BSN, MSN, Ph.D., and Michael Decker, BSN, Ph.D., were the 2023 recipients of the Arnold D. Tuttle Award for their roles as co-Principal Investigators for the research project that led to the publication of "Characterizing the Dose Response of Hyperoxia with Brain Perfusion" published in the journal in June 2022 [Aerosp Med Hum Perform. 2022; 93(6):493–498]. They and their co-authors conducted a study to determine if a dose-response relationship exists between $F_{I}O_2$ and cerebral perfusion (CBF). To accomplish this, they selected 26 subjects who were then randomized to receive either low-dose $F_{I}O_2$ of 30%, 40%, 50%, and 100% or high-dose $F_{I}O_2$ of 60%, 70%, 80%, and 100%, followed by a return to 21% for both groups. An MRI scanner was used to measure CBF. They found that baseline CBF did not differ between the two groups. Low-dose $F_{I}O_2$ did not affect CBF, while high-dose $F_{I}O_2$ significantly reduced it. Similar reductions in CBF were seen for both groups when exposed to 100% $F_{I}O_2$. The authors concluded that there is a dose-response relationship as the neurovascular system appears to respond to increasing $F_{I}O_2$ in a dose-dependent manner, with significant reductions in CBF with $F_{I}O_2$ exposures $\geq 60\%$.

Drs. Damato and Decker are Co-Directors of The Center for Aerospace Physiology, located in the Department of Physiology & Biophysics at Case Western Reserve University School of Medicine. Their collective research interests focus upon understanding human physiological responses to extreme environmental conditions. They routinely travel to Air Force bases to collaborate with, and study, tactical aviators to



define mechanisms eliciting biochemical cascades leading to onset of cognitive fatigue. Outcomes from those studies inform their laboratory-based efforts that have characterized the effects of high doses of inspired oxygen concentrations upon brain structure and function.

Dr. Damato earned a BSN at Vanderbilt University, Nashville, TN, in 1981, and then an MSN at the University of Pennsylvania, Philadelphia, PA, in 1985. In 1987, she received a Certificate in Perinatal Nursing from the University of Pennsylvania. She graduated with a Ph.D. degree in Nursing Research from Boston College, Chestnut Hill, MA, in 1998. From 1985–1988, she was an Assistant Professor of Nursing at the University of Pittsburgh, Bradford, PA, and then became a Pediatric Nurse Practitioner/Neonatal Clinical Nurse Specialist at Harvard Vanguard Medical Associates in Boston. In 2000, she became an Assistant Professor of Nursing at Case Western Reserve University in Cleveland, OH. She was then promoted to Associate Professor of Nursing at Case Western in 2008. In 2015, she took the position of Associate Professor of Neurosciences and in 2019 Associate Professor of Pulmonary/Critical Care/Sleep Medicine, Physiology, and Biophysics, positions she still holds today. From 2018 to 2022, she was also a Senior Research Physiologist at Naval Medical Research Unit (NAMRU)-Dayton.

Dr. Damato's honors include the Glennan Fellowship and Woman of Excellence in Research Award from Case Western, the Jessica Melton Perry Award for Distinguished Teaching in Disciplinary and Professional Writing, also from Case Western, and a Distinguished Service Award from the National Association of Neonatal Nurses. She is a Registered Nurse and Certified Nurse Practitioner from the Ohio Board of Nursing and serves on the NATO Science and Technology Organization's Aviation Physiologic Events Working Group.

Dr. Decker graduated with a BSN in 1994 from Case Western Reserve University and earned his Ph.D. in 1999, also from Case Western. During 1999, he was an Instructor in Anatomy at Case Western and then became an Instructor in Neurology at Emory University, Atlanta, GA, in 2000. He was promoted to Assistant Professor in 2002 and also became a Visiting Scientist at the Centers for Disease Control (CDC). In 2008, he was made Team Leader, Chronic Viral Disease Branch at the CDC. He left that position in 2010 to become an Associate Professor, Byrdine F. Lewis Chair in Nursing, at Georgia State University. He returned to Case Western in 2013 to serve as Associate Professor of Nursing, Neurosciences, Pulmonary/Critical Care/Sleep Medicine. He was a Senior Research Physiologist at NAMRU-Dayton from 2018–2022 and also became Associate Professor of Physiology and Biophysics, Neurosciences, at Case Western, a position he holds today.

Dr. Decker's honors include an Undergraduate Research Stipend for Genetic Adaptations in High Altitude Populations from the National Science Foundation; Excellence in Anatomy, Stearns Foundation, Case Western Reserve University; and a Research Excellence Award from the American Professional Sleep Society. He is certified as a Respiratory Care Professional from the Ohio Medical Board, a Registered Nurse from the Ohio Board of Nursing, and a Diplomate of the American Board of Sleep Medicine.

IAF GNF Space Conversations: <https://www.iafas-tro.org/events/iaf-gnf-space-conversations-series/>.

JULIAN E. WARD MEMORIAL AWARD **Caleb S. James, D.O., M.P.H., Maj., USAF**

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.

Caleb S. “Rick” James, D.O., M.P.H., Maj., USAF, received the 2023 Julian E. Ward Memorial Award for his service with distinction as a Resident in Aerospace Medicine. His determination for data-driven innovation and passion for process improvement enabled him to improve methodologies for flight surgeon training and decision making internationally. His coronary artery disease research has demonstrated positive impacts, returning aircrew to flight without safety decrement. His clinical informatics expertise drives innovation to return the aviator to flight, and the flight surgeon



to their role as advisor and clinician. During his residency, he created numerous meaningful resources for future flight surgeons and aerospace medicine specialists. While not all inclusive, his list of accomplishments includes building field guides, waiver updates, safety bulletins, residency curricula enhancements, computer macros, website upgrades for the “RAMPage”, medical standards improvements, predictive real-time multiorganization COVID trackers, identifying serious medical conditions on routine evaluations, and novel research coordination tools.

Dr. James is the Chief of Aerospace Medicine, 5MDG, Minot AFB, ND. He serves as the Lead Competent Medical Authority, Public Health Emergency Officer, Installation Occupational and Environmental Medicine Consultant, and the Flight Surgeon Functional Lead. He manages the website for the Air Force Residency in Aerospace Medicine, develops tools for use at military treatment facilities, and oversees the functional aspects of Aerospace Medicine at Minot AFB. He earned a B.Sc. in Cell/Molecular Biology, Biomedical Science and Biology, from Grand Valley State, MI, in 2011, and his D.O. in 2015 from Michigan State University College of Osteopathic Medicine, Lansing. He served a Surgical internship at the University of California-Davis, Sacramento, and also took the Aerospace Medicine Primary Course at Wright-Patterson AFB, OH, in 2016. He graduated Squadron Officer School in 2019 and completed the Residency in Aerospace Medicine in 2022.

Dr. James entered active duty in 2015, serving as a Surgical Intern at the 60th Medical Group at Travis AFB, CA, and completed two operational tours with the 509th Medical Operations Squadron at Whiteman AFB, MO, where he served as the Base Operational Medicine Clinic Element Chief, and 8th Medical Operations Squadron at Kunsan AB, Republic of Korea. He was an Aerospace Medicine Resident at the U.S. Air Force School of Aerospace Medicine until 2022, when he took his current position.

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Dr. James holds various awards, including the Air Force Commendation Medal with one oak leaf cluster, Air Force Achievement Medal, Global War on Terrorism Service Medal, Korean Defense Service Medal, UC-Davis Neurosurgery Intern of the Year, Air Force Global Strike Command Flight Surgeon of the Year, and U.S. Air Force Company Grade Officer Physician of the Year. He holds a medical license from Indiana and has 96 hours of flight in various aircraft.

Fellows Class of 2023

The following members have achieved Fellows status: Gary Beven, Matthew Cooper, Mark Corbett, Terry Correll, Sarita Dara, Benjamin Easter, Kenneth Egerstrom, Jon Gray, Amy Hicks, Thomas Hoffman, Tovy Kamine, Winton Laslie, David Lerner, Mark Loeffler, Ryan Mayes, David McLoughlin, Paul Nelson, Bonnie Posselt, Sabine Roelke, Paul Sherman, Russell Tontz, and Emmaneul Urquieta.

Those present at Honors Night, May 25, 2023, are pictured in the photo below with Warren Silberman (far right in the back), Chair of the Fellows Group, and Susan Northrup (far left), 2022-2023 President of AsMA.



2023 AsPS Partnership in Education Award



Ilene Wheaton (left), Chair of the Partnership in Education (PiE) Committee of the Aerospace Physiology Society (AsPS), presented the 2023 award to Mr. Gregory L. Sextion (middle) of the Samuel J. Green Charter School in New Orleans, LA, while Ms. Eileen Bunton (right), the Principal, looked on.



AsPS PiE Award Group: The group who visited the Samuel J. Green Charter School to award Mr. Sexton were, left to right: TSgt Jimmy Sayarath, USAF; LT Ryan Hebard, MSC, USN; Lt.Col. Jaime Harvey, USAF, BSC; LT Tyler Welden, MSC, USN; Ilene Wheaton; LCDR Kevin Brighton, MSC, USN (back); LT Valentino Bailey (far back); LT Amos Meyers, MSC, USN; and TSgt Micheal Heatherly.



AsPS PiE Award Demonstrations: From left to right, LCDR Kevin Brighton (AMSO 4th MAW, NOLA), LT Amos Meyers (ASTC, Norfolk, VA), LT Ryan Hebard (ASTC, Cherry Point, NC), and LT Tyler Welden (ASTC, Jacksonville, FL) demonstrate aviation life support equipment to students of the Samuel J. Green Charter School.

Space Medicine Association 2023 Jeff Myers Young Investigators Award

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, Rainer Effenhauser, Bill Tarver, Richard Cole, and Steve Guyton. The finalists in this year's competition, selected from 193 potential contestants, are richly talented and diversified.

The winner of the 2023 SMA JM YIA is Major Brian C. Hanshaw, D.O., M.P.H. His paper is entitled: "Spaceflight Recovery Considerations for Acute Inhalational Exposure to Hydrazine". This careful and thorough review challenges

decades old dogma regarding the treatment priorities surrounding accidental exposures to the major fuel used for maneuvering and launch abort escape engines in most crewed space vehicles. Brian's interest in this comes on a personal level—his father was an aircraft fueller in the Air Force working with these kinds of chemicals (you might say it's in his DNA!). This evidence-based research supports expedited attention to the management of the ABCs, seizures, and Medevac without delay. Dr. Hanshaw conducted this research as part of his UTMB Aerospace Medicine Residency and also in the USAF. His future plans include the hope of continuing his service to the Space Program through Air Force Search and Rescue assignments.

The first runner up is Isaiah Reeves, M.D., who is in the UTMB combined Internal Medicine and Aerospace Medicine
See 'Young investigators,' p. N42



Alejandro Garbino (left), 2022-2023 President of SMA, presents the YIA to Brian Hanshaw (right) while Jeff Myers (center rear) makes the announcement.



Left to right: Young Investigator 2023 Finalists Diego Garcia (standing in for Laura Pineda, the YIA 2nd runner-up), Lt. Col. Alessandro Fiorini, former YIA runner-up Cathy Dibiase, Sangeev Singh, Speaker and Space X Astronaut Anna Menon, Squadron Leader Anitha Thambidurai, YIA Honorable Mention Samantha King, Jeff Myers, Capt. Ryan Keller, Hannah Baumgartner, YIA runner-up Isaiah Reeves, YIA Winner Major Brian Hanshaw, and 2nd Lt Virginia Thomas. Not pictured: YIA finalists Alex Llauguet and Koyal Ansingkar.

residency programs. His paper is titled "Tolerance of Centrifuge-Simulated Commercial Spaceflight in a Subject with Hemophilia A", which is on target with the recent efforts at expanding the spaceflight envelope in the human population. The second runner up is Laura Maria Pineda Jimenez, M.D., an Internal Medicine resident at the National University of Columbia working with the Civil Aviation Authority. Her paper is "Clinical Characteristics of Medical Certificate Holders with Confirmed SARS-CoV-2 Infection Reported to the Civil Aviation Authority of Columbia", a timely and relevant topic. Honorable Mention went to Samantha King, M.D., for her paper completed during the KBR Wyle clerkship at JSC, "Mars Medical System Hardware Capabilities Survey", which helps lay the groundwork for that future exploration. She has also recently been accepted into the UTMB Aerospace Medicine Residency Program.

Additional Finalists include: Ganeev Singh, M.D., Tufts University School of Medicine in Collaboration with Space Medicine Ireland; Squadron Leader Anitha Thambidurai, M.D., resident faculty at the Institute of Aerospace Medicine in Bengaluru India; 2nd Lt. Virginia Thomas, B.S., a former paratrooper and now a med student in the Health Professions Scholarship program in Dothan AL; Captain Ryan J. Keller, M.D., Baylor University, Houston, TX; Hannah M. Baumgartner, Ph.D., FAA CAMI; Alexander Llaugett, a med student at University of Central Florida; Lt. Col. Alessandro Fiorini, M.D., a Flight Surgeon in the Italian Air Force working with the European Air Transport Command in the Netherlands; and Koyal Ansingkar, B.S., M.S., Case Western Reserve University, Cleveland, OH, recently accepted to med school at Texas A&M.

Although they are young and new to the field, these Young Investigators continue to bring valuable insights, such as challenging established dogma (if we do not challenge dogma, then we risk going to the dogs!). They have overcome personal challenges, demonstrating remarkable resilience, while laying the foundation for the legacy of a truly amazing new generation of Aerospace Medicine scientists. Undaunted, they will surely make their mark toward 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.

K. Jeffrey Myers, M.D.

Moynihan to Lead NASA Flight Surgeons

We mistakenly identified Dr. Serena Auñón-Chancellor as the incoming President of the Society of NASA Flight Surgeons in the June newsletter and journal. She was the President for 2022–2023. We apologize for this error and any confusion caused.

Dr. Shannan Moynihan is the 2023-2024 President of the Society of NASA Flight Surgeons. She currently serves as the Deputy Chief Medical Officer at the NASA Johnson Space Center (JSC), a position which she assumed in 2017. She assists the Chief Medical Officer (CMO) in management of health risks related to human spaceflight and in providing technical oversight to NASA human spaceflight programs, with a focus on the programs including the International Space Station (ISS), the Commercial Crew Program, and



Commercialization, which includes the Private Astronaut Missions and Commercial Destination Free flyer programs. She served as the Chair of NASA's Aeromedical Board from 2017 until 2023, which certifies astronauts, flight directors, flight controllers, and aircraft operators for duty. Recently she has transitioned to the position of Co-Chair for the Multilateral Space Medicine Board, an international body which medically certifies astronauts for flight to the International Space Station.

Dr. Moynihan has an undergraduate degree in Aeronautical and Astronautical Engineering from MIT, and a Doctor of Medicine from New York University. She completed an intern year in General Surgery at the University of Chicago. She is residency-trained and board-certified in Aerospace Medicine through the University of Texas Medical Branch (UTMB) program in Galveston, TX, as well as in Emergency Medicine through the University of Florida.

Dr. Moynihan was originally hired as a Wyle contracted flight surgeon for NASA in 2005, supporting crew training and operations in Star City, Russia, for 5 years. She served as a NASA flight surgeon for 16 years, has worked as a crew surgeon on 7 ISS missions and 2 Shuttle missions, and has supported over 10 long-duration Direct Return missions. Prior to her role as the Deputy CMO for JSC, she served as the Deputy Branch Chief of the Space and Occupational Medicine Branch at JSC for 2 years.

Dr. Moynihan has been a member of AsMA throughout her career and was named an AsMA Fellow in 2019. She has supported the Space Medicine Association in previous years as a Member-at-Large and as Treasurer (2011–2013). She has served the Society of NASA Flight Surgeons as a Member-at-Large (2018–2021) and as the 2nd Vice President and the 1st Vice President of the organization.

Dr. Moynihan's awards include the Lyndon B. Johnson Superior Achievement Award for exemplary commitment to the health and needs of the crew, the Lyndon B. Johnson Group Achievement Award for outstanding work responding to real-time medical issues on ISS, the NASA Group Achievement Award for Soyuz Landing Medical Team operations, and the SLS Director's Commendation Award for excellence in medical management of and support to an ISS mission. She has published and presented on the topics of telemedicine, medical operational support of space missions, and acute care in space medicine.

Johnson Continues as AMSRO President

Benjamin Johnson, M.D., M.Sc., is beginning his second term as President of the Aerospace Medicine Students and Residents Organization (AMSRO). He is currently in his first year of the Stanford Emergency Medicine Residency. He is passionate about creating opportunities for students and young professionals in medicine and allied health fields to engage with the field of aerospace medicine through hands-on experiences, shadowing, mentorship, scholarships, and early leadership roles. This is his fourth year on the AMSRO

See 'Johnson,' p. N43



Executive Committee. He was the recipient of the 2020 Anita Mantri, Ph.D., Memorial Travel Scholarship.

Dr. Johnson recently graduated from the Johns Hopkins University School of Medicine, where he conducted research on space radiation biology and the neurovestibular effects of spaceflight. Through the UK Marshall Scholarship, he holds an M.Sc. in Human Cognitive Neuropsychology from University of Edinburgh, researching team psychology in Antarctica, and an M.Sc. in Space Physiology and Health from King's College London. His research in Aerospace Medicine is wide-ranging, including presenting twice at the Aerospace Medical Association's (AsMA's) Annual Scientific Meeting on changes in the human microbiome in isolation and interning at NASA Johnson Space Center in the Behavioral Health and Performance Laboratory. He continues to be an active member of the AsMA community and advance the cause of students and residents who represent the next generations of aerospace medicine leadership.

In Memoriam: Willard Meader

AsMA Home Office staff were saddened to hear of the passing of Willard (Bill) L. Meader on June 3, 2023. He was born in New Buffalo, MI, and grew up in Philadelphia, Cleveland, and Pittsburgh. He graduated from Avonworth High School, in Ben Avon, PA, in 1950. At Albion College in Michigan, he was an ATΩ and played varsity football and was named a distinguished alumnus in 1985. After graduating from Temple University School of Medicine, he interned at Butterworth Hospital, Grand Rapids, MI, and then entered the U.S. Air Force.



Dr. Meader was an Air Force flight surgeon for 30 years. He was board certified in aerospace medicine, earning an M.P.H. at the University of California and serving at bases in Labrador, Texas, Arizona, California, Nebraska, South Vietnam, England, Louisiana, District of Columbia, Maryland, Nevada, Hawaii, and Ohio. He cared for air and ground crews of B-52s, U-2s, KC-135s, F-100s, RF-4Cs, C-130s, C-123s, C-124s, C-141s, F-4Ds, C-47s, F-15s, and many other transport and utility aircraft. He was a graduate of the Industrial College of the Armed Forces in 1975. He was recognized with several awards and decorations, culminating with the USAF Distinguished Service Medal.

Dr. Meader served as president of the Society of USAF Flight Surgeons and the Space Medicine Branch of the Aerospace Medical Association and was a Fellow of the Aerospace Medical Association, the American College of Preventive Medicine, the American College of Physician Executives, and the American College of Occupational and Environmental Medicine. After his retirement as a brigadier general in 1989,

he took a position as the president of Hanford Environmental Health Foundation in Richland, WA. That was followed by a position as regional vice president of Group Health Northwest, until his retirement in 1997. He was active in various civic organizations in the TriCities, including the Lewis & Clark Chapter of the Military Officers Association of America, Richland Rotary, the Foundation Board of Kadlec Regional Medical Center, a physician recruitment program for the TriCities, and a chronic pain committee with Our Lady of Lourdes Medical Center.

In Memoriam: Leonard Thompson

AsMA Home Office Staff were saddened to hear of the death of Air Commodore (Dr.) Leonard J. Thompson in early June. He was a long-time AsMA member and became an AsMA



Fellow in 1981. He was the first doctor in New Zealand to make aviation medicine a full-time career starting in 1951. He began flying at the Otago Aero Club on an ATC scholarship in 1950 and then joined No. 3 CMT Aircrew Course at Taieri Air Force Station. He was then posted to No. 4 Territorial Squadron and completed the "Wings" course at Royal New Zealand Air Force's (RNZAF's)

Station Wigram, graduating with "Special Distinction."

Dr. Thompson was posted back to No. 4 Territorial Squadron in 1954 and attended the Otago Medical School, Dunedin, where he qualified in 1957. He joined the air force as a regular in 1960 and was posted back to RNZAF Station Wigram, taking over as commanding officer of the Aviation Medicine Unit (AMU). He attended the 3rd Congress of the International Board of Aviation Medicine [which later became the International Academy of Aviation and Space Medicine (IAASM)] in Paris in 1961 and afterwards visited the Royal Air Force Institute of Aviation Medicine in Farnborough, where he met the British aviation medicine leaders of those days. In 1963, he earned a Masters in Aviation Medicine in the United States, where he also validated his New Zealand Commercial Pilot License and became heavily involved in parachuting.

When Dr. Thompson returned to New Zealand in 1966, he was posted to the Defence Environmental Medicine Unit at Clark House, Hobsonville, where the AMU had been relocated. He also served as Commanding Officer of New Zealand Forces' Medical Team in Bon Song, Vietnam, in 1969. He set up the New Zealand Forces Hospital in Singapore in 1975. During his career, he was the commanding officer of the AMU during three separate postings, Director General Defence Medical Services until 1980, and then Air New Zealand's Principal Medical Officer until 1994.

Dr. Thompson was the first New Zealand doctor to be elected a member of IAASM, serving as Director and then Secretary General in 1994. He was also vice-chair of the International Air Transport Association's Medical Advisory Committee and founding Chair of the International Airlines Medical Advisory Committee. He was a Past President of the Airline Medical Director's Association (now the International

See 'Thompson,' p. N44

From 'Thompson,' p. N43

Airline Medical Association). He was appointed a member of the Most Excellent Order of the British Empire in 1969 for service to Aviation Medicine and was recognized in 2016 with the Paul Tissandier Award from the Fédération Aéronautique Internationale (FAI).

Obituary Listing: Charles O. Barker

AsMA HQ Staff were saddened to hear of the death of Charles O. Barker, M.D., M.P.H., MTS. A native of Georgia, he received his graduate education and medical training at Emory University School of Medicine, Johns Hopkins School of Public Health, and Southern Methodist University Perkins School of Theology. He was board-certified in Family Medicine and Aerospace Medicine. His career spanned 15 years in private practice and 20 years in Navy medicine. In 2010, Dr. Barker founded Compassionate Dallas/Fort Worth, a non-profit organization that promotes compassion and compassionate action in the Dallas/Fort Worth area. He served as Chair of the Board of Trustees, and on the Governance Committee of the international Charter for Compassion. He was a Fellow of the Aerospace Medical Association and had been a member for over 20 years.

New Members

AsMA welcomes 49 new members in July.

- Abu Hamdeh, Amineh; Clayton, NC, United States
- Acevedo, Anthony; Luke AFB, AZ, United States
- Algoul, Mohammad; Hattiesburg, MS, United States
- Al-Harasis, Mutasem; Amman, Jordan
- Bogart, Aaron; Seattle, WA, United States
- Butt, Sabrina; Malvern, PA, United States
- Chandra, Abhilash; Craighburn Farm, South Australia, Australia
- Das, Saswati; Agartala, Tripura, India
- Diaz Artiles, Ana; College Station, TX, United States
- Ditelberg, Sarah; Forest Park, IL, United States
- Dotz, A.; Concord, NH, United States
- Dulin, Nicholas; Philadelphia, PA, United States
- Duquette, Allison; Phoenix, AZ, United States
- Fabrega, Sofia; Phoenix, AZ, United States
- Formanek, Blake; New Orleans, LA, United States
- Giordano, Jordan; Bronx, NY, United States
- Gonzalez, Jorge; Nogales, AZ, United States
- Gorthi, Gitika; Herndon, VA, United States



The **Aerospace Medical Foundation** is working to accelerate its efforts by empowering the next generation of Aerospace Medicine scientists who will take humans to deep space. In order to achieve

these objectives, they are setting a goal in the "Need for Speed" campaign of \$5 million by AsMA's 100th Anniversary! Donations can be in cash or stock by credit card or PayPal through the AsMAFoundation.org website. **AsMA Members:** consider joining the Heritage Society and include the Foundation in your estate planning.

Support the Foundation!

- Harney, Maria; Wrightwood, CA, United States
- Helgeson, Jana; San Diego, CA, United States
- Jin, Jack Z.; Calgary, Alberta, Canada
- Jones Williams, Cierra; Laughlin AFB, TX, United States
- Khan, Mohammad; Cheadle, United Kingdom
- Khanal, Kapil; Malarani, Nepal
- Kopacko, Patrick; Mountlake Terra, WA, United States
- Liang, Stephen; Chesterfield, MO, United States
- Linehan, Matthew; Massapequa, NY, United States
- Llauguet, Alexander; Orlando, FL, United States
- Migaki, Wakako; Yashio City, Japan
- Morais, Lenexa; Gainesville, FL, United States
- Moreno, Angelita; MCAS Cherry Point, NC, United States
- Moreno Lozano, Pedro; Barcelona, Spain
- Nelson, Nicolas; Philadelphia, PA, United States
- Newton, David; Oklahoma City, OK, United States
- Ngo, Mark; Plano, TX, United States
- Okamura, Yui; Ichikawa-Shi, Japan
- Persson, Ashley; Omaha, NE, United States
- Puri, Kevin; Colorado Springs, CO, United States
- Razmara, Ashkaun; Denver, CO, United States
- Rice, Connor; Komoka, Ontario, Canada
- Smith, Lilly; Apex, NC, United States
- Steffes, Rachel; Kansas City, MO, United States
- Sumner, Austin; Burlington, VT, United States
- Tapley, Bobby; Birmingham, AL, United States
- Tashan, Basak; Munich, Germany
- Tenenbaum, Max; Pacific Palisades, CA, United States
- White, Julian; Virginia Beach, VA, United States
- Whitis, Julie; Baltimore, MD, United States
- Xu, Michael; Carmel, IN, United States

AsMA welcomes back five returning members:

- Langenberg, Matthew; Sandusky, OH, United States
- Lim, Jeongku; Geyonggido Gimpo, South Korea
- Mai, Khanh; Corpus Christi, TX, United States
- Miller, Craig; Pittsford, NY, United States
- Yuliawati, Inne; Jakarta, Indonesia

MEETINGS CALENDAR

Please check the websites of meetings listed to see updates.

HFACS Workshops: For more information, please visit <https://www.enrole.com/erau/jsp/course.jsp?categoryId=&courseId=HFAC> (in-person) & <https://www.enrole.com/erau/jsp/course.jsp?categoryId=558570F8&courseId=QHFA> (online).

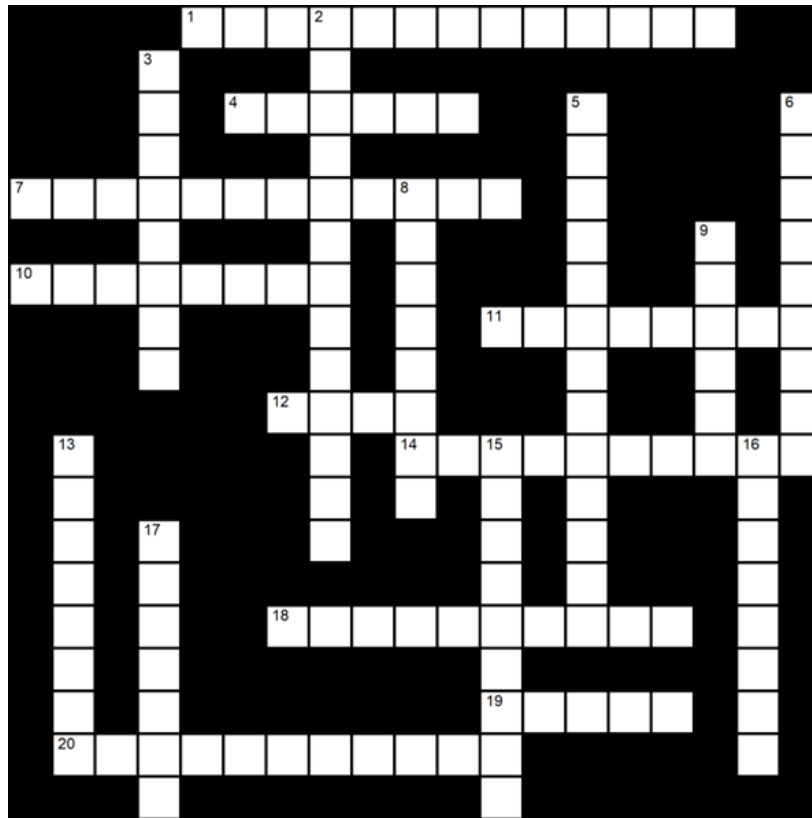
IAF Space Conversations: International Astronautical Federation (IAF) Global Networking Forum Space Conversations Series; ONLINE, 14:00 Paris time, fortnightly live webinars regarding developments in space. Please visit www.iafastro.org/events/iaf-gnf-space-conversations-series/ for more.

Sept. 28-Oct. 21, 2022; Advanced Aeromedical Examiners Course; Oslo, Norway. This course is designed to meet EASA's requirements. For more information, please see the [flyer](#) or visit [ESAM](#) or the [ESAM Academy](#).

Monthly Crossword

by Lt. Col. (Dr.) Srihari Iyer K, Flight Surgeon

This is a new feature we hope readers will enjoy. The solution is on p. 47.



ACROSS.

1. Disinfestation in aircrafts is done using _____. (6,7)
4. A rain cloud is also addressed as cloud _____. (6)
7. _____ goggles have been shown to prevent retinal slip and may be an effective alternative for the prevention of motion sickness. (11)
10. _____'s equation can be used to predict the rate of decompression. (8)
11. _____ was the name of the command module of the Apollo 11 mission. (8)
12. A sudden and significant form of drag produced when an aircraft approached the critical mach number is called as _____ drag. (4)
14. 'R' in CREEP factors for crash survivability stands for _____. (10)
18. IAS corrected for position error and instrument error is called as _____ airspeed. (10)
19. Aviator's astralgus is a fracture of _____ bone. (5)
20. _____ is recommended as prophylaxis for space motion sickness. (11)

DOWN.

2. _____ crystal test is done to detect blood of birds in the event of a bird strike. (13)
3. _____ seats are used in rotor aircrafts to protect aircrew in event of an impact. (8)
5. Who was the pilot of the aircraft in which the first passenger fatality occurred in history of aviation?
6. During descent with blocked eustachian tubes, the gas volume in the middle ear _____. (9)
8. _____ is considered as the Father of Hyperbaric Medicine. (4,4)
9. Ozone concentration is measured in _____ units. (6)
13. Of all the illusions _____ is the most dangerous illusion a pilot can encounter. (8)
15. Dew point is the temperature which air must be cooled to become _____ with water vapour already present in air. (9)
16. _____ test is used to detect carbon monoxide poisoning. (8)
17. The first physician to go to space was _____. (7)

NEWS OF CORPORATE MEMBERS

Leidos and Aalyria Join Forces

Leidos and Aalyria, a new enterprise in advanced networking and communications, announced they will join forces to integrate Aalyria's Spacetime networking technology with Leidos' global-scale network management and protection for critical government missions. By integrating Spacetime, the companies are developing multi-domain capabilities that are secure, resilient, and capable of spanning air, land, sea, and space. Leidos has begun simulating the large-scale critical national-state networks it helps manage, such as the Defense Information Systems Agency's (DISA) Defense Information Systems Network (DISN), using Aalyria's unique technology with the aim of developing an operational decision support and orchestration solution for the companies' government customers. As a systems integrator, Leidos will use its enterprise-scale development capabilities and engineering expertise to integrate Aalyria's advanced network routing software platform, Spacetime, with Department of Defense enterprise IT network orchestration and tactical terrestrial, airborne, and space-based data links. Leidos is working to develop unique complements to the Spacetime platform.

—Please visit <https://www.leidos.com/insights/leidos-and-aalyria-joining-forces-revolutionize-security-and-resiliency-complex-global> for more on this.

Mayo Clinic Ranked Among “Best Children’s Hospitals”

Mayo Clinic Children's Center in Rochester is ranked No. 1 in Minnesota, according to *U.S. News & World Report's* 2023–2024 “Best Children's Hospitals” rankings. Nationally, Mayo Clinic Children's Center ranked as a top-performing children's hospital in eight of the pediatric specialties considered in the rankings. The rankings identify the top 50 children's hospitals in each of 10 specialties considered. Specialty rankings demonstrate broad-based excellence and the effectiveness of the team-based approach that is the hallmark of the Mayo Clinic Model of Care. Mayo Clinic Children's Center continues to be No. 1 in *U.S. News & World Report's* “Best Children's Hospitals” rankings for the 5-state region of Iowa, Minnesota, North Dakota, South Dakota, and Wisconsin.

—Please see <https://newsnetwork.mayoclinic.org/discussion/mayo-clinic-ranked-among-best-childrens-hospitals-by-us-news-world-report/> to read more.

UTMB Receives Grant to Study Nursing Home Visit Bans

UTMB researchers have received funding for a new study, “Nursing homes' visitation bans during the COVID-19 pandemic: effectiveness and consequences,” from the National Institute on Aging, a component of the National Institutes of Health. The 4-year study will be conducted with a team at UTMB including Dr. Huiwen Xu, Dr. James Goodwin, Dr. Yong-fang Kuo, and Dr. Shuang Li. Outside collaborators include Dr. John R. Bowlblis and Dr. Jennifer Heston-Mullins from Miami University of Ohio. Visitation bans in nursing homes were a major policy intervention in response to the COVID-19 pandemic, yet there is limited knowledge regarding their effectiveness in COVID-19 prevention or the unin-

tended adverse effects on residents and care practices in nursing homes. By linking data on visitation bans with national Medicare claims and assessment data, the researchers will conduct a convergent parallel mixed methods study to examine the effectiveness and adverse consequences of visitation bans in nursing homes, with a special focus on residents with Alzheimer's disease and related dementias. The research findings will help policymakers better understand the full impact of this controversial mitigation measure.

—Please visit <https://www.utmb.edu/spph/about-us/news/article/news/2023/06/15/new-grant-to-study-nursing-homes-visitacion-bans-during-the-covid-19-pandemic> for more.

ALPA Commends FAA for Secondary Barrier Rule

At a press conference together with the Federal Aviation Administration (FAA) and other pilot unions, the Air Line Pilots Association, Int'l (ALPA), commended the aviation regulator for issuing the final rule for the implementation of secondary barriers. Published in mid-June, the long-overdue final rule will mandate the installation of secondary barriers on all newly manufactured aircraft within 2 years. Mandated by Congress in the Federal Aviation Administration Reauthorization Act of 2018, ALPA has been a strong proponent of these lightweight security devices that have proven effective in creating a physical barricade to help prevent hostile individuals from reaching the flight deck while its door is opened during flight. ALPA continues to work on addressing the retrofitting of existing airliners and installing primary barriers on cargo aircraft.

—Please see <https://www.alpa.org/news-and-events/newsroom/2023-06-14-faa-issues-final-rule-secondary-barriers> to read more.

KBR Awarded Feasibility Study Contract

KBR announced it has been awarded a feasibility study contract by Southern Rock Energy Partners to support the development of a first-of-its-kind refinery in Cushing, OK. Southern Rock's proposed 250,000-bpd refinery will be powered by solar, wind, waste heat, and geothermal energy and consume hydrogen and oxygen as a fuel source, making it a truly cutting-edge refinery with the goal of becoming net zero carbon, and the first truly green refinery in the United States. Under the terms of the contract, KBR will provide expert consulting services, including a feasibility study in the formative stages of the project, and key technical information for the individual process units. KBR will focus on incorporating best practices into the design that will reduce emissions of greenhouse gases (GHG) with the potential for future reduction of GHG for a sustainable operation.

—Please visit <https://www.kbr.com/en/insights-news/press-release/kbr-awarded-feasibility-study-support-next-generation-green-refinerykbr> for more on this.

Want to see your company's news here?

Corporate Member benefits include discounted advertising & meeting rates. If your company isn't a member, visit <https://www.asma.org/for-corporations> to learn more.

Martin-Baker Continues Agreement with Sikorsky

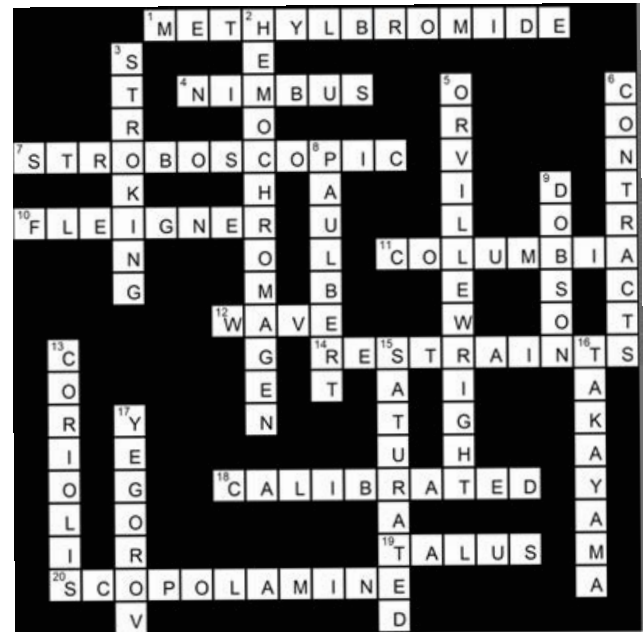
Martin-Baker is pleased to announce its continued agreement with Sikorsky, a Lockheed Martin company, for the supply of troop seating on Black Hawk helicopters. Per the latest multi-year contract, the helicopters with Martin-Baker's seats are delivered to the U.S. Army, as well as numerous international Black Hawk customers, for use in a wide range of missions, including troop transport, search and rescue, medical evacuation, disaster relief, aerial firefighting, and border patrol. Martin-Baker's legacy of military seats has been qualified on the Black Hawk since 2005, and to date has delivered over 15,000 troop, gunner, and operator seats.

—Please see https://martin-baker.com/news_events_post/martin-baker-continue-to-supply-sikorskys-black-hawk-troop-seats/ to read more.

Corporate News Bites

MedAire: All Nippon Airways and MedAire are working together to identify, assess, and understand risks to flights both in the air and on the ground. The Star Alliance member said the MedAire partnership will ensure it makes informed decisions that will keep its operations running smoothly and securely. To read more about this, please visit <http://www.orientaviation.com/articles/9953/all-nippon-airways-partners-with-medaire-to-enhance-security-intelligence>.

Crossword Solution



Reminder to Members: A year ago, the journal became electronic only as the member benefit. Members can purchase a print subscription for \$100/year.



CALL FOR AUTHORS

- ▶ Join a project spearheaded by the History and Archives Committee as we prepare for the upcoming 100th anniversary of AsMA in 2029!
- ▶ The Committee is seeking **authors interested in contributing a chapter to a book** that examines the ways in which the fields of aviation and aerospace medicine have changed over the past century, as reflected by our Society through the years.
- ▶ Help us celebrate the history of our organization and the innovations in our field that many of you have not only witnessed but engineered.
- ▶ Please **contact Committee Chair Walt Dalitsch** at walt3@dalitsch.com if interested.

*AsMA wishes a happy and prosperous summer to all our members
To our American colleagues, we wish a safe and fun Independence Day.*

