2022 Award Winners of the Aerospace Medical Association

Honors Night Ceremonies of the 92nd Annual Scientific Meeting of the Aerospace Medical Association were held May 26, 2022 at the Peppermill Resort Hotel, Reno NV. Nineteen awards for outstanding contributions in aerospace medicine and human performance were presented (the Clark and Klinker Awards were not presented). The presentations were made by Dr. James DeVoll, President of the Aerospace Medical Association, assisted by the chair of the Awards Committee, Eric Olins, M.D., and Dwight Holland, M.D. The winners were recommended by the Awards Committee and approved by the Executive Committee of the Aerospace Medical Association. Awards were also presented by the Undersea and Hyperbaric Medical Society .

ADMIRAL JOHN C. ADAMS AWARD

Lina Maria Sanchez Rubio, M.D., Ph.D., Col., COLAF(Ret.), FAsMA

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

Lina Maria Sanchez Rubio, M.D., Ph.D., FAsMA, Col., COLAF(Ret.), was the 2022 recipient of the Admiral John C. Adams Award for her 32-yr career contributing to operational aerospace medicine. Formerly Surgeon General of the Colombian Air Force, and Director of its Medical Center, she continues to serve as the Medical Examiner for the Colombian Civil Aviation Authority. She has left an indelible mark in the clinical practice, risk management, education, and medical certification components of both military and civil aerospace medicine operations.

Born in Ibague, Colombia, Dr. Sanchez Rubio earned a Bachelor´s degree with honors, receiving the Andres Bello Medal of the Colombian Ministry of Education in 1982. She received her Medical Doctor degree from Nueva Granada Military University Medical School, with honors at the top of her class, and was awarded the University Merit Medal in 1988. She completed her aerospace medicine education at the Colombian, Argentina, Brazilian, and the U.S. Air Forces; and further education at University of Texas Medical Branch (Aerospace Medicine Course), the Civil Aviation Medical Institute of the Federal Aviation Administration (International Rotation in Aerospace Medicine and Human Factors), and the ETC Aeromedical Training Institute (Aerospace Physiology Training Course). She earned a Ph.D. in Public Health, with honors, from National University of Colombia, which conferred the Merit Award on her in 2010. Her doctoral thesis on the Study of the Human Factor in Colombian Aviation Accidents helped to increase understanding of the role of human factors in aviation accidents and generated significant data that permit direct comparison with studies in several countries, contributing to aircrew performance, harmonization, standardization, and aviation safety.

From 1998–2018, she was an Otolaryngology Specialist at the Colombian Air Force Aerospace Medical Center and University Teaching Specialist (2013) from Nueva Granada Military University. She was Medical Officer of the Colombian Air Force (COLAF) for 30 years (1988–2018). There she served as flight surgeon, aviation safety officer, medical specialist, professor, researcher, Director of the Aerospace Medical Center, and Surgeon General. She was recognized as one of the best officers of the Colombian Air Force with the Excellence Award in 2009. Additionally, she has been aviation medical examiner and advisor of the Colombian Civil Aviation Authority since 1993; and adjunct professor at the Nueva Granada Military University, National University of Colombia and the COLAF Postgraduate School.

Dr. Sanchez Rubio led the scientific and technological development of the COLAF Aerospace Medical Center-CEMAE, contributing to development of the military and civil aerospace medicine in Colombia, and achieved the U.S. Air Force Certificate of Recognition to its Aerospace Physiology Training Program in 2013. She directed the multidisciplinary team that structured and implemented the COLAF Aerospace Medical Center Programs to generate optimal conditions for flight operations. As COLAF representative, she became part of the specialized team and advisory committee (formed by Dr. Jorge Behaine) that created the Aerospace Medicine Residency Program of the National University of Colombia in agreement with the COLAF and Civil Aviation Authority in 2002.

Dr. Sanchez is member of the Colombian Otolaryngology, Head and Neck Surgery Association (ACORL); a Fellow of Aerospace Medical Association (AsMA); a member of Aerospace Human Factors Association (AsHFA) and the International Academy of Aviation and Space Medicine (IAASM); Past President of the Colombian Aerospace Medical Association; and Past President of the Iberoamerican Association of Aerospace Medicine. At present, she continues working in academic and research activities and advising military and civilian institutions.

Nominate a Colleague for an AsMA Award!

The nomination form and rules are on our website at: https://www.asma.org/members-only/award-nominations. There is an online submission form linked to this page. For more information, you can contact the Chair, at: awards@asma.org. Deadline for submissions is January 15.

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LOUIS H. BAUER FOUNDERS AWARD

Marian B. Sides, Ph.D., M.S.N., FAsMA

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.

Marian B. Sides, Ph.D, MSN, FAsMA, is the 2022 recipient of the Louis H. Bauer Founder's Award for her dedication to aerospace medicine throughout her career. Dr. Sides is a visionary who has made significant contributions to aerospace medicine. She is universally recognized as a leader, innovator, and mentor. As president of Education Enterprises Inc., Dr. Sides has mentored numerous medical students, nurses and scientists, providing stipends, scholarships, and financial awards for scientific papers. Dr. Sides presented over 40 scientific papers, developed and chaired 30-plus panels.

Dr. Sides graduated from the University of Chicago in 1984 with a Ph.D. in Higher Education in the Division of Social Sciences. Prior to that, she received a Master's degree as a Clinical Nurse Specialist, from Loyola University in Chicago, and a BSN from DePaul University in Chicago. Shortly after completing her graduate education, she began teaching as an adjunct clinical professor, and worked concurrently as a clinical nurse. Through the years, she instructed, coached, and tutored over 10,000 health care professionals to successfully pass their licensure examinations, and secure meaningful employment.

Dr. Sides joined the U.S. Air Force in 1978, served in Operation Desert Storm, was Commander of the 63rd/928th Aeromedical Evacuation Squadron, and retired in 2004, as a Colonel. She advanced the understanding of the stresses of flight on the human body during air transport as she employed best practices in patient care. Her operational command positions include Troop Commander, Operation Desert Storm, and Field Commander, Operation Provide Comfort. She flew 26 aeromedical evacuation sorties, leading in-flight care for 300 enemy prisoners of war and allied injured. She received the Mary T. Klinker Award for aeromedical evacuation and humanitarian mission support. She is an experienced squadron commander with over 1800 flying hours.

Dr. Sides became a member the Aerospace Medical Association (AsMA) in 1982. Her experience has been a labor of love for over 40 years. A Fellow of AsMA, she served as president of AsMA in 2010–2011. She has served in leadership roles in many constituent organizations, committees, and key work processes. Dr. Sides chaired the AsMA Corporate Membership Committee for 10 years, and was Founder and Chair of the Corporate Forum. An AsMA Foundation member, she ensured funding for the Mary F. Foley Endowment and the Inaugural AsMA Foley Panel. Dr. Sides is also a member of the AsMA ad hoc Committee on creating a repository of available information for Commercial Space Travel.

Dr. Sides organized Bellagio I, International Congress, in Italy in 2004, exploring 'Cardiovascular Risks of Spaceflight' and Bellagio II, 'Space Medicine: Terrestrial Applications' in 2017. Her dynamic leadership continues to inspire and nurture the development of aerospace professionals and scientists around the world. She is past president and member of the Aerospace Nursing Society and a member of the Space Medicine Association.

In 2011, Dr. Sides was inducted into the International Academy of Aviation and Space Medicine, as an Academician, during the meeting in Singapore. She led the development of the strategic plan of the IAASM, which was accepted by the Council in 2018 in Bangkok, Thailand. She developed a Mentorship Handbook in 2021 to guide academy members in developing a younger generation within the industry of aviation and space medicine. She is currently Chair of the Corporate Membership Committee of IAASM.

Dr. Sides has earned numerous commendation medals throughout her military career, including: Meritorious Service Medal, with three Oak Leaf Clusters; Commendation Medal, with Oak Leaf Cluster; Air Medal, Operation Desert Storm; Air Force Outstanding Unit Award; five Combat Readiness Medals; Kuwaiti Liberation Medal, Operation Desert Storm; National Defense Service Medal; Southwest Asia Service Medal; and the Humanitarian Service Medal, Operation Provide Comfort. She has also received many civilian honors, including: Sigma Theta Tau National Honor Society in Nursing; the1989 Brigadier General E.A. Hoefly Award for Outstanding Contributions to Nursing and Clinical Excellence from the Aerospace Nursing Society; and she was the 1997 Honorary Member of the "Wing" of AsMA.

BOOTHBY-EDWARDS AWARD

Ian Hosegood, MBBS, FRACGP, FRACMA, FACAsM, DAvMed, PGDipOEM

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 1961–73, and then alternately until 1985.) Sponsored by Harvey W. Watt and Company.

Ian Hosegood, MBBS, FRACGP, FRACMA, FACAsM, DAvMed, PGDipOEM, is the 2022 recipient of the Boothby-Edwards Award for his consistent outstanding contributions in the field of pilot health. Dr. Hosegood is an experienced Aviation Medicine Specialist and has specialist qualifications in Family Medicine, Occupational

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Medicine, and Medical Management. His entry to aviation medicine was through the Royal Australian Air Force (RAAF) where he held various senior roles including time at the Institute of Aviation Medicine and an exchange posting to the UK where he completed his Diploma in Aviation Medicine at Farnborough. Subsequent roles have included Vice President of Clinical Services at Emirates Airlines, Principal Medical Officer at the Australian Civil Aviation Safety Authority and General Manager Health Services with the Royal Flying Doctor Service. Dr. Hosegood is the currently Director of Medical Services with Qantas Airlines based in Sydney, Australia. He teaches Aviation Medicine on various courses and holds an Assistant Professor position at Bond University.

One of Ian's areas of special interest in is aircrew fatigue risk management (FRMS). During his time at Emirates, Ian was involved in the establishment of FRMS. He is the current chair of the Qantas FRMS committee. He is currently one of the researchers behind the so-called Qantas Airlines' Project Sunrise on ultra-long-haul flights. While at CASA he established the Expert Panel on Aircraft Air Quality (EPAAQ) and also chairs a working group within Qantas to examine this issue. While at Emirates he also introduced a system to monitor crew occupational exposure to cosmic radiation. Ian was also deeply involved with the management of alcohol and other drug issues. Whilst Principal Medical Officer (PMO) at the Civil Aviation Safety Authority (CASA) Ian was integrally involved with the development of CASA's AOD program and associated legislation.

In 1990 he received his Medical Bachelor, Bachelor of Surgery (MBBS) from the University of Queensland; in 1996 he earned his Fellowship Royal Australasian College of General Practitioners (FRACGP); and in 1998 he earned his Diploma in Aviation Medicine (UK) - London Royal College of Physicians. He earned a Postgraduate Diploma in Occupational and Environmental Health (PGDipOEH) – Monash University, and Medal of academic excellence in 2008. He was awarded his Fellowship of the Australasian College of Aerospace Medicine (FACAsM) in 2012 and the Royal Australasian College of Medical Administration (FRACMA) in 2013.

Dr. Hosegood is a Board member of the Australasian Society of Aerospace Medicine, as well as the Australasian Medical Review Officer Association. He is a member of the IATA Medical Advisory Group (MAG); Immediate Past President and on Executive Council of the International Airline Medical Association (IAMA – formerly Airline Medical Director's Association); a member of the Royal Aeronautical Society and the Flight Safety Foundation panel on Fatigue in ULR Ops; a Fellow of the Royal Australasian College of General Practitioners and the Royal Australasian College of Medical Administrators; and an Academician of the International Association of Aerospace Medicine.

Dr. Hosegood has received many awards and honors including the Australian Service Medal, United Nations Medal, Australian Active Service Medal, Australian Defence Medal, the National Emergency Medal, and the 2016 George J. Kidera Award from IAMA.

JOHN ERNSTING AWARD

William P. Butler, MD, MTM&H, FACS, FAsMA

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.

William P. Butler, MD, MTM&H, FACS, FAsMA is the 2022 recipient of the John Ernsting Award. The award is given for outstanding research in altitude physiology and/or for longstanding exceptional performance in the education, development, and administration of aerospace medicine and related specialties. As a physician, researcher, academician, and author, Dr. Butler is well recognized for his expansive expertise. He conducted research, consolidated and evaluated data, and presented and published papers resulting in four panels and numerous presentations at AsMA meetings. This unique work culminated in the monograph "Physiological Foundation for Clinical Validation of Aeromedical Evacuation Patients," which is used for education and training at the highest level of military academia and operations. The monograph's significance is that it brings together in one place the physiological basis for clinical validation of aeromedical evacuation patients.

Dr. Butler's research underlying this monograph pioneered the application of tissue oxygen delivery precepts, well-established in ground-based intensive care units, to AE. His work demonstrated how optimizing of tissue oxygen delivery, whether it be with supplemental oxygen, transfusion, or cabin altitude restriction, reduced postflight procedures and postflight complications (i.e., morbidity). His specific focus being both hemoglobin levels and cabin altitude restriction. Dr. Butler also collaborated in the creation of a tissue oxygen delivery calculator graphic-user-interface, thus seriously easing the work of calculating tissue oxygen delivery. Furthermore, his work established the cost (e.g., flight time, fuel cost) for imposing a cabin altitude restriction was not operationally significant. And, he developed additional research-based validation algorithms for employing inflight enteral feeding and the safe transport of military working dogs.

In addition, Dr. Butler proposed and executed the creation of the USAF's first outpatient "surgicenter" housing outpatient surgery, minor surgery, upper and lower endoscopy, and surgery clinic services, upping Malmstrom AFB, MT surgical services productivity by 200%. This Same Day Surgery Center served as a model for the USAF Super Clinic.

Dr. Butler earned his B.S. in Biology from the College of William and Mary in 1975 and his M.D. from the University of Virginia in 1979. His Internship and General Surgery Residency were performed at The Western Pennsylvania Hospital in Pittsburgh, PA, com-

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pleting his surgical training in 1984. Later, he obtained Fellowship training in Clinical Hyperbaric Medicine at the Davis Hyperbaric Laboratory, Brooks AFB, TX, completing it in 1996. In 2001, he concluded a dual residency in Aerospace Medicine and Preventive Medicine at the USAF School of Aerospace Medicine, Brooks AFB, TX. As part of those residencies, in 1999, he earned his Masters Degree in Tropical Medicine and Hygiene at the Uniformed Services University of the Health Sciences (USUHS). His academic work during those three training years produced six presentations and five peer-reviewed papers.

Dr. Butler has practiced clinical medicine as a General Surgeon, Hyperbaricist, and Flight Surgeon. He has also been an academician, from Clinical and Fellowship Directors for the Davis Hyperbaric Laboratory to Clinical Associate Professor (Anesthesiology), University of Texas Health Science Center, San Antonio, TX, to Assistant Professor (Aerospace Medicine) at USUHS to his current position as a Professor (Aerospace Medicine) at the USAF School of Aerospace Medicine. He is also the present Chair, Aerospace Medicine Fellowship Residency Advisory Committee, Mayo Clinic, Rochester, MN. Moreover, Dr. Butler carries the USAF Chief Flight Surgeon designator and is retired from the USAF after 28+ years' service.

Dr. Butler is board certified in General Surgery, Diving & Hyperbaric Medicine, Wound Management, Tropical Medicine & Hygiene, Public Health & General Preventive Medicine, and Aerospace Medicine. In addition, he carries the United States Air Force (USAF) Special Experience Identifier Academic/Clinical Grandmaster in both Hyperbaric Medicine and Aerospace Medicine. Dr. Butler is a Fellow of the American College of Surgeons and the Aerospace Medical Association. Some of his previous honors include Air Force Association (Texas) Clinician of the Year, five-time Instructor of the Year for the USAF School of Aerospace Medicine Advanced Aerospace Medicine for International Medical Officers Course, invited expert to the USAF Surgeon General's Strategic Planning conferences for En Route Care Research and Human Performance Research and Cabin Altitude Restriction, Squadron Commander, Deputy Group Commander, and United States Central Command Theater Validating Flight Surgeon (Al Udeid, Quatar).

KENT K. GILLINGHAM AWARD

Peter A. Hancock, D.Sc., Ph.D.

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.

Peter A. Hancock, D.Sc., Ph.D., was the 2022 recipient of the Kent K. Gilllingham Award. Dr. Hancock has made numerous core contributions concerning the science of situation awareness from empirical explorations thereof, with theoretical and practical explanations concerning the way which situation awareness impacts safety and performance of differing member constituencies of the aviation community to examining the critical links between situation awareness, adaptability, and resilience in pilots responses to rare, unusual, and critical in-flight events. He has used these insights to improve the design and operational effectiveness of all aviation and aerospace systems.

Dr. Hancock, is Provost Distinguished Research Professor in the Department of Psychology and the Institute for Simulation and Training, as well as at the Department of Civil and Environmental Engineering and the Department of Industrial Engineering and Management Systems at the University of Central Florida (UCF). At UCF in 2009 he was created the 16th ever University Pegasus Professor (the Institution's highest honor) and in 2012 was named 6th ever University Trustee Chair. He directs the MIT2 Research Laboratories. Prior to his current position he founded and was the Director of the Human Factors Research Laboratory (HFRL) at the University of Minnesota where he held appointments as Professor in the Departments of Computer Science and Electrical Engineering, Mechanical Engineering, Psychology, and Kinesiology, as well as being a member of the Cognitive Science Center and the Center on Aging Research. He continues to hold an appointment as a Clinical Adjunct Professor in the Department of Psychology at Minnesota. He is also an affiliated Scientist of the Humans and Automation Laboratory at Duke University, a Research Associate of the University of Michigan Transport Research Institute, and a Senior Research Associate at the Institute for Human and Machine Cognition in Pensacola, Florida. He is also a member of the Scientific Advisory Board of the Hawaii Academy.

Prof. Hancock attended Loughborough University, Loughborough, England, receiving his Certificate of in 1975, his B.Ed. (Honors) in Anatomy and Physiology in 1976, his M.Sc. in Human Biology in 1978, and his D.Sc. in Human-Machine Systems in 2001. He also received a Ph.D. in Human Performance from University of Illinois, Champaign, IL in 1983.

Prof. Hancock is the author of over 1000 refereed scientific articles and publications and has written and edited numerous books including Human Performance and Ergonomics in the Handbook of Perception and Cognition series; Stress, Workload, and Fatigue; and Performance Under Stress.

Dr. Hancock has collected countless awards including the Sir Frederic Bartlett Medal of the Ergonomics Society of Great Britain for lifetime scientific achievement; the Franklin V. Taylor Award of the American Psychological Association; the Liberty Mutual Prize for Occupational Safety and Ergonomics from the International Ergonomics Association. In association with his colleagues Raja Parasuraman and Anthony Masalonis, he was the winner of the Jerome Hirsch Ely Award of the Human Factors and Ergonomics Society for 2001, the same year in which he was elected a Fellow of the International Ergonomics Association. In 2007 he was the recipient of the John C. Flanagan Award for of the Society of Military Psychologists

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of the American Psychological Association for lifetime achievement and he was also the 2007 recipient of the A.R. Lauer Award of the Human Factors and Ergonomics Society for lifetime contributions to safety.

A Fellow of the Aerospace Medical Association, in 2008, Dr. Hancock was the recipient of the AsMA Raymond F. Longacre Award for outstanding accomplishments in the psychological and psychiatric aspects of aerospace medicine. He is also the recipient of the Aerospace Human Factors Association's Henry L. Taylor Award Founders Award and William E. Collins Award. He also won the Admiral Leland Kollmorgen Spirit of Innovation Award of the Augmented Cognition Society. In 2015 he was presented with the William Floyd Award of the Institute for Ergonomics and Human Factors of Great Britain in which he is a Chartered Fellow and most recently he was made Fellow of the Royal Aeronautical Society of Great Britain.

Prof. Hancock is a multiple-term Member of the National Academy of Sciences, National Research Council's Committee on Human Factors, and in that capacity has served as Chair and Organizer for a number of sub-committees. He is a Fellow and past President of the Human Factors and Ergonomics Society and a Fellow of the Aerospace Medical Association.

Further information can be accessed at his personal website: www.peterhancock.ucf.edu.

WALTER AND SYLVIA GOLDENRATH AWARD

Deborah J. White, Ph.D., CAsP, M.B.A, M.A.

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.

Deborah J. White, Ph.D., CAsP, M.B.A, M.A., was the winner of the 2022 Walter and Sylvia Goldenrath Award. Dr. White was honored for her service to aviation and undersea research and operational communities. Her contributions to physiology and human performance in hazardous environments have led to significant technical and procedural improvements, including detailed assessments of human error in navel aviation mishaps and the development of important considerations when addressing antigravitational countermeasures for women. She was critical in coordinating COVID-19 screening procedures for the mission-critical workforce at the Naval Undersea Warfare Center. She was also instrumental in evaluating hypobaric oxygen-rebreather systems and noise-reducing stethoscopes for critical military operations. Additionally, she was one of the founders of the Aerospace Medicine Student and Resident Organization, one of the Aerospace Medical Association's (AsMA's) constituents.

Dr. White currently serves as a Member-at-Large on the AsMA Council and is the past President of the Aerospace Physiology Society (AsPS). She joined AsMA in 1988 and has been recognized as a Fellow of AsMA. She has been a member of AsPS since 1990, where she oversaw the development of the Aerospace Physiology Board Certification Exam from 2011–2014, and then took over as Exam Treasurer from 2014–2021. She also served as a Member-at-Large on the AsPS Board of Governors from 2016–2019, and then rolled into President-Elect. She has also served as President of the Life Sciences and Biomedical Engineering Branch from 2009–2010.

Dr. White recently retired as a Commander in the United States Navy, having served 24 years as a Physiologist and an Aerospace Experimental Psychologist. Her last duty assignment was with the Naval Undersea Warfare Center Division, Keyport, where she served as a Human Systems Integration (HSI) Project Lead, responsible for providing HSI technical leadership, management oversight, policy guidance, and coordination to the Submarine Force's Virtual Reality Submarine Training Program. She ensured that these areas were focused, relevant, and eminently capable of satisfying current and anticipated force needs. She also provided executive and supervisory leadership and authoritative scientific and technical advice to afford future Naval Air Forces the requisite knowledge and technology for critical warfighting capabilities.

She received her undergraduate degree in Biology from California Polytechnic State University, then attended Wright State University for the initial start of her doctorate degree and completed her Ph.D. in Cardiovascular Physiology at Colorado State University in Ft. Collins. During her summer months she conducted research studies at U.S. Air Force Armstrong Laboratory, both at Brooks City-Base and Wright-Patterson AFB. Prior to entering the Navy, Dr. White worked as an Aeromedical Business Advisor to ML Lifeguard, a UK company that designed and developed safety and survival clothing for both aviation and submarine international services.

In 1997, Dr. White was commissioned as a Research Physiologist in the Navy and served as a research scientist at the Naval Submarine Medical Research Laboratory until 2000. She then transferred to the Aerospace Experimental Psychology community and went to the Naval Aerospace Medical Institute's Aerospace and Flight Training Program. Upon graduation of the program, she went to the Naval Air Warfare Center as Head of the Human Performance Technology Branch until transferring to the Naval Safety Center in 2003. Prior to arriving at the Naval Safety Center, she attended the Naval Postgraduate School's Naval Aviation Safety Officer Program. She then worked at the Naval Safety Center as Head, Human Factors Analysis Branch for 4 years. In Oct 2007, she was requested by Fleet Forces Staff to take a special duty assignment and provide human factors analysis and aviation mishap expertise to the Safety Directorate (N4S). From 2009–2012 she was assigned as Deputy Director, Contract Support Office at the Naval Health Research Center, serv-

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ing as the primary Contracting Officers' Representative on over 10 major Bureau of Medicine research support contracts.

Dr. White earned an M.B.A. in Human Resource Management and Team Building from the University of New Haven and an M.A. in National Security and Strategic Studies degree from the Naval War College. She is also board certified in Aerospace Physiology. Her awards include the NAVSEA Warfare Center Innovation Award, Michael G. Lilienthal Leadership Award, Fred A. Hitchcock Award, Sonny Carter Memorial Award, Medical Service Corps Director's Award, Navy and Marine Corp Meritorious Service Medal (two awards), Navy and Marine Corps Commendation Medal (five awards), Navy Achievement Medal, Navy Meritorious Unit Commendation (two awards), National Defense Service Medal, Global War on Terrorism Service Medal, Military Outstanding Volunteer Service Medal, and Pistol Marksmanship (Sharpshooter).

WON CHUEL KAY AWARD

David Powell, M.D., M.Sc., FAsMA

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.

David Powell, M.D., M.Sc., FAsMA, was the 2022 recipient of the Won Chuel Kay Award for his contributions to international aerospace medicine. Dr. Powell has contributed enormously to the science of fatigue management and has played a pivotal role in the aerospace community by sharing knowledge and best practices to airlines around the world. His activity as medical advisor for IATA has increased the reach of his contributions, particularly during the COVID-19 pandemic. His background blends academic contributions with practical airline medicine; he was faculty at the Occupational and Aviation Medicine Unit at the University of Otago and was also medical director for both Air New Zealand and Virgin Australia. He is an active member of the International Civil Aviation Organization's CAPSCA and CASAG in charge of reviewing scientific evidence emerging from COVID-19.

A native of New Zealand, Dr. Powell earned an M.B.Ch.B. at the University of Auckland in 1986. He holds Diplomas in Aviation Medicine from Otago University and the Royal College Physicians London and a Diploma in Occupational Medicine from the University of Auckland. He is a Fellow of the Royal New Zealand College of General Practitioners and the Australasian Faculty of Occupational and Environmental Medicine.

From 1985–1987, Dr. Powell served as House Officer in Medicine, Orthopaedics, Emergency, Surgery, and Anaesthetics for the Waikato Hospital Board and was in general practice. At the end of 1987 he became the Medical Officer for Royal New Zealand Air Force (RNZAF) Base Auckland in the Defence Environmental Medicine Unit. In 1991 he took a position as Anaesthetics Registrar for the Auckland Area Health Board at Auckland/Middlemore Hospitals and was also in general practice. In 1993 he became Officer Commanding the Aviation Medicine Unit for the RNZAF. He was responsible for providing altitude chamber and aviation medicine training, and was an adviser to commanders in aviation medical matters. In 1995 and part-time in 1996, he also was Emergency Department Registrar at Auckland Hospital and a part-time Medical Officer at a Travellers Health and Vaccination Center. From late 1996 to 1997, he was Medical Officer for Auckland Rescue Helicopter Trust and then, in 1997, he became Chief Medical Officer at Air New Zealand Limited. In that capacity Dr. Powell was the primary physician responsible for occupational health aspects for pilots, as well as other crewmembers and ground staff. During this period he continued his activity in aviation medicine training and education for the pilot population. He chaired the Crew Alertness Study Group. From 2009-2013, he also was a part-time Aviation Medicine Specialist and a part-time private consultant in aviation medicine and airline fatigue management. He expanded his reach internationally, becoming a contributor to ICAO's Task Force on Fatigue Risk Management, as well as an Advisory Board Member for U.S. "HIMS" Alcohol Rehabilitation Program for U.S. Pilots.

An AsMA Fellow, Dr. Powell is a past president of the International Airline Medical Association. He is a member of the Australia and NZ Society of Occupational Medicine, a Past President of the Aviation Medicine Society of Australia and New Zealand, a Fellow of the Australasian College of Aerospace Medicine and the Royal Aeronautical Society, an elected member of the International Academy of Aviation and Space Medicine, and an invited member of the International Air Transport Association Medical Advisor Group.

His awards include the President's Prize for the top student in Diploma in Aviation Medicine, a Technical Cooperation Programme Achievement Award from the Subcommittee on Non-Atomic Military Research and Development, the Arnold Tuttle and Boothby-Edwards Awards from AsMA, the George Kidera Award from the Airlines Medical Directors Association, and a Masters Award for the New Zealand Region from the Guild of Air Pilots and Air Navigators.

Future AsMA Annual Meetings

May 21 – 25, 2023
Sheraton New Orleans Hotel, New Orleans, LA

May 5 – 9, 2024
Hyatt Regency Chicago, Chicago, IL

June 1 – 6, 2025
Hyatt Regency Atlanta, Atlanta, GA

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JOE KERWIN AWARD

Serena Auñon-Chancellor, M.D., M.P.H.

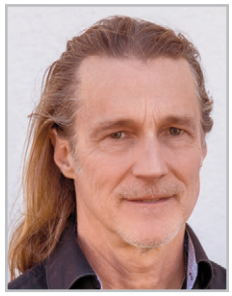
Established and sponsored by KBR in honor of Joseph P. Kerwin, the first physician/astronaut. It is presented for advances in the understanding of human physiology during spaceflight and innovation in the practice of space medicine to support optimal human health and performance in space.

Serena Auñon-Chancellor, M.D., M.P.H., was the 2022 recipient of the Joe Kerwin Award. Dr. Auñon-Chancellor was honored for her research efforts in the study of newly discovered problems of spaceflight-related venous drainage anomalies and the potential for thromboembolism. She conducted hundreds of experiments during a 6-month stay on the International Space Station (ISS) and was co-author of an article describing the condition. She is a subject lead for NASA for the COVID-19 pandemic and the quarantine efforts needed to protect the flight control team and astronauts. During her residency, she supported the evaluation of spaceflight participants and attended the launch of spaceflight participant Charles Simonyi. Her research has resulted in multiple medical publications, and she has provided multiple invited presentations at conferences, including a presentation at the White House. She is an active astronaut representing medical issues related to spaceflight.

Born in Indianapolis, IN, Dr. Auñon-Chancellor received a B.S. from The George Washington University, Washington, D.C., in 1997. She earned her M.D. in 2001 from the University of Texas Health Science Center in Houston. She then served a 3-year residency in internal medicine at the University of Texas Medical Branch (UTMB) in Galveston and then completed a year as Chief Resident in the Internal Medicine Department. She then served a 1-year residency in aerospace medicine in 2007 at UTMB.

Dr. Auñón-Chancellor began her NASA career at Johnson Space Center in 2006 as a Flight Surgeon and spent more than 9 months in Russia supporting medical operations for ISS crewmembers in Star City. She also held the position of Deputy Crew Surgeon for STS-127 and as Deputy Lead for Orion Medical Operations. She was selected in July 2009 as an astronaut and graduated in 2011 from Astronaut Candidate Training. From 2010–2011, she spent 2 months in the Antarctic searching for meteorites as part of the ANSMET Expedition. In 2012, as part of the NEEMO 16 mission, she operated the Deep Worker submersible and subsequently served as an Aquanaut during the NEEMO 20 mission on the Aquarius underwater laboratory. She currently handles medical issues for the ISS Operations and Commercial Crew branches.

Dr. Auñón-Chancellor's awards and honors include the U.S. Air Force Flight Surgeons' Julian Ward Award, an Outstanding UTMB Resident Award, the William K. Douglas Award, and the Thomas N. and Gleaves James Award for Excellent Performance by a third-Year Resident in Internal Medicine. She is a member of the American College of Physicians, the American College of Preventive medicine, and the National Engineering Honor Society, and is an Associate Fellow of the Aerospace Medical Association.



SIDNEY D. LEVERETT, JR. ENVIRONMENTAL SCIENCE AWARD

Jeremy Beer, Ph.D

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.*

Jeremy Beer, Ph.D., is the 2022 recipient of the Sidney D. Leverett Environmental Science Award. The award recognizes an individual who has made a significant contribution in the field of environmental sciences through a publication in *Aerospace Medicine and Human Performance* or by activities conducted in support of aerospace systems operations. Dr. Jeremy Beer is an Aerospace Experimental Psychologist with KBR's Science and Space Group at the Brooks campus in San Antonio. Dr. Beer's research interests include human performance, sensation and perception, vehicle piloting, and spatial orientation.

In 2017 Dr. Beer submitted three publications to our journal, two of which he was the lead researcher, and a third in which he was a coauthor: "Cognitive deterioration in moderate and severe hypobaric hypoxia conditions," 2017; 88(7): 617–626; "Pulmonary effects from a simulated long-duration mission in a confined cockpit," 2017; 88(10), 952–957, and the third, "Hyperoxia and hypoxic hypoxia effects on simple and choice reaction times," 2017; 88(12), 1073–1080, lead author Todd Dart. In addition to these, he has published at least another 19 peer-reviewed research papers. Dr. Beer led the planning, design, and execution of multiple research projects throughout the year, in addition to collecting human performance data. These articles spawned a series of research efforts that directly relate to aerospace systems operations. The work he started continues to this day. Because of his expertise, he is constantly sought for professional consultation and/or guidance when issues surface dealing with aircrew hypoxia and human performance.

After completing his undergraduate study at Princeton University, he completed his doctorate at Columbia University, where he explored moving viewers' perception of extended scenes. His dissertation, "Deriving Position Sense from the Moving Camera," investigated viewers' ability to integrate optic flow over time and identified perceptual distortions resulting from lens and aperture geometry. He then completed a National Research Council fellowship at the Perception/Control of Low-Altitude Flight Laboratory at Wright-Patterson AFB, OH, where he mapped mathematical singularities in the optic

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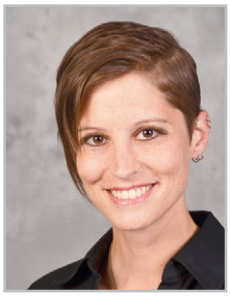
flow field and designed a paradigm to measure effects of visual depth cues on pilots' perception of heading and glideslope. This work confirmed that performance and safety gains can be realized from adding veridical cues to dynamic vehicle displays.

Dr. Beer then came to Brooks to support Air Force Research Laboratory and embarked upon a research career examining human performance in aircraft, maritime, and ground vehicles. He assessed piloting performance in laser glare conditions, supported imaging studies of brain areas involved in self-motion perception, and directed a VA-Sponsored Military Eye Trauma and Vision Restoration research program. When Dr. Beer came to KBR, he assumed responsibility for instituting a dedicated R&D component at Brooks. He designed and secured resources to conduct an integrated group of studies to investigate effects of altitude, acceleration, and lack of exercise in long cockpit missions. These studies served as the foundation for KBR Brooks' R&D portfolio today and are unified in their objective to identify human performance components that are vulnerable in austere operational conditions.

Dr. Beer serves as an instructor in KBR's Centrifuge Flight Environment Training program and has published in peer-reviewed journals including Journal of Experimental Psychology: Human Perception and Performance, Experimental Brain Research, and Aerospace Medicine and Human Performance. As an avocation, he has published creative non-fiction and commentary on topics including art, culture, vintage motorsport, and travel, and continues to serve as a reviewer for peer-reviewed journals including Aerospace Medicine and Human Performance. Dr. Beer remains captivated by the study of sensation and perception in myriad aspects of human life including transportation, navigation, industrial design, architecture, music, art, and cinema.



ERIC LILJENCRANTZ AWARD

Rebecca Blue, M.D., M.P.H.

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 the Aerospace Medical PLC.

Rebecca Blue, M.D., M.P.H., was the 2022 winner of the Eric Liljencrantz Award for her exceptional contributions to the field of aerospace medicine in the areas of linear acceleration exposure of laypersons in the setting of medical comorbidities and psychological risk stratification for potential commercial spaceflight participants. Her efforts have expanded the envelope of previously accepted physiological tolerances and made commercial spaceflight a potential reality to those who traditionally would have been disqualified. She has worked extensively to expand knowledge of the risks of commercial spaceflight, seeking to understand how risks are altered by the inclusion of laypersons. Her study design and investigative work include leading three unique studies over 10 years regarding layperson tolerance to hypergravity exposure. This work has led to a number of highly influential publications providing critical insight into the response of chronic medical conditions to the stresses of launch and re-entry phases of suborbital flight.

Dr. Blue earned a B.S. in Biology at Truman State University in 2003, a Higher Diploma of Social Policy from the University College of Dublin in 2006, and her M.D. at the Georgetown University School of Medicine in 2008. She served an Emergency Medicine Residency at Orlando health from 2008–2011 and then earned her M.P.H. at the University of Texas Medical Branch in 2012. She then served an Aerospace Medicine Residency there from 2011 to 2013. While she was serving the residency in Emergency Medicine, she also was a Research Collaborator at Kennedy Space Center's Biomedical Research Laboratory from 2009–2011. She then became a Medical Consultant and Technical Writer at Noninvasive Medical Technologies from 2011–2013. In 2013, she took a position as a Flight Surgeon and then later an Aerospace Medicine Physician at Virgin Galactic, LLC, during which time she served as Ground Medical Lead, Team Physician for the Red Bull Stratos project. She left Virgin Galactic in 2016. She is currently Research Collaborator at The Mayo Clinic, Arizona, in the Department of Preventive, Occupational, and Aerospace Medicine's Aerospace Medicine and Vestibular Research Laboratory.

Dr. Blue's honors and awards include the Fulbright Scholarship, Orlando Health Graduate Medical Education Resident Research Award, the Aerospace Medical Association's (AsMA's) Life Sciences and Biomedical Engineering Branch's (LSBEB's) Ross McFarland Award, the Space Medicine Association's (SMA's) Young Investigator's Award, AsMA's Fellows Award, Julian E. Ward Memorial Award, and Arnold D. Tuttle Award, and NASA's Agency Honor Award to the SpaceX Demonstration Mission 2 Team. She is a Fellow of AsMA and serves on the Editorial Board of *Aerospace Medicine and Human Performance*. She is also an Associate Editor at Nature Microgravity and is Board certified by the American Board of Emergency Medicine and the American Board of Preventive Medicine. She is lead or co-author of over 60 publications.

"Ever Upward"

For the latest AsMA News please read our Newsletter "Ever Upward" online at: http://www.asma.org/news-events/asma-news-archive/newsletters

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RAYMOND F. LONGACRE AWARD

Matthew Dumstorf, M.D., M.S.

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

Matthew Dumstorf, M.D., M.S., was the 2022 winner of the Raymond F. Longacre Award. Dr. Dumstorf was honored for his dedication to aerospace medicine behavioral sciences and for his role as a physician responsible for airline pilots participating in the Federal Aviation Administration's (FAA's) Human Intervention Motivation Study (HIMS) drug and alcohol program. He has promoted the fundamental understanding of addiction recovery and the interface with aviation safety. He is devoted to the principles of the FAA HIMS program and has personally worked over 20,000 cases of drug and alcohol addiction in aviators, with the goal of returning them safely to the cockpit. He applies the most recent proven models of addiction medicine and recovery to the scientific principles of risk management related to the safety of the National Air Space. He has also served as an educator and mentor to hundreds of Aviation Medical Examiners (AMEs), aerospace medicine residents, and medical students.

Dr. Dumstorf graduated from the University of Cincinnati College of Medicine as an M.D. in 1998. Following an internship year in Internal Medicine and one year of training in Radiation Oncology, he attended Wright State University's Residency in Aerospace Medicine. He completed the residency training in 2002 and received his Master of Science in Aerospace Medicine degree in 2003. He began his career as American Airlines Area Medical Director at Chicago O'Hare from January 2004 through June 2006. He then joined the FAA's Office of Aerospace Medicine as the Great Lakes Deputy Regional Flight Surgeon, holding that position from June 2006 until December 2012. He then transferred to the FAA's Airman Medical Certification Division as a Staff Physician and Medical Officer and has been in that position from December of 2012 to the present. Since the spring of 2013, he has been the Drug and Alcohol Team Lead for the Airman Medical Certification Division in Oklahoma City.

Dr. Dumstorf has been a member of the Aerospace Medical Association (AsMA) since 2000 and was selected as a Fellow of AsMA in 2018. He has been a member of the International Airline Medical Association (IAMA, formerly the Airlines Medical Directors Association) since 2004, and has been that organization's Treasurer since 2013. He has been Board Certified by the American Board of Preventive Medicine in Aerospace Medicine since 2004, and was Board Certified in Occupational Medicine from 2009–2019. His honors and awards include a National Merit Scholarship, University of Dayton Presidential Scholarship and its Outstanding Jr. of Electrical Engineering award, WSU's Colonel Alonzo McWilliams Donnell, M.D., Scholarship, and a Dayton Area Graduate Medical Education Consortium Resident Research Support Grant awarded for Master's research.

THEODORE C. LYSTER AWARD

Nereyda Sevilla, M.P.H., Ph.D., CAsP

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

Nereyda Sevilla, M.P.H., Ph.D., CAsP, was the 2022 recipient of the Theodore C. Lyster Award for her innovative research, which revolutionized airline industry infectious disease mitigation processes. Dr. Sevilla's novel research modeled numerous diseases to test theories related to airborne pathogens. Her findings concluded that aircraft function more as a vector than an incubator and that airports are more likely a location for disease transmission due to close contact with infected passengers for extended periods of time. Her models were subsequently used with in the airline industry to make real-world changes, and were applied during the pandemic to safeguard travelers, aircrew, and staff. Additionally, Dr. Nereyda has contributed to public awareness and education through published peer-reviewed articles, university panels, public speeches, and radio appearances. Her research has positively impacted both the scientific and operational communities.

Dr. Sevilla earned her B.S. in Biology in 1997 from the US Air Force Academy and went on to earn an MPH from the Uniformed Services University of the Health Sciences in 1999. In 2017 she received her Ph.D. in Biodefense from George Mason University.

From 1997 to 2006, while on active duty in the US Air Force, Dr. Sevilla served as an aerospace physiologist, Chief, Human Performance Teams, Air Force Biomedical Service Corps Officer and Subject Matter Expert-Physiology/Human Factors. She provided expertise in physiology to evaluate commercial-off-the-shelf simulators for use in the field and conducted statistical analysis of physiology mishaps for inclusion in Air Force curriculum and base safety programs. From 2007 to 2011 in the Air Force Surgeon General's office, Directorate for Modernization, Research and Development she was Senior Functional Analyst/Subject Matter Expert for the Air Force Medical Research Program, and a Program Manager as primary point of contact for the Air Force Clinical Investigation Program. From 2011 to 2019 she continued in the Air Force Surgeon General's Office,

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Directorate for Modernization; Research and Development as Chief of Air Force Clinical Investigations and Portfolio Manager/Subject Matter Expert for Human Performance. Since October 2019 Dr. Sevilla has been Chief, Clinical Investigations Program Office with the Defense Health Agency, Research and Engineering. There she serves as Chief of the Clinical Investigations Program Office (CIPO) and as senior science advisor whose duties include implementation of clinical investigations and research issues across the MHS. She independently leads the integration and alignment of programs across the CIPO and coordinating program activities of CIPO staff.

Dr. Sevilla's awards and honors include: 51 Fighter Wing Staff Company Grade Officer of the Year, Osan Air Base; USAF Meritorious Service Award; Air Force Company Grade Aerospace Physiologist of the Year; 2014 Training and Education Award from the Society of Federal Health Professionals; 2017 Civilian of the Year from the Office of the Air Force Surgeon General and Air Force Medical Support Agency; the 2018 Paul Bert Award for Research from the Aerospace Physiology Society; the 2018 Uniformed Services University Alumni Association Graduate School of Medicine Graduate of the Year; the 2019 Award for Meritorious Civilian Service, Department of the Air Force, and the Biomedical Specialist Civilian of the Year: from the Air Force Medical Service.

A Fellow of AsMA, Dr. Sevilla is a past president of the Aerospace Physiology Society, and a member of the Aerospace Human Factors Association, the Life Sciences & Biomedical Engineering Branch, and the White House Society of Military Social Aides.

MARIE MARVINGT AWARD

Daniel Berry, D.O., Ph.D.

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

Daniel Berry, D.O., Ph.D., was the 2022 recipient of the Marie Marvingt Award for his dedication and commitment to excellence in the field of aerospace medicine for over 30 years. Dr. Berry's career has spanned multiple deployments and he has served as the Federal Aviation Administration (FAA) Central Regional Flight Surgeon for the past 10 years. He continues to advocate for aerospace medicine with colleagues, students, legislators, and the public, making the skies safer for all. He supervises the FAA's Central Region employee drug and alcohol testing programs and provides departmental medical review officer services and provides expert advice and technical knowledge to FAA and Department of Transportation (DOT) organizations on a variety of aerospace medicine activities and projects. He has played a pivotal role in advancing aerospace medicine with Congressional representatives and legislators and has published on a variety of aerospace medicine subjects.

Dr. Berry is a graduate of Southern Adventist University in Collegedale, TN, with a Bachelor's degree in Mathematics with a Chemistry minor. He earned a Master of Science degree in Biomathematics from Loma Linda University, CA, and a Ph.D. in Biomedical Engineering from the California Coastal University. He graduated from Kansas City University of Medicine and Biosciences and completed his post-graduate training at the Tulsa Regional Medical Center, which is now the Oklahoma State University Hospital. He completed the RAM requirements for a Master of Public Health at the University of Oklahoma, School of Public Health, in Oklahoma City, OK. He is Board Certified in Aerospace Medicine by the American Osteopathic Board of Preventive Medicine and is Board Certified in Family Practice by the American Osteopathic Board of Family Practice.

Dr. Berry started his career in the U.S. Air Force as a Flight Surgeon at Tinker AFB in Oklahoma City, OK. Within one year he was promoted to chair of the department. His next assignment was at McGuire AFB, NJ, where he was the Director of Preventive Health Services. He was then assigned as the Aerospace Medicine Squadron Commander at Tyndall AFB in Panama City, FL. Then he was selected to be the Command Chief of Aerospace Medicine, the Chief of Clinical Medicine, and the Medical Director of the Personnel Reliability Program for headquarters Space Command at Petterson AFB, Colorado Springs, CO. He then became the Aerospace Medicine and Aeromedical Information Systems Director for the Human Systems Program Office at Brooks City-Base in San Antonio, TX, and later the Human Systems Office Deputy Group Commander.

Dr. Berry's last assignment with the U.S. Department of Defense was as the Joint Project Manager for Biological Defense. After retiring from the Air Force, he served in the FAA as first the Deputy Regional Flight Surgeon, and now as the Regional Flight Surgeon for the Central Region of the United States. He is also the Aerospace Medicine Safety Information System (AMSIS) Release 2 Product Owner, developing the AMSIS software program that will replace six legacy FAA Office of Aerospace Medicine programs.

Dr. Berry has been extensively involved with the American Osteopathic Association. He has held nearly every office in the American Osteopathic College of Occupational and Preventive Medicine (AOCOPM), including President of the College. He developed and founded the Osteopathic Specialty of Undersea and Hyperbaric Medicine and established the Undersea and Hyperbaric Medicine Conjoint Committee. He is currently the Chair of the American Osteopathic Board of Preventive Medicine (AOBPM). He is also a member of the Bureau of Osteopathic Specialists (BOS). He is a distinguished Fellow of the AOCOPM and a Fellow of the Aerospace Medical Association and is also a member of

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the American Society of Aerospace Medicine Specialists, the Space Medicine Association, and the Society of U.S. Air Force Flight Surgeons.

Dr. Berry is one of the authors of the "Aerospace Medicine Board Essentials" textbook. He developed the first Undersea and Hyperbaric Medicine Table of Specifications (TOS) and Joint Task Analysis (JTA), and has participated in updating the previous Aerospace Medicine TOS and JTAs. He holds five medical patents and is the president and owner of Obtronics, Inc., which is a medical device development company. His awards and honors include the 2010 Star Spangled Banner Medallion from the Kansas City University of Medicine and Biosciences, the Mount Vernon Academy Mathematic Trophy, Manager of the year for the Central States Region of the Department of Transportation OneDOT Award, the Order of the Green Dragon from the U.S. Army Chemical Corp., the Defense Superior Service Medal, the Air Medal, the Air Force Commendation Medal, and the National Defense Service Medal.

HARRY G. MOSELEY AWARD

Todd S. Dart, Ph.D.

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.

Todd S. Dart, Ph.D., is the 2022 winner of the Harry G. Moseley Award. Dr. Dart was honored for his safety expertise and technical competence. His work in keeping aircrew safe has earned him recognition within the professional aerospace community and he is often the first person contacted for difficult safety issues. He has done extensive hypobaric work, is an experienced U.S. Air Force School of Aerospace Medicine academic instructor, and was Human Factors Branch Chief at the Air Force Operational Test and Evaluation Center. He was recognized in 2012 by the F-22 Program Manager for being instrumental in solving the F-22 hypoxia problem. This allowed those grounded aircraft to be returned to operational flight, a significant achievement. He has played an important role in the testing and evaluation of many aircraft life support systems.

Dr. Dart is the Aerospace Physiology Research and Test Manager for KBR Government Solutions, Science & Space business unit, located on the former campus of the U.S. Air Force (USAF) School of Aerospace Medicine (USAFSAM) at Brooks City-Base in San Antonio, TX. Since joining KBR in 2011 he has managed altitude, thermal, and acceleration test and evaluation for aircraft and personal life support systems and aircrew flight equipment. He has tested life support systems, or served as an aerospace physiology consultant, for the Department of Defense's F-15, F-18, F-22, F-35, and T-6 aircraft, NASA's X-59 low boom flight demonstrator, and Virgin Galactic's SpaceShip 2. When not involved with testing, he supports and conducts centrifuge acceleration and altitude chamber research and training.

A retired USAF aerospace physiologist, Todd attended physiological training officer school at Brooks AFB in 1990, remaining on staff after graduation as the officer in charge of the Cockpit and Equipment Integration Laboratory, marking the beginning of a successful career in aircrew life support systems and flight equipment development. Following a tour at Edwards AFB, CA, conducting aircrew physiological training, he returning to Brooks AFB, TX, where he completed the clinical hyperbaric physiology fellowship at the Davis Hyperbaric Laboratory. Upon completion of the fellowship, he worked as the lab's director of hyperbaric operations and safety. This gave him the opportunity to travel for the inspection and certification of USAF hyperbaric treatment chambers in the United States, Japan, and Panama. Subsequent assignments were to Beale AFB, CA, as the aerospace physiology training flight commander where he managed regional military and FAA physiological training, the U-2 pilot full pressure suit orientation course, and the U-2 water and land survival training programs. This was followed by an assignment to the Air Force Operational Test and Evaluation Center at Kirtland AFB, NM, serving as the aircraft human factors branch chief. Todd's last military assignment was once again at Brooks City-Base, TX, where he was involved with aircrew fatigue research and education before moving on to altitude research where he managed the investigation of the impact of hypoxia on night vision goggle performance. Retiring from the Air Force in 2008, he became an adjunct biology instructor at Northwest Vista College in San Antonio, TX, teaching courses in biology, ecology, and anatomy and physiology before returning once again to Brooks to work for Wyle, which became KBR in 2016.

Todd holds a Bachelor of Science degree in Kinesiology from the University of California, Los Angeles, a Master of Science degree in Biology from the University of Texas at San Antonio, and a Doctor of Philosophy degree in Wildlife and Fisheries Sciences with emphasis in physiological ecology from Texas A&M University. Todd's scientific publications explore the effects of hypoxia on psychomotor performance, pulmonary impact of long duration U-2 missions, pressure breathing for G without use of upper pressure garments on acceleration performance, and hypoxia prevention following rapid decompression. In addition, he has produced non-scientific publications concerning altitude decompression sickness treatment, and the causes, risks, and prevention of hypocapnia in aviators. He is an Associate Fellow of the Aerospace Medical Association and a board-certified aerospace physiologist.

Nominate a Colleague for an AsMA Award!
The nomination form and rules are on our website at: https://www.asma.org/members-only/award-nominations. There is an online submission form linked on this page. For more information, you can contact the Chair, at: awards@asma.org. **The deadline is January 15.**

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JOHN PAUL STAPP AWARD

Lindley Bark, B.S.

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.

Lindley Bark, B.S., was presented the 2022 John Paul Stapp Award for his leadership in the development, testing, validation, and unparalleled rapid field deployment of the U.S. Navy MH-60S helicopter gunner seats in under 3 years. This crashworthy seating system meets all required acute and chronic injury mitigation requirements and has resulted in virtually all aircrew reporting improved accommodation, less pain, and slower progression of existing musculoskeletal symptoms. Mr. Bark initiated the pilot gunner seat redesign feasibility project in 2015. An early prototype gunner seat system was developed, fabricated, and evaluated in two flights in November 2016. As a result, a program of record was established in June 2017 with Mr. Bark as the overarching technical leader. This project was executed at an unparalleled pace and reached initial operating capability in November 2019 with the resulting seating system completely fielded in November 2020 and represents the first time a seating system has been developed and fielded to relieve extreme chronic injury, medical disability, and mission effectiveness issues among fleet aircrew. During its development, Mr. Bark led the rapid in-house research and development of new technologies, design/integration, and novel numerical modeling validation methods in an operational environment.

JOHN A. TAMISIEA AWARD

Clayton Cowl, M.D., M.S.

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.

Clayton Cowl, M.D., M.S., is the 2022 winner of the John A. Tamisiea Award for his contribution in the application and art and science of aviation medicine in its application to the general aviation field. Dr. Cowl created a Center of Excellence at the Mayo Clinic which is sought after by many pilots and was instrumental in developing a Fellowship in Aviation Medicine. He has earned an international reputation for leadership in the management and practice of aerospace medicine. He is a sought after and regular lecturer at both Civil Aviation Medical Association (CAMA) and Aerospace Medical Association (AsMA) meetings and has contributed to the literature on everything from human factors in hot-air balloon fatalities to current issues such as Long COVID.

Dr. Cowl's research activities include aerospace safety and altitude physiology, environmental and occupational lung diseases, and medical education. He has tested emergency oxygen delivery systems used in commercial and private aircraft, analyzed crash data from general aviation aircraft, and studied the efficacy and quality of forensic pilot evaluations. He has also been involved in studies on occupational asthma and acute toxic inhalations, asbestos-related lung diseases, and other occupational pneumoconiosis. His efforts are aimed at education through Mayo Clinic training courses and providing test preparation material. The courses involved include performing federally mandated medical exams for commercial truck and bus drivers for the transportation industry, which touches everyone. Dr. Cowl's research is part of a vital effort to ensure the safety of roads and airways.

Dr. Cowl holds a B.S. in Chemistry from Pacific Lutheran University, an M.D. from Northwestern University Feinberg School of Medicine, and an M.S. in Preventive Medicine and Environmental Health from the University of Iowa. He served a Residency in Internal Medicine at the University of Iowa and is a Fellow in Preventive Medicine/Occupational Health/Occupational Medicine from the University of Iowa and a Fellow in Pulmonary & Critical Care Medicine from the Mayo School of Graduate Medical Education, Mayo Clinic College of Medicine. He is currently the Chair of the Division of Preventive, Occupational and Aerospace Medicine at the Mayo Clinic's Rochester, MN, campus. He is board certified in Pulmonary Disease and in Occupational Medicine. He has been a physician with the Mayo Clinic since 1996. A Fellow of AsMA, CAMA, and the International Academy of Aviation and Space Medicine, he is a Past President of CAMA and President of the American College of Chest Physicians.

THOMAS J. AND MARGARET D. TREDICI AWARD

Harriet Lester, M.D., FAsMA, FCAMA, FAAO

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

Harriet Lester, M.D., FAsMA, FCAMA, FAAO, was the 2020 recipient of the Thomas J. and Margaret D. Tredici Award for her exemplary efforts to raise safety awareness with a focus on aerospace ophthalmology and human factors. Dr. Lester has given 21 years of outstanding contribu-

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tions to aerospace ophthalmology and vision sciences as a subject matter expert on the eyes for the Federal Aviation Administration (FAA), Aerospace Medical Association (AsMA) leadership, and the International Civil Aviation Organization (ICAO) vision workgroup; as Regional Chair for the FAA Laser Strike Workgroup and the Occupational Safety and Health Administration (OSHA); aeromedical research program initiatives; and created the Aerospace Ophthalmology Workgroup and Instructional Course, among other efforts. She has created aeromedical vision-related panels for AsMA and others and is an active member of AsMA's Science and Technology Committee, the Aerospace Human Factors Association (AsHFA), the ICAO Color Vision Workgroup, and the Advisory Board of York College Aviation Institute.

Dr. Lester is currently the Acting Senior Regional Flight Surgeon and Eastern Regional Flight Surgeon for the FAA. She holds an M.D. from the New York University School of Medicine, earned in 1984. From 1984–1989, she served an ophthalmology residency at St. Lukes-Roosevelt/Columbia-Presbyterian Medical Center in General Surgery and then an Ophthalmology residency at New York University Medical Center. She later undertook Fellowship training in the Department of Ophthalmology and Visual Sciences at Albert Einstein College of Medicine from 1995–1996. She was in private practice from 1995 to 2000. She also served as Associate Director, Ophthalmology Residency, at North Shore University Hospital/Cornell Medical Center from 1989–1990. In 1991, she became Supervisory Ophthalmologist at Montefiore Medical Center Satellites until 1992 and then served in that position again from 1996–1997. From 1992 until 1994, she was Chief of the Ophthalmology Department at RCHP/HIP HMO in New Jersey. In 1997, she became Director of the North Central Bronx Hospital Department of Ophthalmology/Montefiore Medical Center, a position she held until 1999. From 1990–1997, she was Clinical Instructor of Ophthalmology & Visual Sciences at Albert Einstein College of Medicine. In 1997, she became Assistant Professor of Opthalmology & Visual Sciences until 2009. She took the position of Eastern Regional Flight Surgeon in 2001 and became Acting Senior Regional Flight Surgeon in 2022.

Dr. Lester is a Fellow of the American Academy of Ophthalmology, the Civil Aerospace Medical Association, and the Aerospace Medical Association (AsMA). Within AsMA, she is a Member-at-Large of the AsMA Council, an Aerospace Human Factors Association Executive Committee Member-at-Large, and was the Arrangements Chair for the 2016 Annual Scientific Meeting. She serves in the Iberoamerican Association of Aerospace Medicine, an affiliate group of AsMA, on the AsMA Program and Science & Technology Committees, and in the Life Sciences and Biomedical Engineering Branch. Her honors and awards include the Federal Executive Board Diversity Award, the Regional Administrator Honorary Award for Excellence in EEO, the Federal Executive Board Emergency and Preparedness and Employee Safety Award, Innovator of the Year and Flight Surgeon of the Year (twice) from the Office of Aerospace Medicine, AsMA's Marie Marvingt Award, the Aviation Safety National Leadership Manager Award, Regional Administrator Honorary Award: COVID-19 Response Team, and three FAA Special Achievement Awards.

ARNOLD D. TUTTLE AWARD

Ross Pollock, B.Sc., M.Sc., 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.*

Ross Pollock, B.Sc., M.Sc., Ph.D., is the 2022 winner of the Arnold D. Tuttle Award for his role as the lead author of "Pulmonary effects of sustained periods of high-G acceleration relevant to suborbital spaceflight" published in the journal in August 2021 [Aerosp Med Hum Perform. 2021; 92(8):633–641]. Dr. Pollock and his co-authors examined the pulmonary effects of sustained periods of high G acceleration to discover the clinical implications for medically susceptible individuals who might take part in commercial suborbital spaceflights. Using 2-minute centrifuge exposures, they studied subjects using advanced respiratory techniques to measure regional distribution of ventilation in the lungs, neural respiratory drive, and work of breathing. They also measured arterial blood gases. They found that acceleration caused hypoxemia which worsened with increasing magnitude and duration of chest-to-back G. There were progressive increases in the work of breathing and neural respiratory drive. The authors recommended further investigation as these effects could be clinically important in medically susceptible passengers.

Dr. Pollock is currently a Lecturer in Aerospace Physiology in the Centre of Human & Applied Physiological Sciences (CHAPS) of King's College London and is the Co-Director of the M.Sc./P.G.Dip. in Aerospace Medicine. He holds a B.Sc. (First class, Hons.) in Sport and Exercise Science and an M.Sc. in Bioengineering from the University of Strathclyde. He completed his Ph.D., entitled "Physiological and Clinical Studies on the Effects of Whole Body Vibration" at King's College London. As part of his post-doctoral studies, he investigated the healthy ageing process through the study of highly active older adults. Following this, Ross worked at QinetiQ in their Flight Physiology Group. During his time at QinetiQ, he primarily worked on trials investigating the effects of long duration acceleration on the body and also on projects investigating aircrew performance in the presence of hypoxia and thermal stress in addition to understand musculoskeletal injury in aircrew.

From a research perspective Ross is interested in understanding the effects that long duration acceleration, studied using human centrifuges, can have on the body

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and how we can protect and enhance aircrew performance in these environments. Furthermore, he also conducts research into healthy ageing and the physiology that contributes to our decline in function and muscle mass as we age. In particular, he is interested in the role that exercise and (in)activity have in maintaining our function and performance for both healthy and clinical populations. His awards and honors include King's College London's Education Award for Student Support, an Experimental Physiology Inaugural Review Prize, Journal of Physiology Editorial Board Fellowship, and serving as reviewing editor for Frontiers in Aging: Molecular Mechanisms of Aging. He is a member of the Physiological Society and the Aerospace Medical Association.

JULIAN E. WARD MEMORIAL AWARD

Bonnie Posselt, B.Sc., MBChB, D.Av.Med. MRCP(UK), MRAeS

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.

Bonnie Posselt, B.Sc., M.B.Ch.B., D.Av.Med., MRCP (UK), MRAeS, is the 2022 recipient of the Julian E. Ward Memorial Award. Dr. Posselt was honored for her outstanding performance during her aerospace medicine residency, delivering exceptional research outputs into analogue space missions together with investigating human vision performance using HMDs, assessing the stresses placed on the optical system, and determining the appropriate visual standards required for military aircrew. Clinically, she has conducted worldwide repatriation of patients and has been an exceptional advocate for the residency program. As a STEM ambassador she outreaches to schools and colleges to promote aviation and space careers.

A native of the United Kingdom, Dr. Posselt earned a B.Sc. in Aerospace Physiology at King's College London, United Kingdom, in 2008. She graduated from Manchester University in 2009 with her M.B.Ch.B. and earned a post-graduate certificate in Aviation Medicine from King's College London and a Diploma in Aviation Medicine from the Faculty of Occupational Medicine in 2016. She attended the Space Studies Program at the International Space University in 2018 and is currently a Ph.D. candidate at the University of Birmingham. She is also an Aeromedical Physician in the Royal Air Force, a Locum doctor in the Emergency Department of John Radcliffe Hospital, Medacs Healthcare Agency, and a Field Medical Officer in the Austrian Space Forum. She is additionally serving as Specialty Registrar in Aviation and Space Medicine for Defence Denary, Centre of Aviation Medicine, RAF Henlow.

Dr. Posselt is a member of the Royal College of Physicians, the General Medical Council, the Medical Protection Society, and the Royal Aeronautical Society. She is a committee member of UK Space Life and Biomedical Sciences, a military division committe member of the Royal Society of Medicine, a trainee representative on the Specialty Advisory Committee for Aviation and Space Medicine, and a STEM outreach ambassador as well as an Associate Fellow of the Aerospace Medical Association. Her awards and honors include the Royal Society of Medicine COLT Medicine Research Prize in the lightning presentation category, the Sword of Honour, RAF U.S. Exchange Officer of the Year, a UK Space Agency Space Studies Programme Scholarship, AsMA's International Aerospace Medicine Scholarship, and the Space Medicine Association's Jeff Myers Young Investigator award. She has 11 publications and 21 abstracts to her name, been involved in over 7 research projects, 2 placements in overseas study, and over 31 presentations and speaking engagements.

FELLOWS CLASS OF 2022
Ganesh Anbalagan
Richard Arnold
James Boyd
Jason Cromar
James Davis
Christopher Flynn
Susan Fondy
Michael Hodapp
Robert Mulcahy
Anthony Schiemer
Sheau Hwa Wong

Those present at Honors Night, May 26, 2022, are pictured here with Warren Silberman (far left), Chair of the Fellows Group, and James DeVoll (far right), 2021–22 President of AsMA.

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