

President's Page

An organization's "corporate culture" is simply defined as "the way we do business around here," based on the core values and traditions we uphold.

As I reflect upon an invigorating week in Phoenix, culminating in the Honors Night celebration, I witnessed this corporate culture unfold in the spirit of international Fellowship. I challenge us as an Association to extend this Fellowship throughout the year, in the same spirit of enthusiasm and camaraderie that we share each year at the scientific meeting.

Several initiatives are in play to launch this connectivity and strengthen our corporate culture, so our members can embrace ownership in the business of the Association. You will soon receive a membership survey. Col. "Bugs" Ortega and his membership committee are actively at work creating this instrument. A unified sense of community requires everyone's participation and feedback so we can comprehensively infuse value into our member services. Each member's thoughts and ideas are important.

A strong corporate culture requires clear, open, and meaningful communication. It means being particularly sensitive to values different from our own. The international blend of our membership lends unique challenges and opportunities that can enrich our awareness of different points of view on issues of common interest.

I plan to reach out this year to our diverse societal cultures, to generate dialogue in this regard, through teleconferencing, attending international meetings, and e-mail focus group sessions. With this process we will be enlightened in ways that will cultivate purposeful participation in Association activities. We need more international Associate Fellows, who will in time become Fellows. We need to hear the voices of all international members. Through such dialogue, we will ensure that the norms and values we embrace are widely shared and strongly held throughout the Association and are truly representative of all members.

The strength of a unified culture is reflected in Association performance, both individually and collectively. A strong corporate culture assumes its members are on the same page. Our strategic direction is clearly displayed in the Bylaws document. Four key strategic goals flow from the vision and mission statements. As individual members embrace the values within these goals, performance benefits will emerge. These will appear in the form of enhanced coordination, improved goal alignment between the association and its members, increased member satisfaction and recognition of outstanding performance.

I have asked all committee chairs to align their activities this year with Association goals to create an action plan and show metrics-driven outcomes. Each committee will make valid contributions and will be intricately connected with the Association's future.



Marian B. Sides, Ph.D.

"Sincere recognition is the deepest principle of human nature and genuine appreciation is the strongest desire of mankind."

Based on our survey results and this spectrum of planned networking, what if we want to change our corporate culture? I can answer that. I expect our quest for feedback from our membership will drive change. I also submit that visionary leaders must champion change, in order to stay at the leading edge. We need a corporate culture that is sustainable in the marketplace and that will survive economic and industry turmoil. The modus operandi that brought success yesterday may bring demise tomorrow.

We need a delicate balance between creating this unified set of norms and values as our foundation of operation, while at the same time exercising risks in creative thinking and innovative ideas, studying successful organizations, and examining best practice models.

We cannot continue to rely on the annual meeting as a main source of revenue. We need to create multiple income streams and alternative revenue-generating programs and activities. We need to continue to examine unique dues structures, explore partnerships with other organizations, create new alliances, and find ways to reduce the cost of operations.

David Hawkins, M.D., Ph.D., in his book "Power vs. Force," brings forth the hidden determinants of human behavior. In this foregoing dialogue it was my intention to bring forth an awareness of the power and force within the multidisciplinary fabric of the Aerospace Medical Association. We represent a fascinating spectrum of human consciousness, and an equally fascinating geography of human experience. Together we can venture forth to trespass all boundaries and develop a future topography for a better life on Planet Earth and wherever our exploration takes us. The future starts NOW.

It truly is an exciting time to be a member of the Aerospace Medical Association. Isn't it?

You may reach me at president@asma.org or call me at 847-899-8349.

2010 Award Winners of the Aerospace Medical Association

Honors Night Ceremonies of the 81st Annual Scientific Meeting of the Aerospace Medical Association were held May 13, 2010, at the Sheraton Phoenix Downtown Hotel in Phoenix, AZ. Seventeen awards for outstanding contributions in aviation and space medicine were presented. The presentations were made by Robert Weien, M.D., president of the Aerospace Medical Association. The winners were recommended by the Awards Committee, chaired by Dr. Dwight Holland, and approved by the Executive Committee of the Aerospace Medical Association.



JOHN PAUL STAPP AWARD

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.

Robert (Bob) Banks, B.Eng., M.D., received the 2010 John Paul Stapp Award for his long-term contributions to military aviation and aerospace medicine. The award was established and sponsored by Environmental Tectonics Corporation. Dr. Banks' research activities have resulted in publications in the areas of human factors, impact biomechanics, and crash investigation. He has applied the principals of impact biomechanics to over 1500 cases that included major aviation disasters, amusement industry mishaps, and motor vehicle crashes. He contributed directly towards the establishment of the first acceleration standards for amusement rides in the United States. He also contributed to the conclusions found in the NASA Spacecraft Crew Survival Integrated Investigation Team report entitled "Columbia Crew Survival Investigation Report," publicly released in December of 2008.

Dr. Banks grew up in Whitby, Ontario, Canada, graduating from Anderson Collegiate and Vocational Institute (ACVI) in 1969. He then attended the Royal Military College (RMC) of Canada, graduating in Civil Engineering in 1974. He earned his pilot wings in 1975. After two flying tours, he returned to school, graduating from the University of Toronto in Medicine with an M.D. in 1986, and the U.S. Navy Residency of Aerospace Medicine in 1993. His research and publication of the "push-pull effect" earned him the Arnold D. Tuttle Award in 1996 from the Aerospace Medical Association. Additionally, he has won many teaching and academic awards.

Dr. Banks' military career included 28 years with the Canadian Air Force as a pilot, flight surgeon, and senior aerospace medicine consultant. His tour included appointments as Base Surgeon at CFB Moose Jaw and as Team Doctor of the CF Air Demonstration Team ("Snowbirds"). In 1993 he was assigned to the Defence and Civil Institute of Environmental Medicine (DCIEM) as Head, Central Medical Board. One year later, he became the Deputy Director, Human Protective Systems Division. When DCIEM was reorganized, he became Head of Aerospace Life Support.

In 1997, Dr. Banks joined Biodynamic Research Corporation (BRC) in San Antonio, TX, where he now serves as an Executive Vice President and Principal Consultant.

A Fellow of the Aerospace Medical Association, he has served on the Editorial Board of *Aviation, Space, and Environmental Medicine*, and published over 40 papers, articles, and scientific presentations.



ERIC LILJENCANTZ AWARD

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 Association.

Larry P. Krock, Ph.D., received the 2010 Eric Liljencrantz Award for his quarter century of excellence in aerospace medicine research. The award was sponsored by the Aerospace Medical Association. Dr. Krock has made significant contributions to aerospace medicine in the fields of sustained acceleration, hypobaric medicine, and hyperbaric medicine. He is recognized for instilling operational medical research back into the U.S. Air Force medical service. Vanguard studies conducted in his laboratory have formed the foundation of understanding of the influence that increased partial pressure of oxygen has on cell structure and function.

Dr. Krock is currently the Chief Scientist of the School of Aerospace Medicine and oversees an operationally responsive medical research program. He is acknowledged as a principal agent for reinvigorating operational medical research back into the U. S. Air Force Medical Service. Furthermore, his current role includes being the responsible government official ensuring implementation of the 2005 Base Realignment and Closure (BRAC)-directed transfer of the School of Aerospace Medicine to Wright-Patterson AFB, OH. This BRAC activity is easily the most extraordinarily complex mission relocation the USAF has attempted through any BRAC action thus far.

Dr. Krock received a B.A. in Kinesiology and a Master of Arts in physiology from California State University, Northridge, CA, in 1972 and 1974, respectively. Following an 8-year appointment to the faculty of

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that University, he traveled to Texas to earn a Ph.D. in physiology from Texas A & M University, College Station, TX. He spent a year and a half as a Research Associate in the Department of Medicine, Baylor College of Medicine, Houston, TX, and arrived at the School of Aerospace Medicine, Brooks AFB, TX, in 1985.

In his first assignment, Dr. Krock investigated the metabolic requirements of Explosive Ordnance Disposal render-safe procedures and for patient processing with wear of chemical defense ensembles through the Self Contained Protection Shelter-Medical facility. In 1987 he transferred to the sustained acceleration function and conducted many original studies exploring cardiovascular and musculoskeletal responses to sustained high-G forces. His imaginative work with upright, seated, rapid onset lower body negative pressure (LBNP) was key in understanding the fluid dynamics during increased gravitational stress and LBNP. His important exploratory work in ground-based anti-G straining maneuver (AGSM) training methods clarified lower extremity metabolic requirements during the AGSM and redefined how centrifuge training for high-G exposure is conducted by the USAF.

In 1994 Dr. Krock was selected to found and direct a new research mission for the Davis Hyperbaric Medicine Laboratory, Armstrong Laboratory. In this capacity, his contributions have been substantive. His most significant achievement was founding and guiding the development of a world-class in vitro immunohistochemical laboratory, the Department of Defense's lead laboratory for hyperbaric medicine research. Studies conducted in this laboratory extended the use of hyperbaric oxygen to aid in the prevention of, and expedited recovery from, a wider diversity of injuries sustained during combat and mass casualty scenarios in both the military and civilian sectors. In addition, he was the Program Manager for technology advances for this discipline. Importantly, he was responsible for co-developing, with the U.S. Navy, the deployable hyperbaric chamber system, Hyperlite, which became the backbone of a new strategic plan to move hyperbaric medicine into the forward theater of operations.

With more than 100 refereed manuscripts and abstracts to his credit, his professional contributions and achievements are well known to local, national, and international peers, and include teaching, mentoring, and appointments to several national scientific review panels. He has served as Chair of the Institutional Review Board and Authorized Institutional Official for human experimentation at Brooks City-Base. A Fellow of the Aerospace Medical Association, he has served on many of the Association's committees, including the Membership Committee (Chair), the Advisory Editorial Board for *Aviation, Space, and Environmental Medicine*, and the Scientific Program Committee. He received the AsMA Theodore C. Lyster Award in 1998. He is also a member of the AsMA constituent organizations, Aerospace Physiology Society and Life Sciences and Biomedical Engineering Branch (LSBEB). He received the LSBEB Professional Excellence Award in 2009. He is an Academician of the International Academy of Aviation and Space Medicine and sits as a legacy-member to the Scientific Committee.



LOUIS H. BAUER FOUNDERS AWARD

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.

Melchor J. Antuñano, M.D., M.S., was the recipient of the 2010 Louis H. Bauer Founders Award for his highly distinguished, internationally recognized expertise in aerospace medicine. Dr. Antuñano has led and managed teams of aeromedical specialists in the generation, administration, and promulgation of national and international aeromedical planning and policy, and holds senior leadership positions with numerous international aeromedical organizations. He has provided critical subject matter expertise to a host of high-visibility committees and working groups and is a prolific author and much sought-after speaker. He continues to be a principle promoter of international collaboration in aerospace medicine and flight safety, and has been recognized by numerous government and non-government aerospace organizations worldwide.

Dr. Antuñano is currently the Director of the U.S. Federal Aviation Administration (FAA) Civil Aerospace Medical Institute (CAMI) in Oklahoma City. He provides executive direction and is responsible for the administration of the FAA Office of Aerospace Medicine's programs in Medical Certification, Medical Education, Medical Research, Human Factors Research, and Occupational Health Services.

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. He was awarded a post-doctoral research associateship by the U.S. National Research Council of the National Academy of Sciences at the USAF School of Aerospace Medicine in San Antonio, TX.

He is credited with 522 professional presentations and invited lectures at national and international conferences in aerospace medicine in 31 countries, and with 55 scientific publications covering a variety of aerospace medicine topics. He is also a faculty member at Wright State University School of Medicine, the University of Texas Medical Branch in Galveston, and the National University of Colombia School of Medicine.

Dr. Antuñano is a Fellow and Past-President of the Aerospace Medical Association, Past-President of the Space Medicine Association, Past-President of the Iberoamerican Association of Aerospace Medicine, Chancellor of the International Academy of Aviation and

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Space Medicine, Fellow of the Aerospace Human Factors Association, member of the International Academy of Astronautics, Honorary Member of the Colombian Society of Aviation Medicine, Honorary Member of the Greek Aerospace Medical Association, the Brazilian Society of Aerospace Medicine, the Mexican Society of Aviation Medicine, the Slovenian Aerospace Medical Association, and the Turkish Civil Aviation Medicine Association, as well as many other national and international professional societies in aerospace medicine.

Dr. Antuñano has received 66 awards and recognitions for his academic, administrative, and research achievements. These awards include the John A. Tamisiea Memorial Award and the Eric Liljencrantz Award from the Aerospace Medical Association, the DOT Secretary's Award for Meritorious Achievement: Silver Medal, the Outstanding Manager Award from the FAA Office of Aerospace Medicine, the Arthur S. Fleming Award from George Washington University, and the Young Investigator Award from the Space Medicine Association. He also received a Congressional Certificate of Recognition for Contributions to Improve Aviation Safety in Colombia through Continuing Medical Education from the House of Representatives of the Republic of Colombia and was named Honorary Federal Air Surgeon by the Director General of the Civil Aviation Authority of the Dominican Republic.



WON CHUEL KAY AWARD

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.

Yehezkel G. Caine, M.D., M.Sc., was the 2010 recipient of the Won Chuel Kay Award for his contributions to international aerospace medicine. The award is sponsored by the Korean Aerospace Medical Association. Dr. Caine is well known and highly respected internationally. He has been most effective in collaborations in aerospace medicine policy and has been a guest lecturer at various professional forums worldwide. He is currently serving as President of the International Academy of Aviation and Space Medicine. He established a new format, procedures, and protocols for peer review while he was Chair of the Scientific Committee of the International Congress of Aviation and Space Medicine that improved the scientific content of the

program and led to collaboration with other European aerospace medicine organizations in improving their academic programs. He also initiated an agreement with the Aerospace Medical Association (AsMA) to reciprocate on position statements and established the first regulations for the transportation of the sick and injured by air medical transport for the Israeli Interministerial Committee.

Dr. Caine is currently the CEO (Director General) of the Sarah Herzog Memorial Hospital in Jerusalem, Israel. He earned his M.D. in 1973 from Hadassah, Hebrew University Medical School, in Jerusalem, and then spent a year in a Fellowship in Environmental Medicine, Public Health and Aerospace Medicine, at Ohio State University in Columbus, OH. From 1973-1974, he served in an internship at Hadassah University Hospital. In 1978, he completed the course in Advanced Aerospace Medicine at the USAF School of Aerospace Medicine at Brooks AFB, TX. He then served a residency in general surgery at Hadassah University Hospital until 1985. He is a USAF Diplomate in Advanced Aerospace Medicine and in Hyperbaric Medicine and is board certified in general surgery in Israel.

Dr. Caine served in the Israeli military starting in 1967. He held a variety of positions, including Course Commander of Flight Surgeons and Aviation Medicine, Consultant to the IAF Aircraft Accident Investigation Board, Commander of the Israeli Air Force Aeromedical Center, Deputy Surgeon General of the IDF Air Force, and, from 1991-1994, Surgeon General of the Israel Air Force. After he completed his residency in 1985, he became Senior Staff Surgeon in the Department of General Surgery at Hadassah University Hospital. From 1986-1987, he was a Visiting Scientist at Whitaker Institute, Massachusetts Institute of Technology, in Cambridge, and also served as a Lecturer in Medicine at Harvard University Medical School and as a Research Associate in the Department of Hematology-Oncology, Division of Molecular Medicine, at Beth-Israel Hospital in Boston.

Since 1998, Dr. Caine has served as Chairman of the National Medical Review Board for the Ministry of Transport, Civil Aviation Authority, Aircrew Licensing Division, in Jerusalem, and since 1997 as a member of the Scientific Advisory Board, IDF Medical Corps. From 1997-1998, he was a consultant to the Ministry of Interior National Planning Board on the health aspects of "Ben Gurion 2000" (an international airport expansion project), and from 1998-2002, he was a member of the Supervisory Board of the Alzheimer Survey of Jerusalem. Since 1999, he has served as a consultant to the Ministry of Transportation and a member of the Investigatory Board on Aeromedical Review Panels. From 2000-2001, he was a consultant to the Ministry of Transportation and Ministry of Health and a member of the Commission on the Aeromedical Transportation of the Sick and Injured. He took up the duties of his current position in 1995.



**SIDNEY D. LEVERETT, JR.
ENVIRONMENTAL SCIENCE
AWARD**

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 Aviation, Space and Environmental Medicine, or by activities conducted in support of aerospace systems operation. Sponsored by Environmental Tectonics Corporation.

Lt.Col. Valerie E. Martindale, USAF, BSC, received the 2010 Sidney D. Leverett, Jr., Environmental Science Award. Lt. Col. Martindale received the award for facilitating human systems integration implementation and initiating a human systems integration assessment process for the U.S. Air Force. The resulting policy will improve the operational performance and safety of Air Force systems while reducing the cost of all systems. Lt.Col. Martindale oversaw review of education and training programs to provide curriculum improvements for many joint and Air Force career fields. Her vision and leadership made the Air Force Human Systems Integration Implementation Workshop at Wright-Patterson AFB in May of 2009 possible. She orchestrated the human systems integration process to select the best from Army and Navy programs and developed some unique solutions for the Air Force, resulting in an integrated approach.

Lt.Col. Martindale is Chief of the Warfighter Support Division in the Air Force Human Systems Integration Office. As such, she contributes to Air Force policy for requirements, development, acquisition, and test of Air Force systems and equipment. She also works to connect Air Force requirements and capability gaps with research efforts and new technology in the disparate fields that contribute to human performance. She is Chair of the Air Force Human Performance Functional Area Working Group. Other positions held include Chief of the Human Performance Division on the Air Staff, Chief of Aerospace Physiology, and Chief, International Human Factors for the Air Force Research Laboratory.

Lt.Col. Martindale earned a B.A. and an M.S. in 1983 from Northwestern University and a Ph.D. in Developmental Genetics and Anatomy in 1989 from Case Western Reserve University. She joined the Air Force in 1990 and completed Squadron Officer School in 1996, Air Command and Staff College in 1998, and Air War College in 2004. From 1990-1996, she was Chief of Veterinary Hyperbaric Medicine/ Aerospace Physiology Division at the Clinical Investigation Directorate, 59th Medical Wing, Lackland AFB, TX. In 1996, she was Commander of the 421st Medical Support Squadron and then became Associate Chief of the Division of Altitude and Hyperbaric Physiology at the Armed Forces Institute of

Pathology. From 1998-2000, she served as Chief of Operations at the 89th Physiological Training Flight, Andrews AFB. In 2000, she transferred to become the 314th Aerospace Physiology Training Flight Commander at Little Rock AFB. From 2002-2005, she was Chief of International Human Factors, European Office of Aerospace Research and Development, in London. In 2005, she became Chief of the Aerospace Physiology and Human Performance Enhancement Division, where she served until 2007, when she accepted her present position.

Lt.Col. Martindale attained board certification in Aerospace Physiology in 2001 and was board certified with distinction as a Hyperbaric Technologist in 1996. She is a member of the American Society for Cell Biology, the Europe Chapter Human Factors and Ergonomics Society, and a Fellow of the Aerospace Medical Association. Within the Aerospace Medical Association she is a member of the Aerospace Physiology Society, the Life Sciences and Engineering Branch, and the Human Factors Association. She has served as a Council Member at Large and on the Science & Technology, Scientific Program, and Nominating Committees.



KENT K. GILLINGHAM AWARD

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.

Brian P. Self, Ph.D., was the 2010 recipient of the Kent K. Gillingham Award for his significant contributions in the field of spatial disorientation (SD) and loss of situational awareness (LSA). The award was established and sponsored by the AMST Group. As a researcher, author, and professor, Dr. Self has made a worldwide impact on the current understanding of SD and the development of countermeasures to reduce its effects on aircrew. His basic research on human perception in flight and his participation in numerous working groups dealing with the topic has established him as a world expert in the areas of SD and LSA.

Dr. Self is currently a Professor in the Mechanical Engineering Department at California Polytechnic State University. He earned a B.S. in Engineering Science and Mechanics in 1988 and an M.S. in Engineering Mechanics in 1991 from Virginia Polytechnic Institute and State University in Blacksburg, VA. From 1988-1991, he was a Graduate Research and Teaching Assistant at Virginia Polytechnic Institute, and then became a Mechanical

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Engineer at the Air Force Research Laboratory in Wright-Patterson AFB, OH, until 1992.

From 1994-1996, while a graduate student, Dr. Self served as Director of the Gait and Motion Analysis Laboratory at the Orthopedic Biomechanics Institute at the University of Utah in Salt Lake City. He earned his Ph.D. in Bioengineering from that university in 1996. After graduation, he became a Biomedical Research Engineer at the Air Force Laboratory at Brooks City-Base, TX, where he served until 1999, when he was promoted to Professor at the Department of Engineering Mechanics, U.S. Air Force Academy, CO. In 2006, he took his current position as a Professor at California Polytechnic.

Dr. Self is a member of the American Society for Engineering Education (ASEE), where he has been Zone IV Chair, a Campus Representative, Mechanics Division Treasurer, Rocky Mountain Section Chair, and has served on the Mechanics Division Executive Board. He is also a member of the Aerospace Medical Association, where he has served on the Leverett Award Committee, the Science & Technology Committee, the Human Factors Executive Committee, and in the Life Sciences and Biomedical Engineering Branch as Treasurer/Secretary, Best Student Paper Award Committee, and Membership Chair. Additionally, he has been involved with the Human Factors and Ergonomics Society, SAFE Association, and the International Sports Engineering Association. He has been a journal reviewer for *Aviation, Space, and Environmental Medicine*, as well as other journals, and has been a Proposal Reviewer for the Workplace Safety and Insurance Board Research Advisory Board in Ontario, Canada.

Dr. Self's awards include the Paul A. Bert Outstanding Aerospace Physiology Researcher award from the Aerospace Physiology Society, the Mechanics Division Best Paper Award at the ASEE Annual Conference, Department Academy Educator from USAFA, the Ferdinand P. Beer and E. Russell Johnston, Jr., Outstanding New Mechanics Educator Award from ASEE, and Instructor of the Quarter from USAFA. He has written over 45 articles, presentations, and abstracts, 4 government technical reports, and over 50 conference presentations. He is also been active as a Faculty Advisor for the Alpha Phi Omega Service Fraternity at California Polytechnic and has volunteered time for a variety of causes, including the Special Olympics, Experimental Design Event Chair of a Science Fair Olympiad, and a conference organizer and committee member for the Colorado Springs Undergraduate Research Forum.

Nominate a Colleague for an AsMA Award!

The nomination form and rules are on our website at: www.asma.org, under "About AsMA", Downloadable materials as well as with the Awards Committee information. For more information, you can contact the Chair at: awards@asma.org



BOOTHBY-EDWARDS AWARD

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.

The 2010 Boothby-Edwards Award was presented to Dougal Watson, MB BS, BScMed, DipAvMed (London), DipAvMed(Otago), DipOccMed(Auckland), MTechMan (AvnHFAc), FRAeS, FAsMA, for his work on behalf of professional airline pilots. The award is sponsored by Harvey W. Watt and Company. Dr. Watson has applied the best principles of Aerospace Medicine to their medical oversight. Since his 2001 appointment as Chief Medical Officer for the Civil Aviation Authority of New Zealand, he has contributed substantially to the worldwide implementation of evidence-based medicine and rational decision-making in the clinical care and medical certification of professional airline pilots. An enthusiastic pilot himself and a keen observer of airline cockpit operations, Dr. Watson brings to his work a professionalism that does great credit to the specialty of Aerospace Medicine.

Dr. Watson earned a medical degree in his native Australia and followed that with 4 years of hospital practice combined with learning to fly. He then served the Royal Australian Air Force as a reserve officer and civilian scientist, earning postgraduate certificates in aviation medicine from programs at Farnborough (UK) and the University of Otago (NZ). His 14 years of work for the air force culminated with a tour as Commanding Officer of the RAAF Institute of Aviation Medicine, Point Cook, Australia.

In 2001, Dr. Watson accepted his current position as Principal Medical Officer for the Civil Aviation Authority of New Zealand, a nation whose geography and remote location give airlines an especially prominent economic role. Embracing his new line of work, Dr. Watson focused on medical issues and regulatory oversight of key importance to professional airline pilots, making signal contributions to medical certification standards, periodicity of physical examinations, aeromedical decision-making, evidence-based risk management, cardiovascular risk assessment, and decisions regarding diabetic pilots and those with psychiatric diagnoses.

Dr. Watson has contributed to international aviation medicine through regular, active participation in meetings of the Aerospace Medical Association, including steadfast advocacy for development of the recently

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produced digital archive of the AsMA journal. He is internationally recognized in the airline medical community for his development and continued hosting of web resources for aviation medical examiners, including an internet mailing list for discussion of issues in aviation medicine, a directory of practitioners, an extensive aeromedical reference database, and a large collection of links to relevant organizations. In 2004, he presented to the AsMA meeting his expert views on evidence-based risk management, followed by publication of a landmark paper on that topic in *Aviation, Space, and Environmental Medicine* (Aviat Space Environ Med 2005; 76:58–62). In 2008 Dr. Watson was an invited participant in an international panel on periodicity of physical examinations sponsored by the Civil Aviation Medical Association. Other areas he has addressed include in-flight medical events in long-haul flying (a major concern for Air New Zealand) and considerations related to age- or individually determined criteria for retirement of airline pilots, where he marshaled arguments against the arbitrary “age 60” rule then extant in the U.S.

In support of professional airline pilots, Dr. Watson has logged cockpit observation experience in most current passenger transport aircraft types operated on domestic and international routes by Australian and New Zealand airlines. In addition, he has accumulated more than 600 hours of flight time in dozens of aircraft types, including military and civilian aircraft large and small, with piston, rotary-wing, and jet engines.



MARY T. KLINKER AWARD

Established by the Flight Nurse Society 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 Impact Instrumentation.

Lt.Col. Eleanor (Carolyn) Jarrett was the 2010 recipient of the Mary T. Klinker Award. The award was sponsored by Impact Instrumentation. Lt. Col. Jarrett has been an extremely focused flight nurse throughout her 32-year career. She is currently Chief, Clinical Operations, Joint Transportation Reserve Unit/954 Reserve Support Squadron, Scott AFB, IL. As flight nurse, flight clinical coordinator, and senior patient movement clinical coordinator, she has provided guidance to aeromedical flight crews the world over while ensuring that policies, procedures, and operations system manuals have kept pace with “real world” changes. As the senior nurse executive of the reserve unit at

United States Transportation Command, she was responsible for the quality of clinical training and staff currency within the surgeon general’s multi-service team.

Lt.Col. Jarrett started her career as an LPN at St Luke’s Hospital in Kansas City, MO, working for 9 years on the Medical-Surgical and Neuro-Surgical Units. During this time she obtained her 2-year Nursing Degree in 1984 from Penn Valley Community College, Kansas City, MO, and her BSN from Graceland University, Lamoni, IA, in 1987. Commissioned in the Air Force that same year, Lt.Col. Jarrett’s first assignment was at Sheppard AFB, TX, where she was a staff nurse in the Labor and Delivery Unit for 4 years. Then Captain Jarrett served as a primary member on several hospital nursing committees, taught childbirth classes, was a certified instructor for both cardio-pulmonary resuscitation and neonatal resuscitation programs, and was selected as eve/night shift supervisor.

Lt.Col. Jarrett’s next assignment was to the 57th Aeromedical Evacuation Squadron, Scott AFB, IL, following upgrade to medical crew director. She was tasked with providing care to service members, dependents, retirees, and other eligible patients in the Department of Defense system from 1991-1993. During this time she served in the Patient Airlift Center and Aeromedical Evacuation Control Center, which became the Global Patient Movement Requirements Center in 1993 under the newly established U.S. Transportation Command.

As part of this transition, Lt.Col. Jarrett was involved in decisions to shape the current validation and in-transit visibility system. Operating policies and procedures for this global oversight team were a constant work in progress during the time she was becoming flight clinical coordinator. She worked in the control center and crewed missions for 8 years, including responses to hurricanes, earthquakes, aircraft mishaps, and redistribution of patients to tertiary medical care on a more scheduled basis.

In the 2001-2003 timeframe as a senior patient movement clinical coordinator, Lt.Col. Jarrett played a pivotal role in redrafting the computer entry manual for all services. She was deployed to support contingency aeromedical operations from Jordan to Afghanistan/Uzbekistan to Djibouti for two different 6-month tours. As a trainer on the computer system, she provided “just in time” training for teams going overseas to combat hospitals and mobile air staging facilities, also virtually training countless staff who were unable to receive classroom training prior to their arrival in the area.

To date she remains the senior nurse of the U.S. Transportation Command’s Surgeon General’s reserve unit. She oversees the training and currency of 28 staff from the U.S. Army, Navy, Air Force, and Coast Guard. The coordination of the enlisted clinical staff members—regulators and the nurse officers—patient movement clinical coordinators requires her experience and corporate knowledge to maintain overall flawless mission execution and patient safety.



RAYMOND F. LONGACRE AWARD

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 Genevolve Vision Diagnostics.

Norbert Kraft, M.D., received the 2010 Raymond F. Longacre Award. The award is now sponsored by Genevolve Vision Diagnostics. Dr. Kraft was cited for his psychological research of human factors in aviation, which has focused attention on the critical issue of how team decisions are affected by stressors on U.S. space missions. He has developed isolation chamber studies, psychosocial and physiological countermeasures, training programs, and selection procedures for astronauts. He also spearheaded efforts to study the effects of prolonged isolation and confinement on the mental health of astronauts and implemented wireless physiological measurements to improve data quality and measurement abilities.

Dr. Kraft has over 16 years of experience in aviation and aerospace research and development. His primary area of expertise is developing physiological and psychological countermeasures to combat the negative effects of long-duration spaceflight. Prior to working at NASA he designed standards for using bicycle ergometry to assess cardiovascular parameters and developed a health risk score and training program for pilots and patients with cardiological problems. He co-developed and improved the rehabilitation machine "Meditrain," an enhancement method and therapy for muscle and neurological problems and the exercise machine "MotoMIR" used on the Mir station as a countermeasure for bone demineralization and muscle deconditioning due to microgravity.

Dr. Kraft's experiences span Europe, Asia, and the United States, where he has worked for several international space agencies. He was Principal Investigator and selected by the Russian Space Agency as Commander of the international crew during 110 days of the 278-day spaceflight simulation experiment in Moscow, Russia, the longest isolation chamber project ever performed. He designed and supported the Japanese Space Agency's first isolation chamber project for medical and psychological research and was the first to incorporate isolation chamber results in astronaut selection.

Since 2002 Dr. Kraft has been developing new approaches to enhance team performance for exploration missions, to enable distributed crews to respond to unanticipated problems and to collaborate effectively under task stressors associated with space missions. His research at NASA includes identifying biomedical

correlates of psychosocial decrements affecting team performance and evaluating and improving physiological monitoring tools. He drove ground-breaking research efforts to study effects of prolonged isolation and confinement on the mental health of astronauts, to ultimately enable prolonged habitation of the International Space Station and space exploratory missions to Mars and beyond.

Dr. Kraft has been investigating and developing countermeasures for work schedule related alertness decrements in pilots of a major South American airline. His research evaluates cognitive decrements during short- and long-haul flights in pilots and the physiological and psychological workload of flight attendants on long-haul flights. His findings may lead to changes in flight schedule regulations. He co-founded the Mental and Physical Performance Improvement Group in 2008 with an office in Miami and Lima, Peru (www.mpigp.com). At the request of the Department of Homeland Security, Dr. Kraft has been developing requirements for physiological monitoring systems which will improve incident commanders' situational awareness by reporting real-time health status of first responders. At the request of the FAA, he evaluated the impact of schedule changes on sleep quantity, sleep quality, and fatigue to increase opportunities for restorative sleep and to reduce the fatigue of safety-related air traffic service providers.

Dr. Kraft is an author on over 38 papers in the field of aerospace medicine, including a seminal paper on intercultural crew issues in long-duration spaceflight. He has an M.D. from University Vienna, Austria, and is a Fellow of the Aerospace Medical Association.



THEODORE C. LYSTER AWARD

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 Eagle Applied Sciences.

Warren S. Silberman, D.O., M.P.H., was the 2010 recipient of the Theodore A. Lyster Award for outstanding achievement in the general field of aerospace medicine. The award is sponsored by Eagle Applied Sciences. Dr. Silberman has significantly improved civil aeromedical certification policies and practices for pilots of all classes through his medical training and administrative skills. He is also a frequent and effective communicator—and champion—nationally and internationally, of the science and art that underlie the application of aerospace medical principles to civil aviation safety.

See SILBERMAN, p. 711.

Dr. Silberman was originally from Philadelphia, PA, and now resides in Edmond, OK. He has been the Manager of the Aerospace Medical Certification Division at the Civil Aerospace Medical Institute since June 1997. He came from the United States Army Medical Corps, starting out as a Flight Surgeon in the U.S. Army for 12 years. His last assignment was as the Commander of Raymond W. Bliss Army Hospital, Ft. Huachuca, AZ. He was the Oklahoma State Air Surgeon with the Air National Guard from 2001 until his retirement in August 2005.

Dr. Silberman received his B.A. from Temple University in 1971 and his D.O. from Iowa College of Osteopathic Medicine & Surgery in 1974. He served a 1-year internship at Lancaster Osteopathic Hospital in Lancaster, PA, then a residency at Community General Osteopathic Hospital in Harrisburg, PA, from 1975-1978. He earned an M.P.H. at the University of Texas Health Sciences Center of Houston in 1991 and then served a residency in Aerospace/Preventive Medicine at the USAF School of Aerospace Medicine at Brooks AFB, TX, from 1991-1992.

Dr. Silberman is Board Certified in Internal Medicine and Preventive/Aerospace Medicine. He is a Fellow of the American Osteopathic College of Internists, American Osteopathic College of Occupational and Preventive Medicine, and the Aerospace Medicine Association. He has given frequent lectures to the Aviation Medical Examiner community and pilot advocacy organizations such as the Airline Pilots Association, Aircraft Operators and Pilots Organization, Experimental Aircraft Association, National Agricultural Aviation Association, and National Warbirds Association. He is a regular writer for the Federal Air Surgeons Bulletin.

Dr. Silberman's awards include the Order of Military Medical Merit and the Legion of Merit from the U.S. Army Surgeon General, Flight Surgeon of the Year from the FAA Office of Aerospace Medicine twice, an award from the Air Line Pilots Association for outstanding medical certification of air line pilots, Field Instructor of the Year from the USAF Residents in Aerospace Medicine two years in a row, and Aerospace Medicine Instructor of the Year from the USAF Residents in Aerospace Medicine. He has also received a President's Commendation from and is a Fellow of the Civil Aviation Medical Association, and received the Boothby-Edwards Award from the Aerospace Medical Association in 2009.

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JOHN A. TAMISIEA AWARD

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.

Guillermo J. Salazar, M.D., M.P.H., was the 2010 recipient of the John A. Tamisiea Award for his foresight and dedication to enhancing safety in civil aviation operations. The award is established and sponsored by the Civil Aviation Medical Association. Dr. Salazar was responsible for the development of the Night Vision Goggle (NVG) orientation facility at the FAA's Civil Aerospace Medical Institute (CAMI). Due to his recommendations and perseverance, the CAMI NITE Lab facility and funding were secured, equipment purchased, instructor training completed, and the initial orientation curriculum developed. Dr. Salazar continuously shares his knowledge and experience with Aviation Medical Examiners, operators, and scientists, and has been an invited speaker on the subject of NVGs at international conferences. He also wrote the FAA Safety Alert For Operators (SAFO-09007, 3/6/2009): "Night Vision Goggle Advisory Pertaining to Certain Red Color Light Emitting Diodes (LED)". This alert will help avoid incidents like the one that occurred in Canada involving a military crew not seeing LED obstruction lights on a tower through NVGs due to wavelength incompatibility.

Dr. Salazar received a Bachelor of Science degree from the University of Puerto Rico in 1974 and a Doctor of Medicine degree in 1979 from the University of Puerto Rico's School of Medicine. Following his internship at Georgetown University Hospital in Washington, DC, he was commissioned in the U. S. Navy and completed flight surgeon training in 1981. As part of the aeromedical designation he completed basic flight training at NAS Whiting Field, FL. While on active duty he served as the Wing Flight Surgeon TRAWING 4, NAS Corpus Christi, TX, followed by a tour as a staff physician at Naval Hospital San Diego, then as Wing Flight Surgeon, HS Wing-1, NAS Jacksonville, FL, with a final tour as the senior flight surgeon at Patrol Squadron (VP)-30 also in Jacksonville.

Dr. Salazar earned a Master in Public Health degree from the Uniformed Services University for the Health Sciences in Bethesda, MD, in 1990, and transferred to the U. S. Naval Reserve.

He joined the Federal Aviation Administration (FAA) in 1990 as the Deputy Regional Flight Surgeon in Southern Region in Atlanta, GA. In 1992 he was selected as the Regional Flight Surgeon, Southwest Region, Fort

See SALAZAR, p. 712.

Worth, TX, and remains in that capacity at the present time. He was very active in the Naval Reserve, including one tour as Commanding Officer Fourth MAWMED in Atlanta. He retired from the Naval Reserve in 2004 after multiple deployments, including 2 years in Operations Enduring Freedom and Iraqi Freedom.

Dr. Salazar is certified by the American Board of Preventive Medicine as a specialist in Aerospace Medicine and is licensed to practice medicine in Texas. He is a Fellow of the Aerospace Medical Association; an Assistant Clinical Professor at the University of Texas Medical Branch in Galveston, TX; an Academician of the International Academy of Aviation and Space Medicine; a former member of the Aerospace Medicine Examination Committee of the American Board of Preventive Medicine; past chairman of the Education and Training Committee of the Aerospace Medical Association; and past President of the Iberoamerican Association of Aerospace Medicine. He has received several military awards and decorations, including the Air Medal with two strike flights, two Navy Commendation Medals, a Navy Achievement Medal, and the Secretary of Transportation's War on Terrorism Medal. He has numerous publications and articles to his credit, including chapters in DeHart's and later Davis' *Fundamentals of Aerospace Medicine*. He is a regular speaker at aviation and medical events both in the U.S. and abroad, and is a private pilot.



ARNOLD D. TUTTLE AWARD

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 Aviation, Space, and Environmental Medicine. Sponsored by Wyle Laboratories.

Desmond M. Connolly, Ph.D., M.A., M.B.B.S., received the 2010 Arnold D. Tuttle Award, which is sponsored by Wyle, for his role as lead author of "Low Contrast Acuity at Photopic and Mesopic Luminance Under Mild Hypoxia" (*Aviat Space Environ Med* 2009; 80:933-40). That article investigated the effect of oxygenation state on contrast thresholds required to maintain visual acuity in conditions of low luminance and low contrast. The Contrast Acuity Assessment test was used to measure contrast thresholds needed for gap orientation discrimination and pupil diameter measurements assessed the influence of oxygenation state on pupil size. The authors found that hypoxia degrades low contrast acuity and that supplemental oxygen can extend functionally useful vision to lower

light levels. They felt that these findings were relevant to military night flying, viewing an external scene directly or through night vision devices, or viewing dimly lit flight deck instruments.

Dr. Connolly qualified in medicine at the University of London in 1982, completed training in General Practice in 1990, and gained the Diploma in Aviation Medicine of the Faculty of Occupational Medicine of the Royal College of Physicians in 1991. He served as a Royal Air Force Medical Officer from 1985 until 2001, including three tours as Senior Medical Officer on a variety of RAF stations, retiring with the rank of wing commander. He served in Germany for 3 years towards the end of the Cold War, was deployed to Dhahran in Saudi Arabia during the first Gulf War in 1991, and was deployed to Croatia with the Support Helicopter element of the UK Rapid Reaction Force during the Balkans Crisis in 1995. In 1998 he graduated from the first Joint Services Advanced Command and Staff Course and completed a Master's degree in Defence Studies from Kings College, London. He then served for 3 years in the post of Wing Commander, Medical Operations, at Headquarters Strike Command, where he was responsible for operational planning and tasking of RAF medical support to overseas operations and exercises and for overseeing the work of the RAF Aeromedical Evacuation Service. This time included planning and conduct of operations in Kosovo and Sierra Leone and a major exercise in Oman that preceded Operation TELIC in Iraq. He has been engaged full time in human sciences research at QinetiQ since 2001, where his main interests are aerospace medical research, altitude protection and visual physiology. He is completing a part-time research Ph.D. with City University, London, during which he has been investigating effects of aviation-related respiratory gas disturbances on human vision in dim light.

In his position at QinetiQ, Dr. Connolly has personally supervised over 300 human decompressions and over 2880 high G exposures. He has contributed to studies using positive pressure breathing, a variety of breathing gas mixtures, thermal chambers, cold water immersion, sleep studies, whole body vibration, biomechanics, and clinical trials. He has also been deputized as the QinetiQ medical representative at an independent research Ethics Committee. Additionally, he is the technical lead for the business group, provides medical support to wider QinetiQ projects, and attends the Human Factors National Advisory Committee as a Physiological Protection Sub-group representative.

Dr. Connolly's awards include the United Nations Peace Forces Medal, the Stewart Memorial Travel Award for service in the Balkans conflict, the Kuwait Liberation Medal, and the Gulf Medal and Clasp. He is a member of the Royal College of General Practitioners, the Royal Aeronautical Society, and the Aerospace Medical Association. He holds a Diploma in Aviation Medicine from the Royal College of Physicians, Faculty of Occupational Medicine.



HARRY G. MOSELEY AWARD

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 Lockheed-Martin Corporation.

Susan P. Baker, M.P.H., Sc.D. (Hon.), was the recipient of the 2010 Harry G. Moseley Award for her role as founder of the scientific discipline of injury epidemiology and prevention. The award is sponsored by Lockheed Martin Aeronautics. Prof. Baker has pioneered the application of the public health model to aviation safety research and training as well as contributing to a better understanding of the determinants of occupant survival in aviation crashes, the etiology of pilot error, and the relationship between pilot aging and safety performance. She is recognized as one of the most pre-eminent researchers and teachers in injury epidemiology. She has made outstanding contributions to flight safety and continues to be a tireless and tenacious explorer of aviation frontiers.

Prof. Baker earned her B.A. in zoology from Cornell University in 1951 and her M.P.H. in epidemiology from The Johns Hopkins University in 1968. She is currently Professor of Health Policy and Management at The Johns Hopkins School of Public Health. She holds joint appointments in Environmental Health Sciences and in the departments of Pediatrics and Emergency Medicine at the Johns Hopkins Medical School. An epidemiologist specializing in injury prevention, she was the first Director of the Johns Hopkins Injury Prevention Center.

Prof. Baker is a member of the Armed Forces Epidemiological Board. She served as vice chair of the National Academy of Science's Committee on Trauma Research and as president of the American Association for Automotive Medicine. She is credited with the development of the Injury Severity Score, which has been used as the standard tool for measuring the severity of injury by clinicians and researchers worldwide in the past three decades. Her research has addressed many aspects of aviation safety as well as motor vehicle crashes, occupational injuries, and other injury prevention topics. She has published eight textbook chapters, more than 200 articles in medical and public health journals, magazine articles, and three books, including "The Injury Fact Book," the most widely referenced text in the field of injury prevention and control.

Prof. Baker's interest in aviation safety led her to become a licensed private pilot at the age of 56. She has taken primary and advanced courses in Airplane Crash Survival Investigation and served on FAA-sponsored expert panels on shoulder restraint use and on the Age 60

Rule. Her research has included crashes related to mountain flying, instructional flights, commuter flights, and air medical transport. Her Aviation Safety course at Johns Hopkins has encouraged many students to publish articles in the field. She is an ardent advocate of policy changes that will prevent injuries. Much of her teaching and research is designed to influence the legislators, administrators, media representatives, and others whose decisions can determine the likelihood of injury for thousands of people.

Prof. Baker's contributions have led to awards from the American Public Health Association, the Association for the Advancement of Automotive Medicine, and the American Association for the Surgery of Trauma, among others. She is recipient of the prestigious Charles A. Dana Award for Pioneering Achievements in Health. In 1998 the University of North Carolina awarded her an honorary Doctor of Science degree. She is especially pleased to have been named "Bad Guy of the Month" by Road Rider motorcyclist magazine. She is a Fellow of the Aerospace Medical Association, has served on the Advisory Editorial Board twice and as co-chair of the Aviation Safety Committee, and is an honorary member of the Wing. She received the Association's John Paul Stapp Award in 2005. And now at age 80 she has just received the 2010 Frank A. Calderone Prize from the Mailman School of Public Health at Columbia University, its highest honor.



JULIAN A. WARD AWARD

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 relating 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.

Maj. Kevin J. Bohnsack, USAF, MC, received the 2010 Julian E. Ward Memorial Award for his outstanding commitment to developing the art and science of aerospace medicine. The award is sponsored by the Society of U.S. Air Force flight Surgeons. Maj. Bohnsack has completed projects that advance the education of flight surgeons in primary training, in residency training, and in the field. He has presented clinical cases and original research at international scientific meetings, developed a national clinical practice guideline in aerospace medicine, and published two scholarly papers. He has been extraordinarily active in research and at professional meetings and has proven to be a gifted educator.

See BOHNSACK, p. 714.

Maj. Bohnsack is currently the Chief of Aerospace Medicine at Offutt AFB, NE, where he is the program manager for all aerospace, preventive, and occupational medicine activities on base. He is a recent graduate of the residency in aerospace medicine (RAM) at the USAF School of Aerospace Medicine in San Antonio, TX. He earned a B.S. in biology and German in 1994 from Albion College, Albion, MI, and an M.D. in 1998 from Northwestern University Medical School in Chicago. He served in a Family Practice Residency and then entered active duty in 2001. He has completed the Aerospace Medicine Primary Course at the USAF School of Aerospace Medicine at Brooks AFB, TX, the Air Command and Staff College, and earned an M.P.H. in 2008 from the University of Michigan.

From 2001-2004, he was Squadron Medical Element at the 75th Fighter Squadron, Pope AFB, NC. He then became Flight Commander, Chief of Flight Medicine, at Spangdahlem AB, Germany, until 2007, when he attended the School of Public Health, University of Michigan, in Ann Arbor. In 2009, he took up the duties of his present position.

Major Bohnsack served as a squadron flight surgeon for the famous Flying Tigers during Operations Southern Watch in Kuwait, Enduring Freedom in Afghanistan, and Iraqi Freedom at Tallil Air Base, Iraq. Since that time, he has gained additional experiences in Europe, serving as the flight commander and chief of flight medicine at Germany's only remaining fighter air base. During his tenure at Spangdahlem, he deployed as the SGP to Manas Air Base, Kyrgyz Republic. He has also done humanitarian work in and around Bagram, Afghanistan, in 2002 and the city of Tamale, Ghana, for Medflag 2006.

Maj. Bohnsack has presented groundbreaking research that applied aeromedical human performance/human systems integration principles to study flight surgeon use of electronic medical records at the American Medical Informatics Association's annual symposium. This research was published in their proceedings. His clinical practice guidelines on blood/marrow donation and anemia have been approved for publication by the American Society of Aerospace Medicine Specialists and he has had a "You're the Flight Surgeon" article published in *Aviation, Space, and Environmental Medicine* (*Aviat Space Environ Med* 2009; 80:832-4).

Maj. Bohnsack's awards include the Meritorious Service Medal with oak leaf cluster, the Air Force Commendation Medal with two oak leaf clusters, medals for Operations Enduring Freedom and Iraqi Freedom, the National Defense Service Medal, the Armed Forces Expeditionary Medal, the AF Longevity Service award, and the AF Training Ribbon with oak leaf cluster. He was also Chief Resident at the Marquette General Hospital Family Practice Program, was U.S. Air Force Europe Flight Surgeon of the Year, and is a member of the Phi Beta Kappa Honor Society.

He is a Diplomate of the American Academy of Family Practice and a Diplomate in Aerospace Medicine of the American Board of Preventive Medicine.



MARIE MARVINGT AWARD

Established and sponsored by the French Aerospace Medical Association 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.

Lt.Col. Anthony P. Tvaryanas, MC, USAF, was the 2010 recipient of the Marie Marvingt Award. The award was established and sponsored by the French Aerospace Medical Association. Lt. Col. Tvaryanas was cited for his visionary and groundbreaking work in human systems integration. He gathered evidence of integration gaps in remotely piloted aerial systems through scientific studies and then instituted aeromedical recommendations for selection, training, and use of Predator pilots and sensor operators. His efforts have had far-reaching results, redefining the concept of operations, the safety and efficacy of the unmanned aerial mission, and the wellness of individual operators. He is currently is a doctoral student in the Modeling, Virtual Environments, and Simulation (MOVES) Institute at the Naval Postgraduate School, Monterey, CA. His dissertation research is focused on the application of human performance modeling and simulation to human systems integration planning within the early phases of defense acquisition.

Lt.Col. Tvaryanas graduated from the George Washington University in 1993 with a B.S. in chemistry. He attended medical school at the Uniformed Services University of the Health Sciences, Bethesda, MD, and earned a Doctor of Medicine degree in 1997. He completed a transitional internship at the USAF's Malcolm Grow Medical Center, Andrews AFB, MD, in 1998 and served as the squadron medical element flight surgeon for the 99th Air Refueling Squadron, Robins AFB, GA, through 2001. He then attended Tulane University's School of Public Health and Tropical Medicine in New Orleans, LA, and earned a Masters of Public Health and a Masters of Tropical Medicine in 2002. From 2002-2004, Lt. Col. Tvaryanas was a medical resident at the USAF School of Aerospace Medicine, Brooks City-Base, TX, and earned board certifications in aerospace medicine in 2004 and occupational and environmental medicine in 2005. He was a human performance researcher and

See TVARYANAS, p. 715.

TVARYANAS, from p. 714.

the human systems integration lead for unmanned aircraft systems at the 311th Performance Enhancement Directorate, Brooks City-Base, TX, until 2007, when he began his advanced degree studies at the Naval Postgraduate School.

Lt.Col. Tvaryanas' awards include the Meritorious Service Medal, the Aerial Achievement Medal, the Air Force Commendation Medal with two devices, the National Defense Service Medal, the Armed Forces Expeditionary Medal, the Air and Space Campaign Medal, and the NATO Medal. He is an Associate Fellow of the Aerospace Medical Association and a member of the American College of Occupational and Environmental Medicine, the American Medical Association, and the Society of U.S. Air Force Flight Surgeons. He has had four important articles published in *Aviation, Space, and Environmental Medicine* on the topics of human factors classification in remote pilot operations (*Aviat Space Environ Med* 2006; 77:724–32), visual scan patterns in pilots of unmanned aerial vehicles (*Aviat Space Environ Med* 2004; 75:531–8), fatigue in military shift workers (*Aviat Space Environ Med* 2006; 77:1166–70), and human systems integration in remotely piloted aircraft (*Aviat Space Environ Med* 2006; 77:1278–82).



JOE KERWIN AWARD

Established and sponsored by Wyle 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.

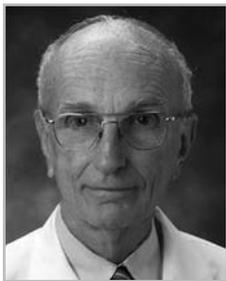
Michael R. Barratt, M.D., was the first recipient of the Joseph Kerwin Award. The award was established and sponsored by Wyle. Dr. Barratt was recognized for leadership, passion, and accomplishment in aerospace medicine. From his days as a Wright State University resident, through a distinguished career as a NASA Flight Surgeon and astronaut, his peers have sought his guidance and leadership. He is an exemplary role model for his colleagues and his many space medicine accomplishments include his pioneering work in establishing medical operations in Star City, Russia, for the Shuttle-Mir Program, leading the ISS medical operations team for several years, and publishing the first text on Clinical Space Medicine.

A native of Washington state, Dr. Barratt graduated from the University of Washington in 1981 with a B.S. He earned his M.D. at Northwestern University in 1985 and completed a 3-year residency in internal medicine at Northwestern in 1988. He completed a year of Chief Residency at Veterans Administration Lakeside Hospital in Chicago in 1989 and a residency and Master's in aerospace medicine at Wright State University in 1991. He is board certified in internal and aerospace medicine.

In 1991, Dr. Barratt joined NASA Johnson Space Center as a project physician with KRUG Life Sciences working on medical systems for Space Station Freedom. In 1992 he was assigned as NASA Flight Surgeon working in Space Shuttle Medical Operations. He was assigned to the joint US/Russian Shuttle-Mir Program in 1994, working and training extensively in the Cosmonaut Training Center, Star City, Russia, in support of the Mir-18/STS-71 and subsequent missions. From 1995 through 1998, he served as Medical Operations lead for the ISS. He then served as lead crew surgeon for first expedition crew to ISS from 1998 until his selection as an astronaut candidate-mission specialist in 2000. Following the completion of 2 years of training and evaluation, he was assigned technical duties in the ISS Operations Branch. Assigned to long-duration flight training in 2005, he subsequently launched on Soyuz TMA-14 on March 26, 2009, to the ISS and served as a member of Expeditions 19 and 20. This increment included the transition from three to six ISS crewmembers, two EVAs, two visiting Shuttles, and the arrival of the first Japanese H-II Transfer Vehicle. Completing 199 days in space, he landed on the Kazakh Steppe on October 11, 2009. He is currently assigned to the STS-133 mission to deliver a logistics module to the ISS.

Dr. Barratt is a member of the American College of Physicians, the American Institute for the Advancement of Science, and the Aerospace Medical Association. He serves as Associate Editor for Space Medicine for the journal *Aviation, Space, and Environmental Medicine* and is senior editor of the textbook *Principles of Clinical Medicine for Space Flight*. His awards include the W. Randolph Lovelace Award from the Society of NASA Flight Surgeons, the Melbourne W. Boynton Award from the American Astronautical Society, the Julian Ward Award from the Society of USAF Flight Surgeons, and the Wright State University Outstanding Graduate Student in Aerospace Medicine award.

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JOHN ERNSTING AWARD

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.

Frank S. Pettyjohn, M.D., was the first recipient of the John Ernsting Award. The award was established and sponsored by Environmental Tectonics Corporation. Dr. Pettyjohn was honored for his long and distinguished career in aerospace medicine that has enhanced the links between science and the clinical practice of aerospace medicine. He has held an extensive array of appointments in clinical and aerospace medicine while serving as a medical officer in the U.S. Army, where he gained broad operational experience. He has had a significant impact on aviation medicine education and training in cardiovascular problems and prevention in aircrew. He has published more than 60 papers and countless abstracts on aerospace, internal, and cardiological medicine and remains a highly active teacher.

Dr. Pettyjohn is currently a Professor of Medicine and Emergency Medicine at the College of Medicine, University of South Alabama in Mobile, AL. A native of Delaware, he graduated in 1956 from the University of Delaware with a B.S. in Civil Engineering. He subsequently entered the U.S. Army as a 2nd Lieutenant in the Corps of Engineers. Following a tour in Korea, he returned to attend Hahnemann University School of Medicine, Philadelphia, PA, graduating in 1963 with an M.D. degree. After an internship at Madigan Army Medical Center, Fort Lewis, WA, he attended the U.S. Navy School of Aviation Medicine and then the U.S. Army School of Aviation. He received his designation as a Naval Flight Surgeon and an Army Flight Surgeon and served his initial Flight Surgeon tour at Simmons Army Airfield, Fort Bragg, NC.

Dr. Pettyjohn then served in Vietnam as a Flight Surgeon for the 17th Combat Aviation Group in 1966. Upon his return, he entered internal medicine residency training at Madigan Army Medical Center, Fort Lewis, WA. He then began initial residency training in aerospace medicine as a Post Doctoral Fellow in Public Health Preventive Medicine at the University of Washington, Seattle, WA. He returned to Madigan Army Medical Center to complete a Fellowship in Cardiology. He completed his residency in aerospace medicine at Brooks Air Force Base in 1973. During 1973, he served as Cardiologist and Flight Surgeon for Operation Homecoming to return Vietnam POWs to the United States. He joined the U.S. Army

Aeromedical Research Laboratory, Fort Rucker, AL, in 1973.

In 1977, Dr. Pettyjohn became Deputy Commander/Chief, Professional Services, at the U.S. Army Aeromedical Center and Lyster Army Community Hospital, Fort Rucker, AL. He also served as the Commander, U.S. Army Aeromedical Activity. In 1980, he moved to the Naval Aerospace Medical Research Laboratory in Pensacola, FL, as Director of the Applied Aeromedical Research Program. In 1982, he became Commanding Officer, U.S. Army Medical Department Activity and Winn Army Community Hospital, Fort Stewart, GA. In 1985, he returned to the Naval Aerospace Medical Institute in Pensacola, FL, as Cardiologist and Army Liaison Officer until 1986, when he joined the University of South Alabama College of Medicine, Mobile, AL, as a Professor. He is Chairman of the Department of Emergency Medicine for the University of South Alabama Medical Center. He also serves as a Cardiology Consultant to the Federal Aviation Administration and serves as the Medical Director of the Emergency Medical Services Department of Education, College of Allied Health and Professions for the University of South Alabama. Additionally, he is the Medical Director for the Gulf Coast Region VI Emergency Medical Services.

Dr. Pettyjohn was recalled to the U.S. Army in 1991 as a Cardiologist and Aviation Medicine Consultant at the U.S. Army Aeromedical Center during Operation Desert Shield/Desert Storm. He was a member of the team that returned the U.S. POWs from Desert Storm to the United States. In December 2008, he again returned to active duty in the U.S. Army as a Flight Surgeon and Cardiologist with the 345th Combat Support Hospital in Tikrit, Iraq. He returned to the University of South Alabama in 2009.

Dr. Pettyjohn's military awards include the Combat Medical Badge, the Legion of Merit, Bronze Star, Meritorious Service Medal, Air Medal with two oak leaf clusters, U.S. Army Commendation Medal, U.S. Navy Commendation Medal, and U.S. Air Force Commendation Metal. He holds designation as a U.S. Army Master Flight Surgeon, U.S. Air Force Flight Surgeon, and U.S. Naval Flight Surgeon. He is board certified in Internal Medicine, Cardiovascular Disease, Preventive Medicine (Aerospace Medicine), and Emergency Medicine.

A Fellow of the Aerospace Medical Association, Dr. Pettyjohn served on the AsMA Executive Council from 1979-1982. He is also a Fellow of the American College of Cardiology, the American College of Physicians, and the American College of Chest Physicians. In addition, he is a member of the Civil Aviation Medical Association and the U.S. Navy Aerospace Medicine Residency Advisory Committee. He also serves as a Reviewer for *Aviation, Space, and Environmental Medicine* journal of the Aerospace Medical Association. As a member of the International Academy of Aviation and Space Medicine, he served as Chancellor from 1998-2003, 1st Vice President in 2003-2005, and President in 2005-2007.

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NEWS OF MEMBERS

Marck Haerrens, M.D., Pilot-Physician and IAMFSP member, left the Royal Netherlands Air Force in May 2009.



He has founded Wings of Care, an organization with aeromedical expertise that focuses on improving patient safety in clinical medicine in the Netherlands (www.wingsofcare.nl). He is still certified as a trauma surgeon and pilot (CPL-H) and will remain a colonel in the RNLAf-reserve forces.

Focus on Members: Col. Lee H. Harvis, USAF, MC

Col. Lee H. Harvis is the 23rd Air Force Surgeon, Chief of Aerospace Medicine, and Chief of Human Systems Integration, Air Force Special Operations Command (AFSOC), Hurlburt Field, FL. In addition, he is a UH-1N aircraft commander for the 6th Special Operations Squadron and manages the medical waiver program for over 2000 AFSOC flyers. He also oversees AFSOC's Bioenvironmental and Public Health programs. He is board certified in Aerospace Medicine, board eligible in Occupational Medicine, and is one of the Air Force's few pilot-physicians.



During his career, Col. Harvis served as the Commander of the 51st Aerospace Medicine Squadron, 51st Fighter Wing, Osan Air Base, Republic of Korea (ROK), as a rescue liaison to the NASA Space Shuttle program and commanded the 66th Expeditionary Rescue Squadron (HH-60 helicopters) in Operation Northern and Southern Watch. In January 2002, following the events of "9-11," he was deployed to Operation Enduring Freedom, where he established a forward operating base in Kandahar, Afghanistan, serving as the 66th Expeditionary Rescue Squadrons first Detachment Commander, and was awarded the Bronze Star. Most recently, he was the Joint Special Operations Air Component Surgeon in Haiti during Operation Unified Response.

Col. Harvis' awards include the Air Medal with one oak leaf cluster, the Aerial Achievement Medal with one oak leaf cluster, the National Defense Service Medal with one star, the Armed Forces Expeditionary Medal, and the Julian E. Ward Memorial Award from the Aerospace Medical Association (AsMA). He is an Associate Fellow of AsMA and has published several articles on subjects including hypertrophic cardiomyopathy and medical certification in the Federal Air Surgeon Bulletin and a "You're the Flight Surgeon" article on essential thrombocytopenia.

Obituary Listing William I. Miller

AsMA recently learned that William I. Miller, of Herndon, VA, died suddenly in April. A native of Indiana, Dr. Miller earned a B.A. at Washington Jefferson College in 1970, then an M.D. at Jefferson Medical School, Thomas Jefferson University in 1974. He went on to graduate from the School of Public Health, University of Michigan, with an M.P.H. in 1985. He was Board certified by the American Board of Family Practice and served for 35 years as a physician in the U.S. Navy. He was a Fellow of the American Academy of Family Practice and an Associate Fellow of AsMA, where he served on the Science & Technology and Aviation Safety Committees.

New Members

- Rodriguez-Jimenez, Wilfredo, B.S., Orocovis, PR (joined in Jan. 2010)
- Aiyenigba, Adejoke A., Lagos, NIGERIA
- Al-Khazaleh, Nawaf Salem, M.D., Al-Mafraq, Jordan
- Al-Rubaye, Salam, 1Lt., Iraqi Air Force, MC, Baghdad, IRAQ
- Allen, Joseph E., M.D., M.S., San Diego, CA
- Allen, Ray, Liberal, KS
- Brake, Barbara E., Maj., USAF, NC, St. Louis, MO
- Butterfield, Joseph S., B.S., Rochester, MN
- DaSilva, Daniel N., Parsippany, NJ
- Djanbatian, Nicole C., 2Lt., USAF, BSC, Columbus, MS
- Duffy, Tim, Lt.Col., USAF, Fruit Heights, UT
- Eleid, Joseph, B.S., Prescott, AZ
- Elich, Danny R., 1Lt., USAF, Alexandria, VA
- Gaska, James, Ph.D., Mesa, AZ
- Griffin, Diane, 1Lt., USAF, Sheppard AFB, TX
- Hodgson, Joni, Capt., USAF, Enid, OK
- Holland, Michael, Double Oak, TX
- Krause, Wolfgang, Col., GAF, Hennef, Germany
- McIntire, Lindsey, B.A., Dayton, OH
- Miki, Takeo, M.D., Ph.D., Ibaraki, Japan
- Moran, Katherine A., Vancouver, WA
- Nerwich, Neil, Sydney, NSW, Australia
- O'Connell, Stephen, Gulf Breeze, FL
- Pankey, Patricia A., Maj. USAF, MC, West Haven, UT
- Porras, Ciro, M.D., San Jose Del Cabo, Mexico
- Reed, Elliot, 1Lt., USAF, Sheppard AFB, TX
- Rey, Peter, 1Lt., USAF, Alexandria, VA
- Rikos, Dimitrios, M.D., Apostolos Pavlos, Greece
- Saint-Jacques, David, M.D., El Lago, TX
- Saltiel-Gracian, William, Hermiston, OR
- Trifilo, Patricia, Abilene, TX
- Wilkinson, Elizabeth, Middlesex, United Kingdom
- Yasutami, Otsuka, Tokyo, Japan
- Young, Was, M.D., Aiea, HI
- Zuhier, Yahya, Capt., RSAF, King Khalid AFB, Khamis Mushait, Saudi Arabia

Meetings Calendar

- July 11-15, Association for Professionals in Infection Control & Epidemiology Inc., New Orleans, LA, Ernest N. Morial Convention Center.** Info: gwhitaker@apic.org; <http://www.apic.org>
- September 26-29, 2010; American Academy of Otolaryngology-Head & Neck Surgery Annual Meeting and OTO Expo 2010; Boston, MA.** Info: http://www.entnet.org/annual_meeting/index.cfm
- October 7-9, 2010; CAMA Annual Scientific Meeting; Pensacola, FL. To be held at the Crowne Plaza Pensacola Grand Hotel.** Info: http://www.civilavmed.com/Meeting_Events.htm
- October 10-14, 2010; 58th International Congress of Aviation and Space Medicine; Marina Bay Sands, Singapore.** Info: www.icasm2010.com
- October 21-24, 2010; American Academy of Environmental Medicine's 45th Annual Scientific Meeting; Hilton La Jolla Torrey Pines, San Diego, CA.** Info: <http://www.aemonline.org/CFP.html>
- October 24-28, 2010; American Osteopathic Association's OMED 2010; Moscone Convention Center, San Francisco, CA.** Info: <http://www.do-online.org/> or contact glapin@osteopathic.org
- October 27-30, 2010; XXVII International Meeting of Aerospace Medicine; Dorado Pacifico Hotel, Zihuatanejo, Guerrero, Mexico.** Info: Luis Amezcua lamezcua@prodigy.net.mx; or visit <http://www.amma.org.mx>
- November 3-6, 2010; The 21st International Symposium on the Autonomic Nervous System; Marco Island, FL.** Info: Anita Zeller, AAS Executive Secretary, American Autonomic Society, 18915 Inca Ave., Lakeville, MN 55044; 952-469-5837; fax 952-469-8424; <http://www.americanautonomicsociety.org>.
- November 8-10, 2010, 48th Annual SAFE Symposium, Town & country Resort and Conventin Center, San Diego, CA.** Info: <http://safeassociation.com>
- November 6-10, 2010; 138th Annual Meeting & Exposition of the American Public Health Association; Denver, CO.** Info: <http://www.apha.org/meetings/>

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