# President's Page

"Two roads diverged in a wood, and I-I took the one less traveled by, And that has made all the difference."

--Robert Frost

In my first President's Page I introduced my over-arching focus for my year as president as being our extended Aerospace Medicine Family. During our meeting in Anchorage, the vast majority of the attendees expressed a feeling that our annual meetings are truly our extended family's reunion. Many lifelong friendships and professional relationships have begun and been cultivated during our annual meetings. These relationships have formed the foundation for many collaborations and continue to solidify our organization as the world leader in Aerospace Medicine. In order to stress our family's diversity, I have listed the 76 nations that are represented by AsMA's memberships:

Antigua, Argentina, Australia, Austria, Bahréin, Barbados, Belgium, Brazil, Canada, Cayman Islands, Chile, China, Colombia, Democratic Republic of the Congo, Costa Rica, Croatia, Cyprus, Czech Republic, Denmark, Ecuador, Ethiopia, Fiji Islands, Finland, France, Germany, Greece, Guatemala, Hong Kong, Hungary, Iceland, India, Iran, Iraq, Ireland, Israel, Italy, Japan, Jordan, Korea, Kuwait, Luxembourg, Malaysia, Malta, Martinique (French Antilles), Mexico, Namibia, Netherlands, Netherlands Antilles, New Zealand, Nigeria, Northern Ireland, Norway, Panama, Peru, Philippines, Portugal, Qatar, Romania, Russia, Saudi Arabia, Scotland, Senegal, Singapore, Slovenia, South Africa, Spain, Sweden, Switzerland, Taiwan, Thailand, Tunisia, Turkey, United Arab Emirates, United Kingdom, United States of America, and Venezuela.

As you can see, every Continent, except for Antarctica, is represented. I challenge our membership to reach out to their fellow citizens and, if you are the only member from your country, reach out to your colleagues that are your neighbors to build and strengthen a relationship based on the Guiding Principles and Goals of AsMA. By sharing our dedication, knowledge, and love of our chosen fields of expertise, we will continue to expand our resources, facilitate collaboration, and, hopefully, add to the world's knowledge related to Aerospace Sciences.

Another key element of our organization that greatly facilitates our families' relationships is the Wing of AsMA. The lifelong friendships that are created and nurtured at our meetings by our spouses have the ability to bring together every aspect of our organizations by increasing the opportunity to meet members from all professional affiliations. Specific to my experience, my wife, Debbie, (Debra A. Anzalone, DrPH, BSN) was the president of the Wing for our 1993 meeting in Toronto and the many friendships that she initiated would not have occurred if we were limited to my professional associations. I encourage all of our members to share your meeting with your spouse or significant other and I am confident this will broaden your relationships within our organization.



Fanancy Anzalone, M.D., M.P.H.

At the meeting in Anchorage our membership approved several By-laws changes, with the most significant one being the change in the process for submitting and approving Resolutions. These By-laws changes allow us to conduct this process electronically and give the approval authority to our Council. In doing so, it affords all of our membership, not just the ones that have the ability to attend our Annual Scientific Meeting, the opportunity to participate in the process.

The updated By-laws follow:

Article XI. Committees, Section 3. Standing Committees Functions, N. Resolutions Committee:

Resolutions may be proposed to the Resolutions Committee by individual members, by standing and special committees, by the Executive Committee and by the Council. Proposed resolutions that have been reviewed and coordinated by the Resolutions Committee shall be submitted to Council and if approved by Council, will be presented to the Association membership. Proposed resolutions will be published on the Association website for a period of at least 60 days to offer Association membership the opportunity to review the proposed resolutions and offer comments. Comments will be submitted by the membership to the Resolution Committee either remotely via electronic means or during the business meeting of the Association. Comments received from members may be incorporated into the resolution by the Resolution Committee after which the revised resolution shall be resubmitted to Council for a vote. Council shall have final approval of resolutions. Processing and voting on resolutions by the Council can be preformed remotely by electronic means or during Council meetings of the Association. The Council and the Executive Committee may, on their own initiative, propose resolutions to be considered at any time or at an Association business meeting.

Lastly, our organization has submitted our new Articles of Incorporation to the State of Virginia. When approved, our Association will qualify as an exempt organization under section 501(c)(3) of the Internal Revenue Code. Once this is completed, we will notify our membership via email and posting on the Association's website.

You can reach me at president@asma.org or call me at 878-338-8777.

# Association News

# Meetings Calendar

September 11-15, 2011; International Congress of Aviation and Space Medicine; Bucharest, Romania. Info: http://www.iaasm.org/congresses.cfm October 6-8, 2011; CAMA Annual Scientific Meeting; Tucson, AZ. Info: david.millett@yahoo.com October 17-19, 2011; Air Medical Transport Conference; St. Louis, MO. Association of Air Medical Services Info: http://www.aams.org October 24-26, 2011; 49th Annual SAFE Symposium; Reno, NV. Grand Sierra Resort and Casino. Info: safe@peak.org; http://www.safeassociation.com

### CAMA Annual Scientific Meeting Tucson, Arizona October 6-8, 2011 "Cognition, Sleep Disorders and Fatigue in Aviation: A Comprehensive View" Superb Faculty AME Seminar Credit Inquiries welcome: david.millett@yahoo.com

# **Future AsMA Meetings**

May 13-17, 2012 Atlanta Hilton Atlanta, GA

May 12-16, 2013 Chicago Sheraton Chicago, IL

May 11-15, 2014 San Diego Hilton San Diego

May 10-14, 2015 Walt Disney World Swan and Dolphin Hotel Lake Buena Vista, FL

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# Abstract Submission Site Opens September 1!

With the 82nd Annual Scientific Meeting behind us, it's time to start planning for NEXT year--The 83rd Annual AsMA Scientific Meeting will be held in Atlanta, GA, May 13-17, 2012. ABSTRACT DEADLINE IS OCTOBER 31.





Aviation, Space, and Environmental Medicine • Vol. 82, No. 7 • July 2011

www.uhms.ora

# 2011 Award Winners of the Aerospace Medical Association

Honors Night Ceremonies of the 82nd Annual Scientific Meeting of the Aerospace Medical Association were held May 12, 2011, at the Hilton Hotel in Anchorage, AK. Seventeen awards for outstanding contributions in aviation and space medicine were presented. The presentations were made by Marian B. Sides, Ph.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.



LOUIS H. BAUER FOUNDERS AWARD Peter B. Mapes, M.D., M.P.H.

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.

Peter B. Mapes, M.D., M.P.H., was the recipient of the 2011 Louis H. Bauer Founders Award during Honors Night Ceremonies, May 12, 2011, in Anchorage, AK, for his extensive research of mishap causes and development of successful business cases for the fighter/attack automatic ground collision avoidance system and helicopter safety technologies. He is known as an "Agent of Change" and his science was what brought the funding to install the Automatic Ground Collision Avoidance System (Auto-GCAS) in the Block 40+ F-16s, F-35s, and F-22s. His work also garnered funding for an Auto-GCAS for the F/A-18. He later formed a team of three officers and garnered the funds for helicopter safety technologies, preventing controlled flight into terrain and improving helicopter crashworthiness. Few have donated as much of their time and expertise to the Aerospace Medical Association (AsMA) as he has.

Dr. Mapes is assigned as the Physician, Operational Readiness and Safety, in the office of the Under Secretary of Defense for Personnel and Readiness at The Pentagon in Washington, D.C. His portfolio includes the epidemiological study of military mishaps and the development of targeted interventions to reduce mishaps, save lives, and preserve equipment. Dr. Mapes serves as a member of the Aviation Safety Technology Working Group of the Acquisition & Technology Programs Task Force (A&TPTF). He also serves with the Human Systems Integration Task Force (HSITF). The A&TPTF and the HSITF are two of nine Task Forces supporting the Defense Safety Oversight Council.

Dr. Mapes was the recipient of AsMA's 2008 Gillingham and 2006 Moseley Awards and has also served on the AsMA Council. He has been Chair of the AsMA Membership and Scientific Program Panel Committees and is an AsMA Fellow. He was born in The Dalles, OR, and hails from Oscoda, MI. He graduated from the U.S. Air Force Academy with a B.Sc. degree in Life Sciences and became a rated military pilot at Craig AFB, Selma, AL. He graduated from the Uniformed Services University of the Health Sciences with both Doctor of Medicine and Master of Public Health degrees. He was an Outstanding Graduate of B-52 Combat Crew Training at Castle AFB, CA, and a Distinguished Graduate of Squadron Officer School at Maxwell AFB, AL. He has served the United States for over a third of a century, including duty as an Air Force Command Pilot in B-52s and as a T-37B Instructor Pilot with over 3000 military flying hours accrued. He is an avid private pilot as well, often flying to the AsMA annual meeting and other events in his own plane.

Col. Mapes was awarded the Malcolm Grow Award in 1993 for being the USAF Flight Surgeon of the Year by the Society of USAF Flight Surgeons. The National Aeronautic Association and the Secretary of the Air Force recognized him with the other four members of the B-52 crew of Griff 21 for the Most Outstanding Military Flight of the Year with the award of the Mackay Trophy in 1993. He is a Past President of the International Association of Military Flight Surgeon Pilots. He holds an adjunct faculty position in Military and Emergency Medicine at the Uniformed Services University of the Health Sciences, F. Edward Heber School of Medicine.



# BOOTHBY-EDWARDS AWARD Prof. Michael Bagshaw, M.B., FFOM, D.Av.Med.

Established in memory of Walter M. Boothby, M.D., pioneer aviation medicine researcher,

and Howard K. Edwards, M.D., clinical practitioner of aviation medicine, this award is presented annually for outstanding research and/or clinical practice directed at the promotion of health and prevention of disease in professional airline pilots. (The separate Boothby and Edwards Awards were given annually 1961–73, and then alternately until 1985.) Sponsored by Harvey W. Watt and Company.

Prof. Michael Bagshaw, M.B., FFOM, D.Av.Med., was awarded the 2011 Boothby-Edwards Award for his initiation and conducting of a research program to investigate the prevalence of unilateral sensori-neural hearing loss amongst pilots employed by a major international airline. He has made significant contributions to the health and safety of the flight crew at British Airways

See BAGSHAW, p. 750.

# BAGSHAW, from p. 749.

and its associated companies, carrying out research in many areas such as cosmic radiation, flight deck noise, cabin air quality, ozone, telemedicine, and in-flight emergency medical care. He played a significant role in the European Cabin Air project and was a voting member of the American Society of Heating, Refrigeration and Air-conditioning Engineers SP161 committee that developed new standards for the commercial aircraft cabin environment. He was also a voting member of the U.S. Federal Aviation Administration Mechanical Systems Harmonization Working Group developing the certified operating envelope for commercial passenger aircraft.

Born in Formby, Lancashire, UK, Prof. Bagshaw earned his medical degree at the Welsh National School of Medicine, followed by a 16-year career in the RAF as a medical officer, Hunter and Jaguar pilot, flying instructor at Cranwell, and test pilot at the RAF Institute of Aviation Medicine. He holds an Airline Transport Pilot license, and is a flight instructor and flight examiner. For 12 years he led the team of Occupational and Aviation Medical Physicians at British Airways, retiring in December 2004. Prior to this he worked in the NHS as a Consultant in Neuro-otology at St. George's Hospital London and as a general practitioner in Berkshire, and then as Establishment Medical Officer at the Royal Aerospace Establishment Farnborough. He is now a visiting Professor at King's College London and Cranfield University. He was appointed Director of Aviation Medicine at Kings College London in 2004 and Visiting Professor at Cranfield University in 2005. His teaching skills are internationally acclaimed. He is Honorary Civilian Consultant in Aviation Medicine to the British Army and Aeromedical Adviser to Airbus and to NetJets Europe.

Past President and Fellow of the Aerospace Medical Association, Past President of the Airlines Medical Directors' Association, and past Chairman of the Association of Aviation Medical Examiners, Prof. Bagshaw is the recipient of a number of honors and awards. These include the Buchanan Barbour Award from the Royal Aeronautical Society, the Award of Merit from the Guild of Air Pilots and Air Navigators, Honorary Member of the Slovenian Aerospace Medical Association, Fellow of the Faculty of Occupational Medicine, and the George J. Kidera Award from the Airlines Medical Directors Association. He is also Past President of the British Medical Pilots Association, an Academician and member of the scientific committee of the International Academy of Aviation and Space Medicine, a Vice Chairman of the Aviation Medicine Group and Fellow of the Royal Aeronautical Society, and a Fellow of the Royal Society of Medicine. He was also the recipient of the 2008 Louis H. Bauer Founders Award from AsMA.

Nominate a Colleague for an AsMA Award!

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



JOHN ERNSTING AWARD James T. Webb, Ph.D.

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.

James T. Webb, Ph.D., was the winner of the 2011 John Ernsting Award. Dr. Webb represents a unique blend of outstanding scientific accomplishment, academic productivity, operational experience, and service to education and AsMA. He has had a terrific impact as a core member of the former altitude physiology and altitude decompression sickness laboratory at Brooks City-Base, TX, providing the specialty with a wealth of answers to many operational questions that have plagued military and civilian aerospace activities.

He has been instrumental in implementing and growing the Aerospace Physiology Certification Program at AsMA and has worked tirelessly to support and work in our Association as VP of Education and Research, served on the Executive Committee, Council, as chairman of the Aerospace Physiology Certification Board, and on the editorial board of *Aviation, Space, and Environmental Medicine*. In 2010, he received the President's Award for his efforts as Chair of the Editorin-Chief Selection Committee. He is a member of SMA, LSBEB (President 1995-96), Resolutions Committee, Bylaws Committee, Aerospace Human Factors Committee, History and Archives Committee, Awards Committee, Science and Technology Committee, Associate and Fellows Group, and many more.

Dr. Webb has lived the life of an operational aviator in theater with all the rigors, training, and environmental exposures that go hand in hand with his extensive flying experience, which spans a multitude of different aircraft and a grand total of over 4315 hours. He is rated as an ATPL single engine and multi-engine prop and jet pilot, scuba dive master, certified in Aerospace Physiology, and has the USAF Space Badge, Command Pilot and Parachutist.

Jim Webb entered the U. S. Air Force (USAF) in 1965. Following receipt of his pilot wings in 1966, he became an F-4D Aircraft Commander (1100 hours) and terminated active duty in 1970 after a tour in Vietnam, logging 175 combat missions, to pursue graduate degrees from the University of Washington in Seattle. For his efforts in Vietnam, he received the Distinguished Flying Cross and the Air Medal with 8 oak leaf clusters. During graduate work for his Ph.D. in Fisheries (Biochemical Ecology) at the University of Washington

See WEBB, p. 751.

### WEBB, from p. 750.

in Seattle, he flew C-141A heavy transport jets as a pilot and aircraft commander with the 97th MAS, USAF Reserve (ASSOC), at McChord AFB, WA. After completing graduate work and 2800 hours of C-141A flying time, he resumed extended active duty with the USAF in the Department of Biology faculty, USAF Academy, Colorado Springs, CO, in 1979. He taught biology, aerospace physiology, and comparative animal physiology and served as Director of Research. In 1984, he was assigned to the USAF School of Aerospace Medicine (US-AFSAM) at Brooks AFB, TX, as a research physiologist.

At USAFSAM, Dr. Webb worked with crewmembers of Space Shuttle mission 51C in an attempt to quantify fluid shifts during Space Shuttle launch and early phases of adaptation to weightlessness. He served as one of the subjects in a protocol on the USAFSAM human centrifuge during this research project. In 1987, he joined KRUG Life Sciences as a senior research scientist on contract with USAFSAM. For his 1991 article in Aviation, Space, and Environmental Medicine, "Unpredictability of fighter pilot G tolerance using anthropometric and physiologic variables" (ASEM 1991; 62:128-35), he received the 1992 Harold V. Ellingson Literary Award from the Associate Fellows Group of the Aerospace Medical Association (AsMA). His later research on DCS led to receipt of the Sidney D. Leverett, Jr., Environmental Science Award in 1999 for his article in Aviation, Space, and Environmental Medicine, "An abrupt zero-preoxygenation altitude threshold for decompression sickness symptoms" (ASEM 1998; 69:335-40).

One of Dr. Webb's research projects demonstrated increased efficiency of preoxygenation by employing exercise to enhance perfusion and ventilation. This research led to receipt of the Fred A. Hitchcock Award for Excellence in Aerospace Physiology from the Aerospace Physiology Society (AsPS) in 1996. The exercise during prebreathe technique was incorporated with NASA findings to enhance denitrogenation prior to the extravehicular activity beginning in 2001. He received the Silver Snoopy award from the NASA astronauts in 2002 for this work. In 2003, he received the Paul Bert Award for Physiologic Research from AsPS and the Professional Excellence Award from the Life Science and Biomedical Engineering Branch (LSBEB) in 2004.

After retirement from the USAF, Dr. Webb continued aerospace physiology research as a scientist with Wyle Laboratories. In 2006, Dr. Webb began employment with Eagle Applied Sciences, LLC, in a curriculum development role aimed at compiling a "Handbook of Aerospace and Operational Physiology" to replace a 1976 Air Force Pamphlet on the same subject. He coordinated the efforts of 28 USAF subject matter experts who contributed to its completion. As part of that effort, he reviewed the decompression sickness research at Brooks AFB from 1960-2010, published in May 2011 as a supplement to *Aviation, Space, and Environmental*  *Medicine*. Throughout his 26 years of altitude and acceleration physiology research at Brooks, he published 20 first-author, peer-reviewed research papers in ASEM and co-authored 15 more.

He is also a member of the International Association of Aviation and Space Medicine, Sigma Xi (The Scientific Research Society), and a life member of the Order of Daedalians (The National Fraternity of Military Pilots). He is board certified in Aerospace Physiology by the AsMA and holds an Airline Transport Pilot certificate from the FAA. Currently retired in San Antonio, TX, he continues efforts to investigate DCS risk and consult with the USAF via his consulting firm, Scientific Aerospace Research Consulting (SARC), LLC.



KENT K. GILLINGHAM AWARD Malcolm Cohen, 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.

Malcolm Cohen, Ph.D., was the 2011 recipient of the Kent K. Gillingham Award for his significant contributions over 40 years in the fields of spatial disorientation (SD) and human perception related to flight. As a researcher and author, he has made a worldwide impact on the current understanding of SD and its effect on human performance. He has contributed more than 100 papers and publications to the general areas of human spatial orientation, perception, performance, and aerospace human factors. His research, involving laboratory studies, the use of human centrifuges, and aircraft in parabolic flight, has elucidated underlying mechanisms and has enhanced our understanding of human perception, behavior, and adaptation to the aerospace environment.

Dr. Cohen was educated at Brandeis University and the University of Pennsylvania, where he received his Ph.D. in Experimental Psychology in 1965. He worked as a Research Psychologist at the Naval Air Material Center and the Naval Air Engineering Center in Philadelphia, as well as at the Naval Air Development Center in Warminster, PA, where he served as a Supervisory Research Psychologist until 1982, when he transferred to NASA-Ames Research Center at Moffett Field, CA. He served as the Assistant Chief of the Biomedical Research Division, the Chief of the Neurosciences Branch, the Chief of the Human Information Processing Research Branch, and as a Principal Investigator and Research Scientist until 2005, when he retired from NASA. He has been an adjunct faculty member at several Universities, including

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# COHEN, from p. 751.

Drexel University, the State University of New York College of Optometry, the Naval Postgraduate School, and the University of North Carolina. He also was a lecturer in the Department of Aeronautics and Astronautics and a Consulting Professor in the Human Biology Program at Stanford University for several years. Currently, Dr. Cohen is a member of the NASA-Ames Human Research Institutional Review Board, the NASA Human Research Program Sensorimotor Risk Standing Review Panel, and the External Advisory Council of the National Space Biological Research Institute. He is the principal consultant and sole proprietor of Malcolm M. Cohen, Ph.D., and Associates, which provides research, consultation, and advice in the area of aerospace human factors.

Dr. Cohen's contributions to NASA have been recognized by numerous awards, including the NASA Medal for Exceptional Scientific Achievement and three Group Achievement Awards: one for his work on the Lunar and Mars Exploration Initiative Team, one for his work on the Neurolab Spacelab Mission Science Team, and one for his contributions to the NASA Astrobiology Team. He is a Fellow of the Aerospace Medical Association and the recipient of both the Sidney D. Leverett, Jr., Environmental Science Award and the Raymond F. Longacre Award. He is also a Fellow and Past-President of the Aerospace Human Factors Association and the recipient of its Henry L. Taylor Founder's Award. In addition, Cohen is an Associate Fellow of the American Institute of Aeronautics and Astronautics, having received both an AIAA Leadership and Service Award and the Jeffries Aerospace Medicine and Life Sciences Research Award. His other professional affiliations have included membership in the American Association for the Advancement of Science, the New York Academy of Sciences, the Psychonomic Society, and the Society of the Sigma Xi.



# WON CHUEL KAY AWARD Jarnail Singh, M.D.

Established 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. The award was established and is sponsored by the Korean Aerospace Medical Association.

Jarnail Singh, M.D., was the 2011 winner of the Won Chuel Kay Award for his pivotal role in bringing together the international, regional, and national aviation and public health sectors to put in place pandemic preparedness plans for the aviation community. He has spearheaded, facilitated, and coordinated the International Civil Aviation Organization's (ICAO) Cooperative Arrangement for the Prevention of the Spread of Communicable disease through Air travel (CAPSCA) project to Africa, the Americas, and the Middle East, transforming it into a global project. He has also contributed to the training of doctors in aviation medicine and pandemic preparedness in Sri Lanka, India, Bangladesh, Nepal, South Africa, Rwanda, Nigeria, Gabon, Senegal, Kenya, Lima, Argentina, Mongolia, the Philippines, Indonesia, and Thailand.

Dr. Singh is the Chairman of the Civil Aviation Medical Board, Civil Aviation Authority of Singapore (CAAS). He chairs ICAO's Medical Provisions Study Group, which reviews the existing medical requirements in Annex 1 in the light of medical advances and availability of epidemiological data to facilitate global harmonization of medical standards for pilots and air traffic controllers. In the area of pandemic preparedness planning, Dr. Singh is the Technical Advisor to the CAPSCA global project encompassing the Asia-Pacific, Africa, Americas, Middle East, and European regions. He is also on the WHO IHR Roster of Experts and has been Temporary Advisor to the WHO Western Pacific Regional Office for the WHO-ASEAN meeting on public health measures at international points of entry. He was also appointed Temporary Advisor to the WHO South East Asia Regional Office for a regional meeting on International Health Regulations Core Capacities at Points of Entry, held in Colombo, Sri Lanka, in July 2010.

Dr. Singh chaired the CAAS Ultra Long Range (ULR) Task Force, which enabled the world's first non-stop ULR flights from Singapore to Los Angeles and New York, and is currently the Chairman of the Flight Time Limitations Committee in CAAS. He is a member of ICAO's Fatigue Risk Management Task Force, which is developing Fatigue Risk Management Systems for Operators and Regulators within the Safety Management System (SMS).

Dr. Singh holds an M.B., B.S., a post graduate Diploma in Aviation Medicine, and an M.Sc. in Occupational Medicine. He is a Fellow of the Academy of Medicine, Singapore, and an Academician of the International Academy of Aviation and Space Medicine (IAASM). He has served as a Director of IAASM and is also a gazetted Inspector of Accidents in Singapore. Within AsMA, he is a Fellow, has served on Council, and on the Air Transport, International Activities, and Executive Committees, and is Vice President of International Services.



JOE KERWIN AWARD John Charles, Ph.D.

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.

John Charles, Ph.D., was awarded the 2011 Joe Kerwin Award for his prolific contributions to the Space Life *See CHARLES*, p. 753.

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Sciences body of knowledge over many years. He has been a leader in human spaceflight programmatic activities at NASA in multiple leadership roles, most recently as the program scientist for the human research program. He has also contributed his time and talent to various committee posts in Aerospace Medicine. His career has been a remarkable endeavor that brought him to NASA in the mid-1980s and has afforded him the opportunity to serve as the cardiovascular discipline head for the extended duration orbiter medical project, the cardiovascular discipline lead for the Shuttle-Mir science project, the technical lead for the cardiopulmonary group, the project scientist for human life sciences for the NASA-Mir program, Mission scientist for the NASA-Mir program, and numerous other leadership roles.

Dr. Charles is the Program Scientist for the Human Research Program at NASA's Johnson Space Center near Houston, TX. He earned his Bachelor's degree in Biophysics at the Ohio State University and his doctorate in Physiology and Biophysics at the University of Kentucky. He came to Houston in 1983 as a National Research Council postdoctoral fellow and joined NASA in 1985. He was principal investigator on cardiovascular experiments on Space Shuttle flights and on the Russian space station Mir. He directed the NASA life sciences research for American astronauts' missions to the Mir, for the second spaceflight of John Glenn in 1998, and for the multi-disciplinary mission on Columbia in 2003. He led the Bioastronautics Roadmap project for human risk reduction for space exploration missions through focused research and technology. He was the space life sciences representative in NASA's lunar and Mars exploration planning.

Dr. Charles chaired the local organizing committee for the 18th Humans in Space Symposium of the International Academy of Astronautics and has published over 60 scientific articles. He has received NASA's Exceptional Service Medal, the "Silver Snoopy" astronaut recognition award, and both the Young Investigator of the Year award and the Hubertus Strughold Award from the Space Medicine Branch of the Aerospace Medical Association (AsMA). He is a Fellow of AsMA.



# MARY T. KLINKER AWARD Nora Taylor, B.S.N.

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

Nora Taylor, B.S.N., was the winner of the 2011 Mary T. Klinker Award for her focus on flight clinical coordination and training. Prior to her retirement from the Air Force reserves she was the Functional Trainer for the Joint Patient Movement Team of the Joint Transportation Reserve Unit—training aeromedical concepts and physiology to the United States Transportation Command Surgeon's staff from Army, Navy, Air Force, and even the Coast Guard. She demonstrated an impressive training ability and unfailing dedication to the promotion of patient care when she managed the integration of new training programs for patient validation. She has effectively combined her civilian experience and her focus on managing change to tackle the daunting task of reorganization and has trained many nurses both in the civilian and the military, always with the aim of improving performance and facilitating change.

Since she joined the Aerospace Medical Association (AsMA), Taylor has remained a driving force for the promotion of flight nursing, actively promoting the integration of new members to the ranks of AsMA and the Aerospace Nursing Society (ANS). She has served on AsMA's Membership, Awards, and Registration Committees.

Born in Condon, OR, Taylor graduated from Ben Eielson High School on Eielson Air Force Base, AK, and received her Bachelor of Science in Nursing from California State University, Hayward, CA. Taylor was commissioned on April 6, 1986, and proceeded to do an internship at Luke AFB, AZ. Her first permanent assignment was Holloman AFB, NM, where she worked on the multi-service medical/surgical unit of the 35-bed hospital. From there, then she was deployed with the 833d Air Division Hospital to Taif, Saudi Arabia, from August 1990 to March 1991 for Desert Shield/Storm. She returned to the United States and began flying missions at Scott AFB, IL, with the 57th Aeromedical Evacuation Squadron.

In 1993, Taylor transitioned to the Air Force Reserve in the 73rd Aeromedical Evacuation Squadron. In 2001 she moved into the joint environment at the 954th Reserve Support Squadron within the U.S. Transportation Command. She was deployed as the Deputy Director, Joint Patient Movement Requirements Center—CENT-COM from January to June 2003.

Taylor is currently the Business Change Manager for WellPoint's Behavioral Health Central Operations Unit where she has been since February 2007. Since 1995 she has been working in St. Louis in the insurance industry. Her civilian positions within Blue Cross Blue Shield of Missouri and its parent companies have been many. She has worked in medical management certification, training, and case management.

Taylor has long been a member of the Reserve Officer's Association, Veterans of Foreign Wars, and the AsMA, where she is involved in the Registration, Membership, Scientific Program, and Corporate and Sustaining Committees. She also serves on the AsMA Council and is an Associate Fellow.

# Erratum

In the June issue of *Aviation, Space, and Environmental Medicine,* on p. 667, we listed Ms. Nora Taylor as the incoming President of the Aerospace Nursing Society. Due to an administrative technicality (lack of quorum), Ms. Taylor could not be confirmed as President of ANS and, therefore, Lt. Col. Carolyn Jarrett, USAF, NC, will continue in her role as President for a second year. Ms. Jarrett's biography was printed in ASEM 2010; 81:617.



SIDNEY D. LEVERETT, JR. ENVIRONMENTAL SCIENCE AWARD David J. Tanzer, M.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 Aviation, Space, and Environmental Medicine, or by activities conducted in support of aerospace systems operation. Sponsored by Environmental Tectonics Corporation.

CAPT David J. Tanzer, MC, FS, USN, was the 2011 recipient of the Sidney D. Leverett, Jr., Environmental Science Award for his contributions in the field of ophthalmology and refractive surgery which has resulted in approval of modern laser vision correction for Department of Defense warfighters and naval aviators. Under his direction, refractive surgery has been proven safe and effective for all aspects of military service and has resulted in millions of dollars in cost savings, in terms of improved military readiness and rapid return to duty following refractive surgery. Because he has devoted the past 17 years of his 21-year Naval career to understanding the unique issues of refractive surgery in a military population, including corneal physiology and response to surgery under adverse environmental conditions, the safety, efficacy, quality of vision, and visual performance following intraocular and laser vision refractive surgery and the operational impact of these techniques has been established.

CAPT Tanzer is the former Surgical Director for the Navy Refractive Surgery Center, Department of Ophthalmology, Naval Medical Center San Diego, and Specialty Leader for Navy Refractive Surgery. He is a graduate of the University of California, Santa Barbara, with two undergraduate Bachelors degrees, and of Georgetown Medical School, which he attended on a 4year Navy Health Professions Scholarship. He completed his internship and ophthalmology residency at the Naval Medical Center, San Diego, and received fellowship training in Cornea, External Disease, and Refractive Surgery at the Doheny Eye Institute, University of Southern California. He holds faculty positions as associate professor of ophthalmology at Loma Linda University, assistant professor of ophthalmology at the Shiley Eye Center, University of California, San Diego, and is assistant professor of surgery at the Uniformed Services University in Bethesda, MD.

Dr. Tanzer has authored or co-authored numerous peer-reviewed articles and book chapters on various topics in ophthalmology and is a medical reviewer for several ophthalmology journals. He is currently involved in several protocols evaluating the latest techniques in refractive surgery, including wavefront-guided PRK versus LASIK, microkeratome and excimer laser comparison trials, and toric phakic intraocular lenses as well as assessing the operational effectiveness of refractive surgery in various military occupations, including Naval aviators. He is also a Naval Flight Surgeon and former Deputy Wing Surgeon, Third Marine Aircraft Wing, Marine Corps Air Station, Miramar, CA. He has logged more than 500 flight hours in 17 different types of military aircraft, including 300 hours in the F/A-18 Hornet, as well as 12 combat sorties and 78 carrier arrested landings.



ERIC LILJENCRANTZ AWARD K. Jeffrey Myers, M.D.

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

K. Jeffrey Myers, M.D., was the 2011 winner of the Eric Liljencrantz Award for his contributions to the Kennedy Space Center Space Shuttle Launch and Landing Emergency Medical Support Training Course and the emergency medical services plan, which he coauthored. He participated in teaching the Kennedy Space Center Space Shuttle Launch and Landing Emergency Medical Support Training Course for over 20 years from its inception. He has provided the foundation for the education of medical and non-medical disciplines supporting the Space Shuttle program and is an enthusiastic educator and promoter of aerospace medicine.

Dr. Myers grew up in rural Indiana where his childhood hobbies were astronomy and model rocketry. On his 12th birthday he experienced his first airplane flight; during this flight the instructor permitted him to take the flight controls, sparking a lifelong interest in aerospace. He graduated as valedictorian from Pike Central High school (Petersburg, IN) and Summa Cum Laude with a B.S. in Chemistry from the University of Evansville (Evansville, IN) in 1977. He graduated with highest distinction from Indiana University School of Medicine in 1981 with an M.D.

While training in the surgical residency program at the Mayo Clinic, Dr. Myers was interviewed as a potential astronaut candidate and subsequently transferred to the Aerospace Medicine Residency at Wright State University. He worked as an Aerospace Medicine physician on the Life Sciences Support contract and later as an occupational medicine physician, toxicology consultant, and FAA medical examiner at the Kennedy Space Center. During this time he became board certified in Aerospace Medicine, Emergency Medicine, Occupational Medicine, and Medical Toxicology. He coauthored the first Emergency Medical Services Plan (for Space Shuttle contingencies) and developed and implemented the Space Shuttle Emergency Medical Launch and Landing Support training course at KSC for area hospitals and trauma support physicians. He received the NASA Silver Snoopy Award, NASA Group Achievement Awards for Gambia Africa TAL site

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### MYERS, from p. 754.

support and Hurricane Katrina Medical support, and the NASA Stennis Space Center Director's Medal. He also served in the USAF during the First Gulf War as a triage officer for the 21st Medical Patient Staging Squadron and as a flight surgeon for the 79th Tactical Fighter Squadron.

At AsMA, Dr. Myers is a Fellow and has served as President of both the Society of NASA Flight Surgeons and the Space Medicine Association (SMA). In 2007, the SMA renamed the Young Investigator Award as the Jeff Myers Young Investigator Award; he has served as the Chair for this Award competition for 19 years. He was AsMA Scientific Program Chair in 2006, Membership Committee co-chair for 4 years, and served a term as Vice President of International Activities and a term on AsMA Council. He has also served on the Aerospace Human Factors and Air Transport Medicine Committees, as well as being a member of the Life Sciences & Bioengineering Branch. He is currently serving on the Long-Range Planning Committee.

Dr. Myers is currently is working at the VA Medical Center in Gainesville, FL, and as a faculty member of the University of Florida Department of Emergency Medicine at nearby Shands Teaching Hospital. He was recently appointed to a 2-year term to serve on the Congressionally Directed Medical Research Program's Gulf War Illness Research Integration Panel.

His awards include the Air Force Commendation Medal, National Defense Medal; President's Specialty Award from the Society of NASA Flight Surgeons; and an Exceptional Service Award from the SMA. Also, he was named Top Reviewer for the *Annals of Emergency Medicine*.



# RAYMOND F. LONGACRE AWARD Scott A. Shappell, Ph.D.

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.

Scott A. Shappell, Ph.D., was honored with the 2011 Raymond F. Longacre Award. He was recognized as an educator and leader who has made significant contributions to our understanding of aviation human factors. Although he has conducted significant work in a variety of fields including fatigue and human error, he is best known as the co-developer of the Human Factors Analysis and Classification System (HFACS). HFACS provides a systematic approach to the identification and reduction of human causal factors. Originally developed for use within aviation, HFACS has been modified for use in a variety of industries, including patient safety.

Dr. Shappell received a B.S. in Psychology (1983)

from Wright State University, graduating Summa Cum Laude with honors. He followed with a Ph.D. in Neuroscience from the University of Texas Medical Branch in 1990. He then served 12 years on active duty in the U.S. Navy. He has held many safety positions throughout his naval career, most recently as the Human Factors Branch Chief at the U.S. Naval Safety Center (NSC) and as a human factors accident investigation consultant for the Joint Service Safety Chiefs. Prior to the NSC, he served as the Force Aerospace Psychologist for the Commander, Naval Air Forces U.S. Atlantic Fleet.

Dr. Shappell joined Clemson University as a tenured full professor of Industrial Engineering in August of 2005. Before joining the faculty at Clemson, he was the Human Factors Research Branch Manager at the Civil Aerospace Medical Institute (CAMI) of the Federal Aviation Administration (FAA) in Oklahoma City, OK. There he managed research programs on advanced air traffic control systems, behavioral stressors, and aircrew performance. In addition, he continued to conduct studies of both civil and military aviation accidents using the Human Factors Analysis and Classification System (HFACS) co-authored with Dr. Douglas Wiegmann.

In addition to several academic achievements, Dr. Shappell has been recognized worldwide as an expert in the field of aviation human factors and human error by his peers and has been honored with several awards, including the Sonny Carter Memorial Award for excellence in aviation safety awarded by the Society of U.S. Naval Flight Surgeons (1996); the William E. Collins Award for an outstanding publication in the field of human factors awarded by the Aerospace Human Factors Association (2002); the Admiral Louis de Florez Award for significant contribution to aviation safety and accident prevention awarded by the Flight Safety Foundation, International (2002); the Harry G. Moseley Award for significant contributions to human factors and aerospace safety awarded by the Aerospace Medical Association (2003); and the Henry L. Taylor Award for outstanding contributions in the field of aviation human factors presented by the Aerospace Human Factors Association (2010).

Dr. Shappell is currently a Fellow of the Aerospace Medical Association; Fellow and Past President of the Aerospace Human Factors Association; Fellow and Past President of the American Psychological Association Division 21 – Applied Experimental and Engineering Psychology; Member of the American Psychological Association Division 19 – Military Psychology; Member and past Secretary/Treasurer of the Human Factors and Ergonomics Society; Member of the Association of Aerospace Psychologists; Member of the International Society of Air Safety Investigators; and a professional Member of the Institute of Industrial Engineers. In addition, he has also served as a consulting/associate editor for the journal Aviation, Space, and Environmental *Medicine* and as a regular peer reviewer for the journals Human Factors; Accident, Analysis, and Prevention; and a variety of other scientific journals. He has published over 60 papers and 1 book. He has also made several keynote and invited addresses in the fields of aviation accident investigation, spatial disorientation, sustained operations, flight deck injuries, and aircrew fatigue.



# THEODORE C. LYSTER AWARD Gary Gray, M.D., Ph.D.

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.

Gary Gray, M.D., Ph.D., was the 2011 recipient of the Theodore C. Lyster Award. He was honored for his 40 years of service to the aerospace community and role as the "godfather" of Canadian Aerospace Medicine. He spearheaded many precedent-setting programs for Canada and, ultimately, the world that challenged the need to permanently ground pilots with conditions including insulin dependent diabetes, SSRI use, and abstinent alcohol dependencies. He has directly taught and mentored an entire generation of military flight surgeons and has been actively involved in all aspects of aerospace medicine in Canada. He also is well known and respected internationally.

Dr. Gray is a McGill graduate in medicine and joined the Royal Canadian Air Force (RCAF) while in medical school. He received his Flight Surgeon's wings from the Canadian Forces in 1970 and spent several years as an operational flight surgeon in Edmonton and Moose Jaw before being posted to the CF Institute of Environmental Medicine in Toronto, where he has been involved in aerospace medicine and research over the past 38 years (with sequential Institute name changes to the present DRDC Toronto). He completed a Ph.D. in altitude physiology through the University of Toronto and has continued to be involved in aviation medicine research with over 40 scientific publications, including several book chapters on aviation and space medicine topics.

Dr. Gray obtained Royal College Fellowship qualification in Internal Medicine in 1978 and his prime interest continues to be the practice of aerospace medicine. In 1983, he directed the medical screening of the first six Canadian astronauts and he has continued to be closely involved in medical support for the Canadian astronaut program, including the 1992 astronaut selection and the 2009 CSA astronaut recruitment. His current position is Consultant in Medicine at DRDC Toronto and Senior Consultant Flight Surgeon for the Canadian Space Agency. As the previous Chair and current member of the ISS Medical Standards Working Group, he has been deeply involved in the development of medical screening and standards for the International Space Station, and represents the CSA on the ISS Multilateral Space Medicine Board, which medically certifies all astronauts going to the ISS.

Dr. Gray is a member of the International Academy of Aerospace Medicine. Within the Aerospace Medical Association (AsMA), he is a Fellow of AsMA and involved in the Awards and International Activities Committees. He is active as a consultant with Transport Canada in support of civil aviation medical standards and is also a consultant for a Canadian airline pilot union.



MARIE MARVINGT AWARD Erich Rödig, Dr.med.

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.

Erich Rödig, Brig. Gen.(Ret.), GAF, Dr. med., was the 2011 recipient of the Marie Marvingt Award. He was recognized for a lifetime of outstanding achievements in Aerospace Medicine. His efforts have not only demonstrated excellence and innovation in aerospace medicine, but have inculcated those goals in myriads of others within the NATO aeromedical community. He has been a leader in the development of aeromedical doctrine within NATO, and has developed and led the NATO Flight Surgeon's Course, which, annually taught, has trained literally hundreds of flight surgeons from all NATO countries.

Dr. Rödig retired as the Surgeon General of the German Air Force in July 2008. In this capacity he advised the Chief of Staff, German Air Force, and the Chiefs of Staff of the Army and Navy, as well as the Surgeon General of the Bundeswehr, in all aspects of aviation medicine and its associated disciplines and on matters pertaining to the medical aspects of Air Force, Army, and Navy aircrew personnel. He had command authority over the German Air Force Institute of Aviation Medicine, thereby developing programs and policies for clinical aeromedical examination and decision making, steering the education of the German flight surgeons and aeromedical assistants, having the supervision of aeromedical research and exercising direction, guidance, and technical management for the aeromedical community in the German Armed Forces.

Dr. Rödig was born in Bayreuth, Bavaria, in 1946 and graduated from high school in Lichtenfels, Bavaria. He served as reserve medical officer candidate and—as medical officer candidate of the Bundeswehr—started to study medical sciences at the Free University of Berlin. Following his graduation from the Technical University Munich in 1974, and subsequent internship at the Bundeswehr Hospital in Munich, he continued his studies to become a specialist in internal medicine with a focus on intensive care medicine.

From 1977 to 1984 Dr. Rödig worked at the Bundeswehr Hospital Amberg and in civilian hospitals. He entered duty as an active flight surgeon of the Tactical Reconnaissance Wing 52 (RF-4E), where he served until 1986. Subsequently he was assigned chief

# RÖDIG, from p. 756.

of the specialist group for internal medicine at the German Air Force Institute of Aviation Medicine. In 1988, he took part in a 6-month advanced training course in aerospace medicine at the USAF School of Aerospace Medicine in San Antonio, TX. In 1989, he participated in a course for future GAF commanders at the German Air Force Officer School at Fürstenfeldbruck. Prior to assuming his current position, he was promoted to Colonel and became chief of Division II at the Office of the Surgeon General German Air Force, where he was responsible for all aspects of aviation medicine in the Bundeswehr.

In 2001 he was promoted Brigadier General and became Director of the German Air Force Institute of Aviation Medicine at Fürstenfeldbruck. In 2002 he was appointed the 12th Surgeon General German Air Force. He retired in July 2008. Since then he has been an appointed German Member of the NATO RTO Human Factors and Medicine Panel. He is a Fellow of the Aerospace Medical Association (AsMA), and a member of the Society of U.S. Air Force Flight Surgeons, the "Internationalis Astronautica Academia," and the German Society for Internal Medicine. He is also an Honorary Member of the Hungarian Society of Aerospace Medicine and the Slovenian Society of Aerospace Medicine and a Life Member of the Society of U.S. Naval Flight Surgeons. Additionally, he is an Academician of the International Academy of Aviation and Space Medicine, a Rapporteur and Expert in Aeromedical Evacuation for NATO CAPC, and a Panel Member of the NATO RTO Human Factors and Medicine Panel. His awards include the German Air Force Chief Flight Surgeon Badge, grade III (gold), the Cross of the Order of Merit of the Federal Republic of Germany, the Cross of Honor of the German Armed Forces, the Aviation Badge of Chief Flight Surgeon USAF, and the Von Kármán Medal of NATO RTO in 2007.



# HARRY G. MOSELEY AWARD R. Andrew McKinley, 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 Lockheed-Martin Corporation.

R. Andrew McKinley, Ph.D., was honored with the 2011 Harry G. Moseley Award for his outstanding contribution to flight safety, specifically the reduction of mishaps due to rotary wing brownout. He led the Air Force Crew Interface team of scientists and engineers who helped develop a research simulator at Wright-Patterson AFB and intuitive brownout display symbology to help pilots land in degraded visual environments, and evaluated an emerging laser radar sensor system that can "see through" the brownout cloud. This significant human factors research will help reduce landing mishaps, save lives, and improve flight safety.

McKinley received his B.S. in Biomedical Engineering and his Ph.D. in Engineering from Wright State Universtiy, Dayton, OH. He attended an intensive course in transcranial magnetic stimulation at Harvard Medical School, Cambridge, MA, in March 2011.

Dr. McKinley is currently a biomedical engineer at the Air Force Research Laboratory's (AFRL) Vulnerability Analysis Branch located at Wright-Patterson AFB, OH. Over the past 10 years, he has conducted a diverse and unique range of experiments. Beginning in 2001, he conducted sustained acceleration research with a focus on pilot cognitive performance in the high-G environment. His computational modeling work led to a validated comprehensive model of pilot cognitive function based on cardiovascular and neural physiology under high Gz stress. He also performed multisensory integration research to provide tactile and audio cues to prevent spatial disorientation and assist remotely piloted aircraft operators during landing. Later, his work shifted to investigating alternatives to using manned aircraft pilots as remotely piloted aircraft operators.

Dr. McKinley's more recent work has centered on developing technologies to reduce mishaps resulting from rotary-wing brownout. As the Human Effectiveness Team Lead of the Air Force Research Laboratory's Rotary-wing Brownout countermeasures program, he and his team have been evaluating candidate technological solutions, including state-of-the-art symbology and sensors. He evaluated a new active laser-radar (LADAR) based system capable of producing a high-resolution image of the landing site both prior to and during the brownout event. By restoring the pilots' ability to see small obstacles and obstructions, this system substantially reduces brownout landing mishap risks and restores mission capability by allowing pilots to land even closer to their objective. His research provided evidence of improved landing performance, lower subjective workload, higher handling qualities ratings, and lower perceived difficulty with the 3D-LZ LADAR system when compared to the baseline configuration (FLIR with symbology overlay).

An author or co-author on over 40 articles and presentations, Dr. McKinley has received the Alfred Gessow Forum Best Paper Award for 2010, the Grover E. Bell Award from the American Helicopter Society in 2010, the SAFE National Individual Achievement and the WBC Outstanding Engineer Awards both in 2009, as well as many special achievement and distinguished service awards.

He is a member of the Aerospace Medical Association, Aerospace Human Factors Association (Membership Chair), NATO RTO Task Group (HFM-162) – Rotarywing Brownout Countermeasures, SAFE Association, Wright Brothers Chapter (President, 2009-2010), Life Sciences and Biomedical Engineering Branch (Secretary/Treasurer), Collaborative Technologies Symposium (Organizer/Membership chair 2007-2011), and Order of the Engineer.

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JOHN PAUL STAPP AWARD Joseph A. Pellettiere, Ph.D.

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.

Joseph A. Pellettiere, Ph.D., was the 2011 recipient of the John Paul Stapp Award. He was recognized for his outstanding contributions to the field of aerospace biomechanics and his promotion of protection from injury resulting from ejection and impact. At the Air Force Research Laboratory he has led critical research efforts in neck injury, physical fatigue prevention, and head acceleration monitoring which have significantly improved the safety of airmen. His research has been incorporated into many aerospace safety programs and has led to product development to protect those from injury during dynamic events.

Dr. Pellettiere earned a B.S. in Biomedical Engineering in 1992 and then an M.S. in Mechanical Engineering in 1993 at Case Western Reserve University. In 1999, he graduated from the University of Virginia with a Ph.D. in Mechanical Engineering. From 1992-1998, he served as a Biomedical Engineer at Armstrong Laboratory at Wright-Patterson AFB, OH. He then became a Mechanical Engineer, a position he held until 2005. In 2003, he became an Adjunct Professor in the Department of Biomedical Engineering at Wright State University, Dayton, OH. He graduated from the Air War College, Air University, in 2008. Until 2009, he served as Professional Staff at the House of Representatives Committee on Science and Technology in Washington, DC, and was a Commerce and Science Technology Fellow. During the same time, from 2006 until 2010, he was Senior Mechanical Engineer, Technical Advisor in the Biomechanics Branch, Human Effectiveness Directorate at Wright-Patterson. In 2010, he became Chief Scientific and Technical Advisor in Crash Dynamics at FAA Aviation Safety in Washington, DC.

Dr. Pellettiere is Wright Brothers Chapter President of the SAFE Association and a member of the Articulated Total Body User's Group, the Society of Automotive Engineers, the American Helicopter Society, and the Aerospace Medical Association (AsMA). His awards include a SAFE Association Team Achievement award, the A. Howard Hasbrook Award from the Life Sciences Biomedical Engineering Branch of AsMA, several Scientific Achievement Awards, Special Service Awards, and an Excellence in Oral Presentation award from the Society of Automotive Engineers. He has written or coauthored over 80 publications.

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JOHN A. TAMISIEA AWARD David Salisbury, M.D.

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

David Salisbury, M.D., Col.(Ret.), CF, was the winner of the 2011 John A. Tamisiea Award for his career spanning over 30 years in support of the "art and science" of aerospace medicine. His combination of practical knowledge, hands-on experience, and a love of the arts results in always memorable lectures and focus topic areas in general aviation.

Dr. Salisbury assumed the role of Director of Medicine, Civil Aviation, Transport Canada, in May 2008 where he oversees the medical certification of all pilots, air traffic controllers, and flight engineers in Canada. In his present position, he has overseen many significant updates to general aviation and his research has often impacted aerospace medicine as it is applied in both military and civilian venues throughout Canada. He is best known for his thoughtful analysis into the "art" of aerospace.

He was born and raised in Ottawa. He joined the Canadian Forces in 1975 under the auspices of the Medical Officer Training program and graduated from Queen's University Medical School in 1978. After an internship at McMaster University, he was posted as the Base Medical Officer at CFB Portage la Prairie. In 1982 he was selected for the flight surgeon-pilot program. He received his CF pilot wings in 1983 and stayed on at CFB Moose Jaw as the Base Surgeon, where he was the pilot/physician in charge of the CF Motion Sickness treatment program and he was the flight surgeon for the Snowbirds. In 1986 he was selected for post-graduate training in aerospace medicine. He obtained his Master's in Occupational Health from UBC in 1987. In 1988 he attended the USAF Residency in Aerospace Medicine at USAF School of Aerospace Medicine, Brooks AFB, San Antonio, TX, and earned his USAF Senior Flight Surgeon Wings. He is Board certified in Aerospace Medicine by the American Board of Preventive Medicine and has his Royal College Fellowship in Public Health and Preventive Medicine.

During his time in the military, Dr. Salisbury spent time in Manitoba, Saskatchewan, British Columbia, Texas, Croatia, and Ontario. His last position was as head of public health for the Canadian Forces at National Defence HQ in Ottawa. In 2003 he was "lent" to Toronto Public Health to assist them in the management of the SARS outbreak. On retirement from the military in 2004, he joined Ottawa Public Health as an Associate Medical Officer of Health and Manager of the Infectious Disease Prevention and Control Division. He was appointed Medical Officer of Health for the City of Ottawa in December 2005.

# SALISBURY, from p. 758.

Dr. Salisbury has published numerous papers in occupational, aerospace, and community medicine. His research interests concern aircrew selection and the use of computerized databases in the study of occupational epidemiology. He spent a 4-year term as the executive secretary of the clinical reasoning skills test committee of the Medical Council of Canada. He is a past president of the Canadian Aerospace Medicine and Aeromedical Transport Association (CAMATA), a past president of the International Association of Military Flight Surgeon Pilots, and he has been honored as a Fellow of the Aerospace Medical Association, where he has served on the History and Archives Committee.



ARNOLD D. TUTTLE AWARD Bhupinder Singh, M.D., Dip.Av.Med.

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.

Bhupinder Singh, M.B.B.S., Dip.Av.Med., M.D., received the 2011 Arnold D. Tuttle Award for his role as lead author of "Hypoxia Awareness Training for Aircrew: A Comparison of Two Techniques" (Aviat Space Environ Med 2010; 81:857-863). His co-authors were G. G. Cable, G. V. Hampson, G. D. Pascoe, M. Corbett, and A. Smith. The article investigated the subjective, physiological, and performance effects of two methods of hypoxia awareness training—the traditional hypobaric hypoxia at 25,000 ft in a hypobaric chamber (HH) and combined altitude and depleted oxygen (CADO).

Dr. Singh qualified in medicine from the Punjab University in 1969 and joined the Indian Air Force (IAF), in which he served at various operational and training establishments for 22 years. His tour of duty included serving as the head of the Department of Human Engineering at IAF IAM, commanding officer of an Aeromedical Training Centre, and a 3-year deputation to Air India as an Aeromedical Specialist, apart from serving at a number of operational IAF bases. Early in his military career, he underwent training as a fighter pilot, earning his wings in 1972, and went on to fly a variety of aircraft types. He completed a Doctorate in Aerospace Medicine from the Indian Air Force Institute of Aerospace Medicine, Bangalore, India, in 1983.

After retiring from the IAF with the rank of Wing Commander, Dr. Singh worked with the Directorate General of Civil Aviation and Meteorology of the Sultanate Oman to set up an emergency medical clinic at the Seeb International Airport and served as the head of that clinic for 2 years (1996–1998). He has been a senior aviation medical examiner for the civil aviation authorities of India, Oman, Australia, and the United States. In 1998, he was hired by the Royal Australian Air Force Institute of Aerospace Medicine (RAAF IAM) as an aeromedical researcher and was elevated to head the research department in 2001, where he has been working ever since.

Dr. Singh has been a regular presenter of scientific papers at the annual meetings of the Aerospace Medical Association (AsMA) and has published numerous articles in peer-reviewed journals, including *Aviation*, *Space, and Environmental Medicine*. His research work has been cited in aviation medicine textbooks and in international military standards publications. His published work resulted in the recognition of a new definition of spatial disorientation by the 5-nation Air Standardisation Co-ordinating Committee (ASCC, now re-christened ASIC). He represented the RAAF on the ASCC on many occasions and served as the chair of the ASCC Project Group on Biodynamic Stresses in Normal Flight Operations.

Dr. Singh has been designated Affiliate Associate Professor, School of Population Health and Clinical Practice, Faculty of Health Sciences, University of Adelaide, Adelaide, Australia. He is a fellow of the Royal Aeronautical Society and of the Indian Society of Aerospace Medicine. He is also a member of the Aerospace Medicine. He is also a member of the Aerospace Medicine. He is an Academician of the International Academy of Aviation and Space Medicine. He recently served as a member of the Expert Panel on Aircraft Cabin Air Quality (EPAAQ) constituted by the Civil Aviation Safety Authority (CASA) of Australia to investigate the issue.



JULIAN A. WARD AWARD Kathryn Hughes, M.D., M.P.H., D.Av.Med.

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.

Kathryn Hughes, M.D., M.P.H., D.Av.Med., received the 2011 Julian E. Ward Memorial Award for her outstanding commitment to developing the art and science of aerospace medicine while a resident at the USAF School of Aerospace Medicine at Brooks City-Base, TX. The award is sponsored by the Society of U.S. Air Force Flight Surgeons. A resident with boundless energy and enthusiasm for aerospace medicine (AM), Dr. Hughes distinguished herself in many diverse endeavors, far exceeding all residency requirements. She significantly contributed to the evidence supporting the use of full coverage G-suit technology to mitigate G-LOC mishaps and demonstrated an enthusiastic dedication to AM research on a variety of subjects. Her teaching, writing, analysis and recommendations resulting from multiple

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# HUGHES, from p. 759.

projects positively contributed to flight surgeon and residency training, and were incorporated in policy considerations at Air Force levels.

As 1 of 15 AF Pilot-Physicians, her operational expertise was influential in her many projects during the AM year. Her efforts in acceleration protection had AF-wide impact - she played a key role in an operational assessment comparing two full-coverage (FC) G-suits in the F-15C/F-16, was a consultant for an AF Institute of Technology graduate thesis on FC G-suits, and was member of the 19AF team investigating G-LOC mishaps. She tirelessly dedicated energy to G-LOC mishaps analysis, promoting improved acceleration protection. Her analysis and recommendations were briefed to representatives of Air Force Headquarters and Surgeon General's office, and presented at the International Congress of Aviation & Space Medicine in September 2010. She maintains her centrifuge subject qualification at Brooks, and participated in two equipment trials during the year.

Dr. Hughes completed her research project, "Anthropometrics of Female Fighter Pilots: Impact on Cockpit and Flight Equipment Design." She earned AF funding for an additional research project, in collaboration with the Royal Air Force Centre of Aviation Medicine, to validate the measurement of in-flight metabolic energy expenditure. An invited participant in Top Knife (flight surgeon fighter training), she updated course material and presented a new module on FC technology.

An avid private pilot, Kathryn flew her Bonanza to many rotations and earned her FAA Certified Flight Instructor rating in addition to her many accomplishments of the year. She also revised the flying training curriculum for the AM Primary course, conducting inflight validation of syllabus sorties.

Dr. Hughes graduated from the U.S. Air Force Academy in 1988 with a B.S. in Biology and a Minor in Arabic. She attended Undergraduate Pilot Training at Laughlin AFB and remained as a T-38 Instructor Pilot until 1992. She was stationed next at Offutt AFB, NE, and flew as a T-38 Instructor and Evaluator Pilot, then qualified as an RC-135 pilot flying world-wide reconnaissance missions until 1995. She attended the University of Nebraska Medical Center on a Health Professions Scholarship and earned her flight surgeon's wing at the Aerospace Medicine Primary Course just prior to graduating with her M.D. in 1999. After completing an intern year in General Surgery she was a flight surgeon at Mountain Home AFB for 2 years, then was accepted into the USAF Pilot-Physician Program. She completed A-10 initial qualification at Davis-Monthan AFB, AZ, and served as a Pilot-Physician with the 190th Fighter Squadron, Idaho ANG from 2003-2005. She was the acting Chief of Aerospace Medicine for the 124th Medical Group while serving with the Idaho ANG, and qualified as a 2-ship Flight Lead in the A-10. Dr. Hughes next served as the Senior Medical Officer/Pilot and Hawk Pilot-Physician with the Royal Air Force Centre of Aviation Medical, RAF Henlow, UK, from 2005-2008. There she flew clinical and flight equipment trials, and trained future Typhoon pilots during pre-employment training, including the first two Saudi Typhoon pilots. During her time at RAFCAM she worked in the flight medicine clinic at RAF Lakenheath

and in 2007 became only the third USAF exchange officer to earn the Diploma in Aviation Medicine from Kings College, London.

After acceptance to the Residency in Aerospace Medicine, she completed the Masters in Public Health in 2009, focusing on Health Management and Policy, at the University of Michigan School of Public Health. She completed the Aerospace Medicine Residency in 2010 (RAM-X) at the USAF School of Aerospace Medicine. Lt. Col. Hughes is currently completing the residency in occupational medicine with the USAF School of Aerospace Medicine, Brooks City-Base, TX. After graduation, she will take command of the 95th Aeromedical Squadron, Edward AFB, CA, in July 2011.

She was the 2009 recipient of the Harold G. Moseley Award for her superior dedication to improving safety through rigorous ground and in-flight testing of protective flying equipment and aircrew helmets. Her other awards include the Meritorious Service Medal with oak leaf cluster, the Air Force Commendation Medal with oak leaf cluster, the National Defense Service Medal with bronze star, the Humanitarian Service Medal, the Military Outstanding Volunteer Service Medal, and the NATO Medal.

She is a member of the Royal Aeronautical Society, the International Association of Military Flight Surgeon Pilots, Women Military Aviators, Order of the Daedalians, the 99s: International Organization of Women Pilots, the Experimental Aircraft Association, and the Society of U.S. Air Force Flight Surgeons. She is an active AsMA Associate Fellow and a member of the Aviation Safety and Awards committees.



# News of Members

#### Focus on Members: Lt.Col. (Dr.) Robert R. York, Jr.

Lt.Col. (Dr.) Robert R. York, Jr., is currently the AMDS Commander, 51<sup>st</sup> Medical Group, Osan Airbase, Republic of Korea, where he



leads an Aerospace Medicine squadron, managing the health and fitness for duty of over 5300 active duty and civilian members. He is the Fighter Wing's appointed Public Health Emergency Officer, where he advises the 51 Fighter Wing and 7<sup>th</sup> Air Force Commanders

during all public health or chemical, biological, radiological, and nuclear emergencies. Additionally, he is the Osan Airbase Contingency Hospital Commander.

Lt.Col. York is quadruple medically board certified in Family Practice, Aerospace Medicine, Occupational Medicine, and Certified Physician Executive. He has been a staff physician, Element Chief Aeromedical Services, Deputy Chief of Hospital Services, and chairman of the Occupational Health Working Group at the 49th MDG, Holloman AFB, NM. Additionally, he was assigned to the 8th Fighter Squadron as the Squadron Medical Element, 49th Fighter Wing.

His awards include the USAF Achievement Medal, two Outstanding Unit Awards with Valor, the Iraq Campaign Medal, two Korean Defense Service Medals, the Humanitarian Service Medal, the Air & Space Campaign Ribbon, and the Air Force Expeditionary Service Ribbon with Gold Border.

#### Lt.Col. Lance L. Annicelli, USAF, B.Sc., CAsP,

formerly Flight Commander, Aerospace & Operational Physiology and Director, NVG Academic Instructor Course, Randolph AFB, TX, is now serving as Aerospace Physiologist Exchange Officer, Andrew Equipment Integration Group, RAF Henlow, UK. He is the current President of the Aerospace Physiology Society and Chair of the AsMA Associate Fellows Group.

**LT William F. Baca, MSC, USN,** of Yuma, AZ, has transferred to MAG-13, Yuma, AZ.

**Col. Stephen W. Higgins, USAF**, formerly the Command Surgeon, U.S. Air Forces Central Command, at Shaw AFB, SC, is now serving as Commander, 88th Medical Group, at Wright-Patterson AFB, OH.

Glen D. MacPherson, M.D., M.P.H., has retired as a Major from the Air Force, where he was serving as Chief of Human Factors Studies and Analyses, 711th Human Performance Wing, at Brooks City-Base, TX. He is now Commander, USPHS/USCG, Flight Surgeon Health, Safety & Work-Life Practice, Astoria USCG Sector Columbia River, Astoria, OR. Maj. Gen. (Dr.) Douglas J. Robb has been appointed Joint Staff Surgeon, The Pentagon, Washington, DC. He serves as chief medical advisor to the Chairman of the Joint Chiefs of Staff, providing advice to the Chairman, the Joint Staff, and Combatant Commanders and coordinating all issues related to operational medicine, force health protection, and readiness among the Combatant Commands, the Office of the Secretary of Defense, and the services. Prior to his current assignment, General Robb served as the Command Surgeon, Headquarters Air Mobility Command, Scott Air Force Base, IL.

Nora R. Taylor, who was a Lieutenant Colonel and Senior PMCC at GPMRC-JTRU/USTC, Scott AFB, IL, retired from the Air Force Reserve in 2009 and is now serving as Business Change Manager at Behavioral Health Central Operations, Wellpoint, Inc., St. Louis, MO.

Anthony P. Tvaryanas, formerly a Ph.D. candidate at Naval Postgraduate School in Monterey, CA, has graduated with a Ph.D. in Modeling, Virtual Environments and Simulations (MOVES) with an emphasis in Human Systems Integration. He is now a Technical Advisor at the 711th Human Performance Integration Directorate, Wright-Patterson AFB, OH.

### In Memoriam: Terence Lyons, M.D., M.P.H. (Introduction by Pam Day)

Aerospace Medicine has lost a true friend. Terence J. Lyons, M.D., M.P.H., died in May after a long battle with cancer. The memorial



service will be held at Arlington National Cemetery on September 22, 2011, at 1:00 p.m. His ready smile and positive attitude made him easy to like and work with on so many levels. I first encountered him while editing one of his papers on "Giant Hand

Syndrome" back in 1989 and over the years we continued a friendship that included many encounters at annual meetings, at the Home Office, at the Scientific Program Committee meetings, and even on the bike path in Alexandria, VA, where he and Kyoko would walk. So many of us in AsMA have similar stories to share of how Terry touched our lives—he was someone you didn't forget because he always remembered you.

At the time of his passing, Terry was a Program Manager at the Air Force Office of Scientific Research (AFOSR) in Arlington, VA. He was known for his research on the development of countermeasures for spatial disorientation and G-induced loss of consciousness, seminal papers on women in aviation, and organizing a conference for

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NATO flight surgeons which now takes place every year. Internationally, he organized medical military-to-military exchange visits with Eastern Europe, commanded an 80-man humanitarian mission to Niger, and organized medical support for NASA Space Shuttle Abort Landing sites in Spain and Africa.

Dr. Lyons began his education at Boston College, where he graduated with a B.A. in 1969. He then attended the University of Connecticut in Farmington, earning an M.D. in 1973. He received his M.P.H. from Harvard University in Cambridge, MA, in 1988. He worked in private practice at Ashley Hospital in North Dakota from 1974-1976, then became General Medical Officer at the USAF Hospital at Misawa AFB in Japan. From 1979-1980, he was a family practitioner at the USAF Clinic at Lowry AFB, CO, and was then promoted to Chief of the Family Practice Clinic at Osan AFB in Korea. From 1981-1984, he was Chief of Flight Medicine at the USAF Hospital at RAF Lakenheath in the UK, and then was transferred to the USAF Clinic at Spangdahlem AFB in Germany until 1987. From 1989-1990, he served as Chief of Aerospace Medical Science and Technology, Program Office for Science, Technology, and Operational Aeromedical Support, Human Systems Division, at Brooks AFB, TX. From 1990-1992, he was Deputy Director of the Occupational and Environmental Health Directorate at Armstrong Laboratory at Brooks. He was then transferred to Ramstein AB, Germany, where he was the Chief of Aerospace Medicine at the Headquarters of the U.S. Air Forces Europe until 1995.

From 1995-1997, Dr. Lyons was Commander/Deputy Director at Armstrong Laboratory. From 1997-2001, he served as an Associate Clinical Professor at Wright State University of Medicine. From 1997-2006, he was assigned as Liaison Officer, Asian Office of Aerospace Research and Development (AOARD)/Air Force Office of Scientific Research in Tokyo, Japan. In 2007 he was awarded the Meritorious Civilian Service Award for his leadership of the AOARD. He acquired Space Access/Long Range Strike technology by astutely investing in the world's first successful in-flight scramjet propulsion test.

Dr. Lyons was a Fellow of the American College of Preventive Medicine and the Aerospace Medical Association. He was board certified by the American Board of Preventive Medicine in both Aerospace Medicine and Occupational Medicine. He served as a member of the Advisory Editorial Board of Aviation, Space, and Environmental Medicine and had published over 40 peer-reviewed scientific articles and numerous other presentations and publications. From 1995-1997, he was appointed by the Deputy Assistant Secretary of Defense to be the U.S. National Coordinator for the AGARD (NATO) Aerospace Medicine Panel (AMP). He was Chairman of the NATO Research and Technology Organization (RTO) Working Group #27 on the Human Factors Implications of Superagile Flight.

Dr. Lyons' awards included the Legion of Merit, four Meritorious Service Medals, the 1991 and 1993 Howard R. Unger Literary Awards from the Society of USAF Flight Surgeons, the 1991 Harold B. Ellingson Literary Award for best Associate Fellow article from the Associate Fellows Group of AsMA, the 1990 AsMA Julian E. Ward Memorial Award, Flight Surgeon of the Year from Air Force Systems Command, the Air Force Achievement Medal, the Air Force Commendation Medal, and the Louis H. Bauer Founders Award from AsMA in 2009.

# In Memoriam

[Ed note: The following were not members of AsMA, but were giants in the field of Aviation Medicine.]

# Sir Geoffrey Dhenin

With remarks from Mickey Venn

The Association has learned that Sir Geoffrey Dhenin died in early May. He was one of the original RAF flying doctors. He had a long and distinguished RAF career, starting in 1943 during the World War II and ending following his appointment as Director General of the RAF Medical Services in 1978. He distinguished himself by flying through the atomic bomb test cloud in his Canberra in order to collect radiation samples. It was his idea some 18 years ago that there should be an annual get-together of RAF doctors who had active flying experience in their careers. This gathering has grown to include not only those from the other two Services, but also the Civil area as well. Sir Geoffrey is also well known as the Editor-in-Chief of the textbook "Aviation Medicine Physiology and Human Factors,' along with Sir John Ernsting and G. R. Sharp. This book has been a classic for many years.

Sir Geoffrey was born in 1918, studied at St. John's College, Cambridge, and completed his medical studies at Guy's Hospital, London. He joined the RAF in 1943, serving as a junior medical officer. He was awarded the George Medal for his bravery in giving medical aid and assisting in rescuing a rear gunner injured in the crash of his bomber. He joined a mobile field hospital 2 days after D-Day and was involved in air evacuation of casualties. He trained as a pilot in 1945, becoming one of the few doctors who were Flying Medical Officers.

In 1950, Sir Geoffrey joined the No. 1 Flying College Course and he was appointed to the staff when he graduated. After qualifying as a Senior Specialist in Radiology, he became Deputy Principal Medical Officer (Flying) at HQ Bomber Command in 1953. From 1960-1963, he commanded the RAF Hospital in Cyprus, then returned to Britain to take charge of the hospital at Ely. He was Director of Health Research at the MoD in 1968 and was appointed Honorary Physician to the Queen of England in 1970. In 1971 he became the Principal Medical Officer at RAF Strike Command and was promoted to Air Marshal in 1974. He also served as Director-General of Medical Services RAF for 4 years and was the first pilot to hold that post. He retired from the RAF in 1978 and served as Advisor to the National Guard of the Royal Saudi Air Force. He was appointed KBE in 1975 and was a Fellow of the International Academy of Aerospace Medicine and of the Royal Aeronautical Society.

For more information on Sir Geoffrey, readers can visit the obituary in *The Telegraph* at www.telegraph.co.uk/news/obituaries/ military-obituaries/air-forceobituaries/8508090/Air-Marshal-Sir-Geoffrey-Dhenin.html.

# Air Vice Marshall John N. C. Cooke

With remarks from Peter Chapman

The Association has learned that Air Vice Marshall J. N. C. Cooke died recently. As a clinician he was a lion amidst many pigmies and was one of what is now a dying breed the specialist General Physician. Those working in clinical aviation medicine in UK always used John as a Final Court of Appeal whenever they were out of their clinical depth. His humor and his ability to prick the balloon of presumption and pomposity in others when it was necessary to do so will be missed.

Air Vice Marshall Cooke was born in 1922 and studied medicine at St. Mary's Hospital Medical School in London during the war. He joined the RAF in 1945 and after officer training served at the Mass Miniature Radiology Unit at the Central Medical Establishment. In 1954, he was sent to RAF Hospital Wegberg in Germany as a specialist. He made the news in 1961 when he resuscitated a woman who had nearly drowned. He became an authority on tropical medicine after he was sent to Aden in 1963, where he first gained experience in it. There he invented a technique for rehydrating babies who were dehydrated from diarrhea, thus helping to save many lives. He also assisted in designing reinforcement for the undersides of vehicles to protect the men inside from landmines exploding beneath them.

In 1969, Air Vice Marshall Cooke returned to RAF Hosptial Wegberg, where he served as Physician-in-Charge. He later commanded the medical division at RAF Hospital Halton and was Whittingham Professor of Aviation Medicine from 1974 to 1979. He became Dean of Air Force Medicine when he was promoted to Air Vice Marshall and was Chair of of the Defence Medical Service Postgraduate Council until 1982. He then served as Senior RAF Consultant from 1983 to 1985, when he retired.

Air Vice Marshall Cooke helped establish the Diploma in Aviation Medicine and was one of the first members of a medical advisory panel at the Civil Aviation Authority (CAA) on the cardiovascular fitness of airline pilots. He also served as Consultant Physician to the CAA. He was a member of the medical advisory board of the European Space Agency from 1978-1984, a Consultant Advisor in Medicine to the Royal Air Force of Oman, was appointed OBE in 1956 and CB in 1984, and from 1979-1985, he was the Honorary Physician to the Queen of England.

For more information on Air Vice Marshall Cooke, there is an obituary in *The Telegraph* at www.telegraph.co.uk/news/obituaries/ 8524460/Air-Vice-Marshal-John-Cooke.html.

# **New Members**

Abderahim, Aref K., M.D., Dallas, TX Bhardwaj, Satish, M.D., New Delhi, India Bonett, Ricardo, Dr. Med., Lt., BAF, Bogota, Columbia

Brodhag, Laura, M.D., Cookeville, TN Cantero, Marco A. R., M.D., Vinhedo, Brazil Crowe, Talmadge L., Cdr., USNR, MC, Anchorage, AK

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rwin, Miles A., LIJG, MSC, USN, Oa Harbor, WA

Gemhardt, Michael L., Ph.D., Houston, TX

- Gisin, George J., Jr., Dr., San Antonio, TX
- Graham, Colin A., Prof., M.D., Shatin, Hong Kong

Greydanus, Timothy P., Col., USAF, MC, Pensacola, FL

Lombardi, Rocco A., M.D., Port Perry, ON, Canada

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Ogaswara, Tomoko, M.D., Tsukuba, Ibaraki, Japan

Ormonde, Frank, LCDR, MSC, USN, Kailua, HI

Priot, Anne-Emmanuelle, Maj., M.D., Ph.D., Bretigny sur Orge, France

Rahayfeh, Habashneh R., 1Lt., M.D., Al-Mafraq, Jordan

Reilly, Bruce G., Melbourne, Victoria, Australia Scott, Owen, M.D., Wichita Falls, TX

Schmidt, Regina M., M.D., Fairborn, OH

Sims, John C., CDR, USN, Fallon, NV

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Vondran Lutz, Marcia A., R.N., Mountain Home, ID

Wendler, Carlan, M.D., Los Angeles, CA Zhang, Zuoming, Prof., Xi'an, Shaanxi, China

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