# President's Page

So many windmills, so little time...\*

Sitting in a shoebox, in the top of my closet, is an old nametag, for an even older flight suit. It bears a set of flight surgeon wings and the name "Doc Quixote."

I would wear it from time to time on days when I wanted to remind my staff (and myself) that the world was full of windmills, and rather than mounting our trusty steed and charging full speed at the nearest one, we were better served by focusing our time and energy on those tasks truly worthy of our attention.

I'm just back from our 83rd Annual Scientific Meeting in Atlanta, GA. What a marvelous time it was! I haven't been able to attend all of the annual meetings since I first joined AsMA 28 years ago, but I've made a fair share of them. I am continually amazed at the rich fellowship I've enjoyed by being a member of AsMA – a fellowship that has grown ever richer over the years as I continue to meet new colleagues from around the globe. This year was no exception! Never static, ever dynamic, our association has enriched my life for close to 30 years.

This year's meeting marked a significant milestone for AsMA. For the first time in our Association's history, we had more attendees from outside the United States than from within the U.S. While notable for the dedication of our international members, it also sounds a troubling chord regarding the overall state of our membership. AsMA's percentage of international members has increased over the years; serving as a testament to AsMA's role as the international leader of aerospace medicine. While it is exciting to see an overall growth in members from other countries, it is the decrease in the number of U.S. members that has had the greater impact on the ratio of U.S. to international members.

While in Atlanta I had the opportunity to visit with many of our standing committees. I am continually impressed by the work of all the committees – we have an association full of talented, committed members who generously volunteer their time and energy for the benefit of our specialty. Even so, all of our committees have room for new/additional members. I particularly want to invite your attention to the Membership Committee. Led by JR Heil, the Membership Committee is one that would greatly benefit from addi-



P. Glenn Merchant, Jr., M.D., M.P.H.

tional members who can contribute to the discussion on how best to market our association to prospective members.

Your association's leadership, both volunteer and paid, is working proactively to improve the benefits of membership in AsMA. For physicians, we are working closely with the American Board of Preventive Medicine to create the most efficient, cost-effective Maintenance of Certification program. For nurse members, we will offer Continuing Nursing Education credits at the 2013 Scientific Meeting. For all U.S. members, AsMA is now an IRS 501(c)(3) organization; making it possible for you to deduct a portion of your dues as a charitable donation. (You can expect more information in the near future regarding all the implications of this recent change). Finally, we will launch a new website in the coming months that we think will prove an exciting addition to the benefits of AsMA membership.

As we say in the Navy, we have reached an "all hands on deck" moment. For us to continue to enjoy the rich fellowship AsMA has offered each of us over the years, we ALL need to take an active role in our efforts to recruit new members. This can't be a "y'all" effort, as in, "y'all need to do something to fix membership" (As as I learned in Atlanta, "y'all" seems to mean "everybody except me"). Each of us needs to help recruit the next generation of AsMA members.

We cannot afford to treat our membership challenges as just another windmill to be tilted. Each of us has something to contribute. While you may not know a potential member at the moment, you may well have thoughts on how to better sell the AsMA story. Aerospace Medicine is a unique discipline. Please help us share our story! As always, you can share your questions, thoughts, or criticisms by e-mailing me at pgmerchant@mac.com. I look forward to hearing from you!

<sup>\*</sup>This is best read while the song "The Impossible Dream" (from the musical "Man of La Mancha") plays softly in the background.

# Association News

# ETC Donates Large Gift to AsMA Foundation

Environmental Tectonics Corporation (ETC) of Southampton, PA, a long-standing Corporate and Sustaining Member of AsMA, donated an unrestricted direct gift of \$5,000 to the Aerospace Medical Association Foundation. This large and generous gift will be used by the Foundation to further their educational and scientific charitable activities. The Foundation supports the field of Aerospace Medicine and the Aerospace Medical Association through financial sup-

### **Future AsMA Meetings**

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

MeetingsCalendar

July 1-5, 2012; Flying Physicians Association's 58th Annual Meeting; Denver, CO. Info: www.fpadrs.org/mt\_detail. cfm?pk=95. July 8-11, 2012; 23rd Annual NASA Space Radiation Investigators' Workshop; Washington Duke Inn, Durham, NC. For more info, please visit www.dsls.usra.edu/meetings/radiation2012/index.shtml.

September8-9, 2012; URMPM World Congress 2012; University of London, London, UK. Organized by the Union of Risk Management for Preventive Medicine. Info: http://www.urmpm.org/UWC2012/

October 4-6, 2012; the Civil Aviation Medical Association's

(CAMA) Annual Scientific Meeting; San Diego Marriott La Jolla, La Jolla, CA. The theme for this year's meeting is "Taming the Complex Aeromedical Examination: Flight Physician Preparedness." For more information, please see CAMA's website: www.civilavmed.com/.

October 22-24,2012; 50th Annual SAFE Symposium; Grand Sierra Resort and Casino, Reno, NV. Pleasesee the Call for Paperson the SAFE Symposiumpage; deadlinefor abstract submissionis June 15, 2012. For further information contact: SAFE Association, Post Office Box 130, Creswell, OR 97426; (541) 895-3012; safe@peak.org; www.safeassociation.com.

October 29-November16, 2012; Aviation Leaders Programme in Advanced Management (ALPAM); Singapore. For more information, please vist www.saa.com.sg/ALPAM/alpam.html.

October 31-November3, 2012; The 23rd International Symposium on the Autonomic Nervous System; Paradise Island, Bahamas. For info, contact: Anita Zeller, AAS Executive Secretary, American Autonomic Society, Phone: 952-469-5837, Fax: 952-469-8424; or visit www.americanautonomicsociety.org.

**November9-11,2012**; The 3rd European Conference in Aerospace Medicine: Medicine in the Extreme Environment; Sheraton Skyline Hotel, Heathrow, London, UK. For info: www.esam.aero or www.aame.co.uk.

port of educational and scientific programs, providing scholarships to members in training, supporting grants for research programs that may help the health, safety, and performance of those in the aerospace environment, and develop additional support activities as determined by the Board of Directors. The Foundation particularly aims to help those who are early in their careers. Anyone interested in joining the growing list of Foundation donors can learn more at the Foundation website

(http://www.asma.org/asma\_foundation/fo undation-index.php).

### Barratt Hams it Up

NASA astronaut and AsMA Fellow Michael Barratt, M.D., an amateur radio enthusiast (call sign KD7MIJ) was the featured speaker at the Sea-Pac Northwest Amateur Radio Convention banquet in June. Sea-Pac celebrated its 30th anniversary. The keynote address was entitled "Living in the Ultimate Ham Platform." During his presentation, Barratt discussed his most recent spaceflight mission, living aboard the station and the use of ham radio on the orbiting laboratory. Selected by NASA in July 2000, Barratt is a veteran of two spaceflights. He first served as a flight engineer on Expeditions 19 and 20 to the International Space Station in 2009, living in space for 199 days. Last year, Barratt served as a mission specialist on STS-133. The 13-day mission ended on March 9, 2011, with Discovery's final landing at Kennedy Space Center, FL.



AMDA KIDERAAWARD—The George Kidera Award for 2011 was presented to Dr. Ramon Dominguez-Mompell (left) in Anchorage, and the 2012 award was presented to Dr. Thomas Bettes (right). Dr. Domingues-Mompell was installed as President of AMDA at the annual meeting in Atlanta, GA. Both awardees are pictured here.



### EuropeanSchoolof AviationMedicine

### TrainingCourses2012 for JAA/FAA Aero MedicalExaminers

AME Class 2 Basic Course 22

1 - 9 September 2012

AME Class 1 AdvancedCourse 22

8 – 16 December 2012

Venue:LufthansaAeromedicalCenter, FrankfurtAirport. Application forms and further details under www.flugmed.org

or www.eusam.org.

5. InternationalAero MedicalSeminar(FAA)in Berlin23 - 26 August 2012

Venue:Hotel Palace,Berlin Application form under www.flugmed.org or www.eusam.org

# 2012 Award Winners of the AerospaceMedicalAssociation

Honors Night Ceremonies of the 83rd Annual Scientific Meeting of the Aerospace Medical Association were held May 17, 2012, at the Hilton Hotel in Atlanta, GA. Eighteen awards for outstanding contributions in aviation and space medicine and related fields were presented, including the latest award--the Walter and Sylvia Goldenrath Award for achievement in Aerospace Physiology. The presentations were made by Fanancy Anzalone, M.D., President of the Aerospace Medical Association. The winners were recommended by the Awards Committee, chaired by Dr. Kris Belland, and approved by the Executive Committee of the Aerospace Medical Association.





LOUISH. BAUERFOUNDERS AWARD ClaudeThibeault,M.D.

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.

Claude Thibeault, M.D., Lt.Col.(Ret.), was the recipient of the 2012 Louis H. Bauer Founders Award. He was honored with the award for his more than 40 years of service to the Aviation Medicine Community, serving in both national and international levels of the military, civil aviation, and in the commercial airline industry. Dr. Thibeault has always championed improvements to the medical support of flyers while ensuring the entire aeromedical community continues to move forward as a profession.

Born in Canada, Dr. Thibeault earned a B.A. at Sherbrooke University in 1968, following with an M.D. in 1972. His impressive 40 year career started as a Canadian military flight surgeon. From 1973 to 1975, Dr. Thibeault served as a medical officer at the Canadian Forces Base (CFB) in Chilliwack, B.C., Canada. He attended the Flight Surgeon Course at the Defence and Civil Institute of Environmental Medicine in Toronto in 1975. He then served at the CFB in Bagotville, QC, from 1975-1976. He was a Base Surgeon from 1976-1982 in several different locations, including Baden, Germany, where he became a Command Surgeon.

He was chosen for a residency at the U.S. Air Force School of Aerospace Medicine in Texas from 1978 to 1979. He returned to Canada as the Director, School of Aviation and Operational Medicine in Toronto. There he instigated systemic military changes that remain today to solidify the important relationship between flight surgeons and the aircrew they support.

In 1983, Dr. Thibeault became the Deputy Director at Canadian Civil Aviation Medicine, Health and Welfare, Canada, Ottawa, ON. There, his management skills resulted in a successful transformation from longstanding office inefficiencies to a vastly improved system and service to all civilian flyers. Later in 1983, Claude went on to become the Medical Director at Air Canada, a post he held until 1990. He continued to serve in Air Canada as Senior Director, Occupational Health & Employee Assistance Services, Montreal, QC, until 2004. With significant work, this office was able to gain the credibility and trust of the operators. That achievement paid off in many ways, including the rapid development and efficient management of the "Pilot Health and Rehabilitation Program" that has saved many commercial flying careers and became a template for others to use.

Presently, Dr Thibeault is President of Consultants Aeromed. He works closely with the International Air Transport Association (IATA), the International Civil Aviation Organization (ICAO) and the World Health Organization in medical guidelines creation and updates. He has also run the IATA Aviation Health Conference for the last 11 years.

He is Clinical Associate Professor, Department of Preventive Medicine, University of Texas Medical Branch, Galveston, and Lecturer at the Department of Public Health Services, University of Toronto, Toronto, ON. He has over 150 presentations, many on cabin air quality, to his name and has been author or coauthor on over 50 publications, including "Medical Guidelines for Air Travel," published by AsMA.

Dr. Thibeault has served in a variety of positions, including Chairman of the Centre d'expertise en médicine aéronautique du Québec, member of the Tripartite Committee for the Revision of Aviation Occupational Safety & Health Regulations, a Working Group member of the Canadian Aviation Regulatory Advisory Council, and a member of the World Health Organization's International Health Regulations Roster of Experts. He is licensed by the Medical Council of Canada and holds a license to practice medicine in both Quebec and British Columbia.

Dr. Thibeault is a member of a variety of professional organizations, among them the College des Medicins du Quebec, the Quebec Federation of General Practitioners, the Canadian Medical Protective Association, the Occupational and Environmental Medical Association of Canada, the Quebec Occupational Medical Association, and the Canadian Aerospace Medicine and Aeromedical Transport Association, of which he was a Founding Co-President. He is a Past President of the Airline Medical Directors Association and the International Academy of Aviation and Space Medicine where he is the current Secretary General.

Dr. Thibeault is a Fellow and Past President of AsMA, has served as a member of the Executive Committee and Council as well was on several search committees, has chaired the Passenger Health Subcommittee, the Air Transport Medicine Committee, and Nominating Committee.

His awards include the Canadian Armed Forces Decoration, the 150th Anniversary Medal of the Université de Montreal, the Kidera Award from the *See THIBEAULT p.* 726.

### THIBEAULT, from p. 725.

Airline Medical Directors Association in 2002, the Médaille du Centenaire de l'AMLFC, and the Won Chuel Kay Award from the Aerospace Medical Association (AsMA) in 2007.



### BOOTHB¥EDWARDS AWARD Paulo MagalhaesAlves, M.D., M.Sc.

Established in memory of Walter M. Boothby, M.D., pioneer aviation medicine researcher, and Howard K. Edwards, M.D., clinical practi-

tioner 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.

Paulo Magalhaes Alves, M.D., M.Sc., was the recipient of the 2012 Boothby-Edwards Award for his outstanding professional merit and scientific contributions on various aspects of Aviation Medicine that have promoted the health and safety of commercial airline pilots, cabin crews and passengers. He has a passion for promoting pilot health and has conducted medical research in various areas such as influenza immunization among aircrews, in-flight defibrillation and medical emergencies, aircrew fatigue, sinusitis treatment in aircrew, and HIV prevention and treatment. He has also implemented programs in substance abuse prevention and rehabilitation, fatigue management, and weight control. Paulo is currently the Vice President of Aviation Health for MedAire, an international organization that assists aviation companies (airlines, corporate aviation and private owners) manage remote medical events. He is researching aspects of pilot health while they travel (ground and in-flight).

A native of Natal, RN, Brazil, Dr. Alves earned an M.D. at the School of Medicine, Federal University of Rio de Janeiro, in 1979. He served a residency in Cardiology at University Hospital, Federal University of Rio de Janeiro, and earned an M.Sc. in Cardiology, also at the Federal University of Rio de Janeiro, in 1988. From 1984 to 1987, he served as a Professor in Cardiology at Fluminense Federal University and from 1983-1989 as a Cardiologist at Varig Brazilian Airlines. In 1989, he became Head of Medical Informatics, division of Medical and Social Assistance, at Federal University of Rio de Janeiro, where he also served as Vice-Director from 1991-1992. In 1992, he took a post as the Head of the Division of Research and Technology at Laranjeiras Cardiology Hospital. In 1993, he became the Director of Human Resources there. Starting in 1994, he served as Regional Medical Manager at Varig Brazilian Airlines in Rio de Janeiro until 1996. From 1996-2006, he also served as Medical Director at the Ruben Berta Foundation, Varig Brazilian Airlines.

During that same time, from 1993 to 2007, Dr. Alves was a Cardiologist in the Coronary Care Unit of University Hospital, Federal University of Rio de Janeiro. He also served as Cardiologist in the Intermediate Care Unit, Laranjeiras Cardiology Hospital, Brazilian Ministry of Health, from 1984-2007. From 1997-2006, he was also a BLS Instructor Trainer and from 1997-2007, a CAME for Transport Canada.

He has been Secretary-General and then President of the Brazilian Society of Aerospace Medicine, a member of the Scientific Committee of ICASM in 2000, Chairman of the Airlines Medical Directors Program Committee in 2009, and a member of the IATA Medical Advisory Group. Currently, he is Vice-President of Aviation and Maritime Health Worldwide at MedAire, Inc., Vice-President of the Airlines Medical Directors Association, a Fellow of AsMA, and a member of the AsMA Air Transport Medicine Committee.

Dr. Alves is also a member of the International Maritime Health Association, the Brazilian Society of Cardiology, the Brazilian Society of Aerospace Medicine, and the American Telemedicine Association. In the past, he was responsible for the AED on Board project at Varig Brazilian Airlines and a recipient of the George Kidera Award from the Airlines Medical Directors Association in 2010.



JOHN ERNSTINGAWARD Ulf I. Balldin, M.D., 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.

Ulf I. Balldin, M.D., Ph.D., was the winner of the 2012 John Ernsting Award for his outstanding research in altitude physiology. Dr. Ulf I. Balldin, a consummate researcher, has 38 peer-reviewed publications on altitude decompression sickness from four decades of DCS research in Sweden and at Brooks AFB, TX where he elucidated the nature and time course of neurologic and respiratory DCS. He also instructed and published 39 more aerospace physiology articles. He is a trained Diving Medical Officer, Flight Surgeon, and FAA-certified Commercial Pilot with Instrument Rating.

Dr. Balldin holds a B.S., an M.D., and a Ph.D. from the University of Lund, Sweden, where he became Docent (Deputy Associate Professor) in Medical Physiology and later in Experimental Clinical Physiology at the University of Linkoping. He received partial residency training in thoracic surgery and anesthesiology. After 8 years as Naval Diving Medical Officer (reserve) with training as Salvage Diver in the Royal Swedish Navy, he was later Senior Research Flight Surgeon for the Swedish Air Force.

In the early 1980s, Dr. Balldin performed one year of acceleration physiology research at the USAF School of Aerospace Medicine, Brooks Air Force Base, TX. Later he

See BALLDIN, p. 727.

### BALLDIN, from p. 726.

served 9 years as Professor in Aerospace Medicine and Head of the Department of Aerospace Medicine, Karolinska Institute Medical School in Stockholm in charge of its acceleration and altitude physiology research. Simultaneously, he was Director of the Institute of Aviation Medicine at the National Defence Research Establishment, Sweden, responsible for developmental centrifuge tests of the Tactical Flight Combat G-Suit for the Swedish fighter aircraft SAAB Gripen. For about 7 years in the 1990s he was Swedish/U.S. Liaison Scientist at Brooks Air Force Base, TX, working with acceleration and altitude physiology research. As an Adjunct Faculty Member at the USAF School of Aerospace Medicine he regularly lectured at its Aerospace Medicine Residency Program until 2011.

Dr. Balldin has published more than 275 scientific articles, proceeding articles, technical reports, and abstracts in aerospace medicine and related areas. He received several scientific awards mostly in the United States, but also in England, Finland, Sweden, and India and was titled Honorary Doctor (Aerospace Medicine) at the Russian Forces' State Scientific Research Test Institute, Moscow. He was a member of the Editorial Board of the journals of Undersea Medical Research and Aviation, Space, and Environmental Medicine. As a Fellow in the Aerospace Medical Association he was its Vice President for two terms. He is Academician and Past President of the International Academy of Aviation and Space Medicine and also Academician of the Royal Swedish Academy of War Sciences. He has earned a U.S. commercial pilot license with instrument rating with more than 1250 flight hours. He has been a U.S. citizen since 2002.

Currently, he is Senior Scientist at Wyle Science, Technology and Engineering at Brooks City-Base, TX. He has also been appointed Clinical Associate Professor at the University of Texas Medical Branch, Galveston, providing expertise to its Aerospace Medicine Residency Program.



### KENTK. GILLINGHAMAWARD WilliamErcoline,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.

William Ercoline, Ph.D., was the 2012 recipient of the Kent K. Gillingham Award. Dr. Ercoline is a world renowned expert in spatial disorientation and a colleague who collaborated with the late Dr. Gillingham during his research at the School of Aerospace Medicine. He has carried on Kent's work in spatial orientation, human factors and aviation safety. He co-authored the latest chapter on Spatial Orientation in Flight in the 4th Edition of Fundamentals of Aerospace Medicine. His work continues to promote a more efficient and safer flight environment.

Dr. Ercoline earned a B.A. in Physics in 1967 from the California University of Pennsylvania. He went on to earn a B.S. in 1977 and then an M.S. in 1978, both in Engineering Physics, at the Air Force Institute of Technology, Wright-Patterson AFB, OH. He also attended the U.S. Air Force Squadron Officers School, the Air Command and Staff College, and the Air War College. Additionally, he holds a Ph.D. in Engineering Management.

Dr. Ercoline has more than 30 years of research experience in the areas of human factors, spatial disorientation, flight symbology development, and general aviation psychology and physiology. He's a former Associate Professor of Physics from the USAF Academy. He currently manages the San Antonio centrifuge and altitude chambers operations for Wyle Science, Technology & Engineering Group at Brooks City-Base, TX. His team of researchers and technicians provide life support equipment research and development to the 711 Human Performance Wing, the USAF School of Aerospace Medicine, now located at Wright-Patterson AFB, OH, and several life support equipment commercial companies. He consults with USAF accident investigation boards and lectures for USAFSAM.

Dr. Ercoline has published many articles about the costs, causes, and countermeasures of spatial disorientation, and he co-edited and co-authored the textbook "Spatial Disorientation in Aviation." He lectures internationally on the subject of spatial disorientation and serves on multi-service working groups and international organizations specializing in aircrew performance in high workload environments. He has provided laser eye protection research support for the Directed Energy Branch of the Human Performance Directorate.

Dr. Ercoline has been an active member of the Aerospace Medical Association (AsMA) since 1985 and is an Associate Fellow. He has served as a journal paper reviewer and as an officer for several of the organizations within AsMA, including the Aerospace Human Factors Association and the Aerospace Physiology Society. He is also a member of SAFE, the Human Factors and Ergonomics Society, the Daedalians, and the International Association of Military Flight Surgeon Pilots. His awards include the Kent K. Gillingham Award from AsMA in 2003; the Sidney D. Leverett, Jr., Environmental Science Award from AsMA in 2001; the Bronze Star, Air Medal, Meritorious Service Medal, the Air Force Commendation Medal, and the National Defense Medal from the military; and the Joe Duckworth Award from the U.S. Air Force in 1994. He has been appointed a member of the Russian Academy of Sciences with an honorary Ph.D. and been an invited speaker for various air force medical institutes in Russia, the Netherlands, Germany, Britain, and Chile.

### 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 informaion, you can contact the Chair, at: awards@asma.org



WALTER AND SYLVIA GOLDEN-RATH AWARD CAPT Walter Goldenrath,MSC, USN(Ret.)(Posthumously)

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

Walter L. Goldenrath, CAPT, MSC, USN(Ret.), posthumously received the inaugural Walter and Sylvia Goldenrath Award in 2012 for his major contributions to the areas of high-altitude physiology and G protection. He had a career spanning more than 40 years, during which he developed high-altitude protective suits. He also provided instruction to Navy physicians and dentists and conducted research in hypertension at the University of California, Berkeley (UC Berkeley). After he retired, he continued his work as a consultant for NASA. He was inducted into the Smithsonian National Air and Space Museum Hall of Fame in 2004. His lifelong accomplishments are truly noteworthy.

A native of Tacoma, WA, CAPT Goldenrath graduated from the University of California at Berkeley first with an A.B., then an M.A. in Physiology. During World War II, he served in the Pacific and Southern Atlantic theaters. After the war, he returned to UC Berkeley to complete predoctoral graduate studies and later completed a graduate degree from the University of Southern California. He was recalled to active duty during the Korean War and assigned to the U.S. Naval Medical Institute as an instructor in high altitude physiology, where he trained flight surgeons and conducted research on G protection and explosive decompression. Following his service in the Korean War, he returned to UC Berkeley to continue his work on hypertension and to serve as a lecturer/instructor of Physiology. He taught basic Physiology at the School of Medicine and the School of Pharmacy, and also taught anatomy of the head and neck in the Dental School.

In 1955 CAPT Goldenrath returned to active duty as Officer in Charge of the Navy's research program to develop a high altitude protective pressure suit. The first two NASA astronauts, Alan Shepard and John Glenn, later wore this suit in Project Mercury. In 1970 CAPT Goldenrath was appointed Director of the Aero Medical Research Division at the Naval Air Development Center in Warminster, PA. His final military assignment was to the NASA-Ames Research Center as a Special Assistant to the Director of Life Sciences and as Assistant Division Chief of the Ames Biomedical Research Division.

CAPT Goldenrath retired from the U.S. Navy in 1975 and was awarded the Legion of Merit and the Meritorious Service Award from the Surgeon General of the Navy. Following his retirement, CAPT Goldenrath continued as a consultant to NASA, helping to transfer NASA biomedical technology to the civilian medical community. He was a Life Member of the Safety and Flight Equipment Association. He was also a Fellow and Vice President of the Aerospace Medical Association, and left a bequest to the AsMA Foundation. Additionally, he was one of the oldest members and the bibliographer for the Aerospace Physiology Society.



WON CHUELKAY AWARD Volker Damann, 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.

Volker Damann, M.D., received the 2012 Won Chuel Kay Award for devoting his career to assuring crew health for all astronauts flying on the International Space Station (ISS). He has been at the heart of international space medicine collaboration since the inception of the Multilateral Medical Operations Panel in 1996 supporting the ISS. He created the ESA Crew Medical Support Office from the ground up, including the development of an integrated Medical Flight Control capability in Cologne, Germany. In addition, he developed a new unit within the medical office that is specifically tasked to look into new ways to bridge the gap between life sciences research and operational space medicine with the goal to improve on-orbit clinical space medicine for future space programs. His work toward the establishment of a European space-medicine curriculum for students in the domains of medicine, engineering, and human physiology is nearing completion and will allow specialty education for the next generation of space health care providers.

Born in 1959 in Schweinfurt, Germany, Dr. Damann started medical school in Marburg, Germany, in 1979. After graduation from medical school in 1985, he worked in the University-Radiology department and specialized in Nuclear Medicine. In 1988, together with two colleagues, he established a private radiology practice, offering imaging services in the domains of conventional radiology, CAT, and nuclear medicine. Starting in 1989, he served for 6 years as a space flight surgeon at the German Aerospace Research Center (DLR). During that time, he supported eight Shuttle and two Soyuz/MIR missions as a crew surgeon. In 1995 he became the Lead Flight Surgeon and in 1998 the Head of the Crew Medical Support Office at the European Astronaut Center of the European Space Agency in Cologne, Germany. Under his leadership, the psychological and medical tests and examinations of a major ESA astronaut selection campaign were conducted in 2008/2009.

In 1996 Dr. Damann became a member of the

See DAMANN p. 729.

### DAMANN from p. 728.

Aerospace Medical Association (AsMA), the Space Medicine Association, and the Society of NASA Flight Surgeons and currently serves as the President of the Space Medicine Association. Within AsMA, he is an Associate Fellow and serves on the Scientific Program Committee and on the Council.



JOE KERWINAWARD Jay C. Buckey Jr., M.D.

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

Jay C. Buckey, Jr., M.D., was the 2012 winner of the Joe Kerwin Award for his inspirational accomplishments during his career as an Internal Medicine and Aerospace Medicine physician, teacher, author, mentor, and astronaut. He has done a tremendous amount of work and been instrumental in investigations and basic science that pertains to neurovestibular function on STS 90. His scope of expertise in Medicine, Aerospace Medicine and Hyperbaric Medicine makes him a unique resource and treasure for our specialty. His work at NASA has resulted in crucial input and guidance of 14 space hardware development projects.

Dr. Buckey is a Professor of Medicine at Geisel School of Medicine at Dartmouth (formerly Dartmouth Medical School) and an adjunct professor at the Thayer School of Engineering at Dartmouth. He received his B.S. in electrical engineering from Cornell University in 1977, and his M.D. from Cornell University Medical School in 1981. Dr. Buckey served as a flight surgeon in the U.S. Air Force Reserve from 1987–1995.

Dr. Buckey has more than 25 years of research and clinical experience in aerospace/undersea physiology and medicine. He has been involved in the design and flight certification of several pieces of spaceflight hardware, including the device used to make the first human invasive measurement in space (the system for the measurement of central venous pressure) and a flight microneurography system. In 1993, he served as an alternate payload specialist astronaut for the dedicated life sciences research mission Spacelab Life Sciences 2.

Dr. Buckey flew in space as a payload specialist astronaut on the STS-90 Neurolab mission in 1998, where he completed 256 orbits of the Earth and logged 6.3 million miles. During this mission, he was the first person to perform recovery surgery in space, operating on rodents. After the mission, he co-edited a book, "The Neurolab Spacelab Mission: Neuroscience Research in Space," published in 2003, which summarized the mission's results. In 2006, Oxford University Press published his book "Space Physiology," which won the Luigi Napolitano book award in 2007. He serves on the Editorial Board of Aviation, Space, and Environmental Medicine. Currently, he is a principal investigator on projects for the National Institute for Deafness and Communication Disorders (NIDCD) and the Office of Naval Research (ONR). The NIDCD project focuses on determining the incidence and nature of hearing loss in HIV positive individuals in Tanzania. The ONR projects are in the areas of decompression sickness and noise-induced hearing loss. The decompression studies are evaluating a new ultrasonic technique to detect and size small nitrogen bubbles in both blood and tissue. The hearing studies are focused on advancing the repeatability and usability of otoacoustic emissions to monitor noise-induced hearing loss.



MARY T. KLINKERAWARD Wg. Cdr. Ian Mollan, RAF, MC, D.Av.Med.

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.

Wg. Cdr. Ian Mollan, D.Av.Med., was the recipient of the 2012 Mary T. Klinker Award for his role as Officer Commanding the Aeromedical Evacuation Coordination Centre for the UK, during the period 2006 to 2010. He was responsible for repatriating patients during some of the busiest periods of conflict in Iraq and Afghanistan including protracted periods of daily CCAST movements. As the sole validating flight surgeon he provided aeromedical decision making for incredibly complex multi-trauma cases from operations year round. Not only did he validate over 18,000 British patients, he coordinated 2500 U.S. patients and fostered many international cooperative aeromedical evacuation initiatives and patient moves through NATO, ASIC, and the EU.

He has been instrumental in developing the Interfly Agreement that has saved the lives of both UK and U.S. servicemen by enabling CCAST and CCATT teams to work together on the same aircraft bolstering the capacity to respond to missions requiring multiple critical care movements. Over this period, not only has he worked tirelessly on real-time missions he has striven to advance the capability of aeromedical evacuation through technology, organization, and fostering international cooperation. His vision anticipated where unplanned diversions and use of other nations' assets could save life and made available UK assets to other nation's patients. He has specifically enhanced the cooperation with the U.S. by initiating inclusion of the UK on the U.S. Global Patient Movement Joint Advisory Board.

Wing Commander Ian Mollan was born in Holywood, Northern Ireland, and was educated at Campbell College, Belfast. Whilst at school he attained a Royal Air Force flying scholarship and Private Pilots Licence. See MOLLAN, p. 730.

### MOLLAN, from p. 729.

Graduating from the University of Dundee Medical School in 1997, he joined the Royal Air Force as a Medical Officer and trained as a General Practitioner. Serving in a variety of helicopter and fast jet units in the UK, Ian became the Senior Medical Officer to the Defence Helicopter Flying School at RAF Shawbury in Shropshire in 2004. He has deployed on various occasions to the Falkland Islands, the Middle East, and South West Asia. In 2006, he graduated with a Diploma in Aviation Medicine from King's College London and the RAF Centre of Aviation Medicine. He was appointed as SO2 Aeromed, the UK's sole validating flight surgeon, at the UK Aeromedical Evacuation Control Centre in August 2006. After promotion to Wing Commander in 2010, he served U.S. forces as the Coalition Validating Flight Surgeon at the Joint Patient Movement Requirements Center, Al Udeid Air Base, Qatar.

Currently, Ian is an Occupational Medicine trainee at the Regional Occupational Medical Department at RAF Brize Norton. He is an Academician of the International Academy of Aviation and Space Medicine. He is also an Honorary Lecturer in Aviation Medicine at the University of Otago, New Zealand.



### SIDNEYD. LEVERETT JR. ENVIRONMENTAL SCIENCE AWARD DwightHolland,M.D., Ph.D

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

Dwight Holland, M.D., Ph.D., was the recipient of the 2012 Sidney D. Leverett, Jr., Environmental Science Award for his outstanding activities in support of aerospace systems operations. He has been a leader for promoting better Human Systems Integration (HSI) practices in the Department of Defense and other governmental agencies and organizations. Dr. Holland's outstanding work for over a decade regarding redesigning and teaching various materials at the USN/USAF Test Pilot Schools, his by-name requested role as moderator in a Secretary of AF Acquisition Systems Engineering Process improvement initiative, leadership in various science/technology communities worldwide, and his comanagement of the novel "full coverage" anti-G suit flights in prescribed test profiles with physiologic, flight parameters, and workload measures make him a worthy recipient of this award.

Dr. Holland was the first reserve officer known to be assigned to the USN Test Pilot School and co-wrote/redesigned the Crew Systems Analysis curriculum in 2000. He also did this for the USAF test pilot school 7 years later – and in both received the highest marks as an instructor from students/staff over these years, training many classes of test pilots and flight test engineers in how HSI and modern flight testing issues are intertwined. He was selected by the Secretary of the Air Force/Acquisition to lead a hand-picked national class team from industry, DoD, and academia to brainstorm and make recommendations regarding ways to improve the systems engineering process for the USAF. He also served as the Technical Co-Chair and governmental leadership track organizer for the largest-ever Systems Engineering Conference to date in 2003—and highlighted how better Human-Systems Engineering leads to increased effectiveness and efficiencies.

Maj Holland is currently serving in a USAF Reserve role as the Deputy Director, Education Division at the Air Force Flight Test School (TPS) at Edwards AFB, CA. He co-led a multi-organizational and cross-command team in a novel high Gz G-suit evaluation project that is the first known example of dedicated flight test events with prescribed, high-G sorties with instrumented F-16 jets using the latest "full coverage" G-suit technology. These flights and centrifuge build up rides were successfully flown with data while the jet aircraft and pilots were fully instrumented including measures of flight parameters, G loads, O2 saturation, respiration, core and superficial body temperatures, and workload estimates. These data were presented at this year's AsMA meeting. This large multi-office effort project has received notice, and part of this work has already won the West Coast Society of Experimental Test Pilots best paper award, and has been nominated for the prestigious Collier trophy by the USAF Test Pilot School.

Dr. Holland holds Masters degrees in Geophysics and Systems Engineering, both from Virginia Tech (VT). He earned a Medical Doctor degree from the University of Virginia and a Ph.D. from VT in the highly-ranked ISE Department (Human Factors Engineering concentration). He has served as an elected member of the VT Alumni Association Board of Directors, and is on the University's Executive Committee for Diversity and Inclusion. While at VT, he was selected by the National Polar Research Board Chairman to participate in a Glacio-Geophysical Research Expedition to the Antarctic. Dr. Holland was responsible for the Gravity/Magnetics studies and first use of Global Satellite Positioning Systems (GPS) for Antarctic scientific surveys. He was awarded the Antarctic Service Medal by the National Science Foundation "...for valuable contributions to exploration and scientific achievement" for his geophysical research contributions. He flew in a specially outfitted Twin Otter research aircraft on most days. He also was awarded the Masters in Liberal Studies degree from Hollins University in May 2012, finishing the program with a graduate GPA of 4.0, and writing his "capstone project" on modern "lessons learned" from the Great Race for the South Pole of 100 years ago between R. Scott and R. Amundsen.

Dr. Holland received the 2002 Stanley N. Roscoe Award from the Aerospace Human Factors Association (AsHFA) for his dissertation on dynamic peripheral visual acuity under various levels of workload and target orientation. In 2005 he received the AsMA Won Cheul Kay Award for his efforts within the international human factors community. Also in 2005, he served as one of several co-authors on the AsMA 2005 Tuttle Award research *See HOLLAND, p. 731.* 

### HOLLAND, from p. 730.

team in the areas related to all-night flying fatigue and psychomotor performance, serving as the research pilot, and experimental design consultant for the project.

In the past he has held the prestigious Cunningham Fellowship at VT, and has over 100 academic presentations and publications to his credit, has Chaired over 50 panels, and been the Co-Editor of a Special Edition of an international Journal of Virtual Reality, and the co-author of a NASA HQ-sponsored book that debuted in May 2012 entitled: "Breaking the Mishap Chain: Human Factors Lessons Learned from Aerospace Incidents and Mishaps from Research, Flight Test, and Development". He has lectured all over the world on Leadership, Group Dynamics, and Organizational Culture for sustaining high performance teams.

Dr. Holland has owned his Ergonomics consulting business since 1990, which he started after working for General Electric in the Safety and Human Factors office developing a prototype Ergonomics Program to enhance productivity and worker safety.

He is a Past President of both the International Association of Military Flight Surgeon Pilots and the Space Medicine Association with membership gains and financial successes recorded by the teams in both organizations. He is an Academician of the International Academy of Aviation and Space Medicine. He has served on a variety of AsMA committees and Council for over 15 years and served on the AsMA Executive Committee.



### ERIC LILJENCRANTZAWARD ThomasFadellLuna, M.D., M.P.H.

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

Thomas F. Luna, M.D., M.P.H. was the recipient of the 2012 Eric Liljencrantz Award for his leadership in aerospace medicine education for over 20 years. His contributions have ranged from faculty and residency director to academic dean. He has taught aircrew, medical technicians, physiologists, psychologists, nurses, physicians, residents, and became a television subject matter expert, teaching the public at large. Under his leadership, new residencies were born and graduate education of aerospace medicine physicians was transferred across country to its new home at Wright-Patterson AFB. He also developed two-way training affiliation agreements with the Mayo Clinic, the University of Teas, and Wright State University that greatly expanded and formalized collaboration.

Dr. Luna directed the world's largest aerospace medicine residency. He brought new rigor to the program, increasing clinical training, resident research publications and scientific meeting presentations. He developed two aerospace medicine-family medicine sequential residency programs – the first in American history. He served as clinical preceptor for more than 75 residents. He built and formalized inter-institutional collaboration among ALL American RAM programs. As Associate Dean, he presided over the complete revision of primary USAF flight surgeon training, creating a more flexible modular course and, for the first time, incorporating a 2-week flying laboratory. Dr. Luna succeeded in moving the Air Force's School of Aerospace Medicine residencies and other flight surgeon courses from San Antonio to Dayton, OH – the first time in American history that residency programs in any specialty have been moved across state lines with no break in academic accreditation.

Dr. Luna was aerospace medicine faculty for 4 different institutions and an instructor or course director for 10 different courses. He provided continuing medical education for physicians via 28 presentations to international scientific audiences in 4 countries. He trained aircrew and air traffic controllers in aerospace physiology and human factors for more than 20 years. As Associate Editor, he shepherded more than 50 "You're the Flight Surgeon" stories to publication in Aviation, Space and Environmental Medicine - the most read part of the "Blue Journal". His explanations of human factors and mishap investigation reached a broad national audience when he was featured in a Discovery Channel special on aircraft mishap investigation. For his prolonged excellence in aerospace medicine education, the U.S. Air Force bestowed on Dr. Luna the special experience identifier as "Academic/Clinical Grand Master".

Dr. Luna is currently Adjunct Associate Professor of Public Health at the University of Texas School of Public Health in San Antonio, TX. He is also an Occupational and Aerospace Medicine Physician at 559 Medical Group, Lackland Air Force Base, TX. In the past, from 1998-2000, he was Chief of Aerospace Medicine, Chief of Occupational Medicine, and Commander of the 436th Aerospace Medicine Squadron at Dover Air Force Base, DE. From 1996-1998, he was Chief of Aerospace Medicine, Chief of Occupational Medicine, and Commander of the 51st Aerospace Medicine Squadron at Osan Air Base in Korea. From 1990 to 1993, he was Chief of Aerospace Medicine and Chief of Occupational Medicine at the 42nd Medical Group hospital at Loring Air Force Base in Maine. He is a Fellow of the American College of Occupational and Environmental Medicine and the Aerospace Medical Association, founding member of the the American Society of Aerospace Medicine Specialists, and was part of the U.S. Occupational Medicine Delegation to the People's Republic of China in 2008. He received the Society of USAF Flight Surgeon's Howard R. Unger Literary Award in 1998, and the American Medical Association's Resident Leadership Achievement Award in 1995. From the military, his awards include the Legion of Merit, six U.S. Air Force Meritorious Service Medals, four Outstanding Unit Awards, two Organizational Excellence Awards, the National Defense Service Medal, and the Global War on Terrorism Service Medal.

Checkout the August Issue for full photo coverage of the meeting and more!



### RAYMONDF. LONGACREAWARD Marvin M. Lange, M.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.

Marvin M. Lange, M.D., was the 2012 winner of the Raymond F. Longacre Award for his substantial contributions and enduring input to aerospace psychiatry. His operational experience as a Royal Canadian Air Force (RCAF) aircrew and Flight Surgeon translated into insightful, practical psychiatric consultative services for the RCAF, Transport Canada, and the Canadian Space Agency. His forward-thinking approach led to the controlled, evidence-based approval of SSRI medications in Canadian aircrew. He also contributed significantly to the selection and operational support of Canadian astronauts for International Space Station (ISS) duties and to the ISS Human Behavior and Performance Working Group.

A native of Canada, Dr. Lange earned an M.D. at the University of Manitoba in 1968 and became a Fellow of the Royal College of Physicians and Surgeons in 1977. He became a member of the RCAF/Canadian Air Force (CAF) in 1958 and was posted as a Navigator to an Antisubmarine Patrol Squadron in 1961. In 1970, he took training in Aviation Medicine to become a Flight Surgeon and served as a Senior Medical Officer and Flight Surgeon at Canadian Forces Base Lahr in Germany until 1973. From 1987 to 1988, he was Chief of Psychiatry at the National Defence Medical Centre, then became Psychiatry Advisor to the Surgeon General of Canadian Forces from 1987-1988. He served as Director of Education at Royal Ottawa Hospital from 1989-1990 and then Director of Clinical Services from 1990-2000.

From 1973 to the present, Dr. Lange has been Psychiatry Consultant to the Aviation Medical Review Board of Transport Canada. Since 1988, he has been a Psychiatry Consultant to the CAF/RCAF and since 1998 a Consultant in Behavioral Health and Performance to the Canadian Space Agency. Also since 1998, he has been a member of the Human Behavior and Performance Working Group of the ISS. After many years of dedicated service to the Canadian aviation community, Dr. Lange is preparing for retirement. He is currently Assistant Professor (Emeritus) at the University of Ottawa.

Overall, Dr. Lange has contributed his wealth of clinical and operational skills with compassion, and reasoned judgment to the field of aerospace psychiatry for over four decades, with positive impacts in the military, commercial aviation, and space realms.

Checkout the Photo Gallereieson our website! www.asma.org



# THEODOREC. LYSTERAWARD DouglasJ. Ivan, M.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.

Douglas J. Ivan, M.D., was the recipient of the 2012 Theodore C. Lyster Award in aerospace medicine for his outstanding lifelong achievements in military aviation and space medicine, particularly for his national and international contributions to aerospace ophthalmology.

Vision is the most important sense needed in aviation. Historically, the military recognized this early on and founded a section devoted to Aviation Ophthalmology. Colonel Ivan led that Aerospace Ophthalmology Branch of the USAF School Aerospace Medicine from 1992 to 2006. In this capacity, he and his branch produced outstanding clinical and research contributions that helped protect and enhance aviator visual performance.

Even prior to his leadership roles, he engaged in bench level research activities, such as, co-investigator in the first non-human primate study of G-force effects on intra-ocular lenses (IOL). These studies resulted in USAF approval of IOLs in aviators. Subsequently, over 150 USÂF aircrew were returned to flying after IOL surgery. Previously, all would have been permanently grounded. After becoming branch chief, he remained a co-investigator on numerous projects, such as, the high contrast yellow aircrew visor, the aircrew operational vision survey, and new color vision standards. Dr. Ivan helped design and acquire the USAF improved aircrew spectacle frame, the AFF, which replaced the legacy HGU-4/p military aircrew spectacle frame with a vastly superior quality combat frame. The AFF series of frames provides enhanced performance and protection for USAF military aircrew and has been adopted by some NATO air forces as well.

Perhaps his most significant contribution to date was his leadership role as principal investigator on the USAF Chief of Staff directed photorefractive keratectomy (PRK) surgery project. This project became the Aeromedical Foundation for USAF Aircrew PRK policy, ultimately allowing a larger segment of the population the opportunity for a military flying career, something previously denied.

Dr. Ivan is Board Certified in Ophthalmology (1979) specializing in Aerospace Ophthalmology and laser bioeffects. He graduated from Rensselaer Polytechnic Institute (RPI) in 1969 with a B.S. degree in chemistry and biology, as well as being a Distinguished Graduate from AFROTC, earning his private pilot license under the USAF Flight Indoctrination Program. He graduated with honors from the USAF Aerospace Primary Course

See IVAN, p. 733.

### IVAN, from p. 732.

and received his M.D. degree from Albany Medical College in 1973. Dr. Ivan completed an internship at Wilford Hall USAF Medical Center (WHMC) in San Antonio, TX, and went on to serve as an operational flight surgeon at Nellis Air Force Base in Las Vegas, NV, for the Tactical Air Command (TAC) 64th Fighter Weapons Squadron and the U.S. Air Force Thunderbirds. After completing his Ophthalmology Residency at WHMC in 1978, he was assigned to the Aerospace Ophthalmology Branch of the Clinical Sciences Division of the U.S. Air Force School of Aerospace Medicine (USAFSAM) at Brooks AFB, TX.

Dr. Ivan entered private ophthalmology practice in San Antonio in 1984, but remained active in research and teaching at Brooks in the Air Force Reserves. He returned to active duty in 1988 and served as the Aerospace Ophthalmology Branch Chief from 1992-2006. In 1994, he was selected Project Custodian of the Air Standardization Coordinating Committee (ASCC) Working Party 61 Project Group (PG) 113 to develop and formulate ASCC multinational standardization efforts in vision and visual displays. In 1997, he was selected Chief of the Clinical Sciences Division at Brooks and served in that capacity, as well as a Branch Chief, for 2 years, electing to return to full time ophthalmology in 1999.

In 1995, Dr. Ivan was selected as a U.S. Aerospace Medical Panel (AMP) Member for NATO's Advisory Group on Aeromedical Research and Development (AGARD). From 1994-2000, he served as co-chairman of NATO's Working Group 24 on Operational Colour Vision in the Modern Aviation Environment. Also in 1995, he was selected to chair NATO's first classified workshop on lasers and laser bioeffects. For his many years of dedicated service, he was awarded the NATO Research and Technology Organization Human Factors and Medicine "Panel Excellence Award" in 2001. In 1999, Dr. Ivan was designated AsMA representative to the International Civil Aviation Organization (ICAO) Laser Emitter and Flying Safety Study Group (LEF-SSG). He retired from active USAF military service in 2006 as a Colonel and Chief Flight Surgeon with over 1300 military flight hours. Following military retirement, however, he remained at Brooks as a USAFSAM contractor until Brooks' final demise under the BRAC process in 2011. He continues to provide independent consultative services to several civilian and governmental agencies.

In addition to being a longtime AsMA Fellow, Dr. Ivan is a Fellow of the Royal Aeronautical Society (RAeS) and an Academician of the International Academy of Aviation and Space Medicine (IAASM). His numerous honors include selection as: The John Lane Guest Speaker for the Aviation Medical Society of Australia and New Zealand in 1997; the USAFSAM Physician/Ph.D. Clinical Specialist of the Year Award in 2000; the Society of USAF Flight Surgeons 2001 George E. Schafer Award, and being the named lecturer for the RAeS 2006 Stewart Memorial Lecture.

### NEW ABSTRACT SUBMISSION SITE OPENS SEPTEMBER 1! Start preparing for the 2013 annual meeting in Chicago!



#### MARIE MARVINGT AWARD Quay Snyder, M.D., M.S.P.H.

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.

Quay Snyder, M.D., M.S.P.H., was the 2012 winner of the Marie Marvingt Award for his innovations in the fields of aerospace medicine, safety and the health of aviation professionals. His creation of the Virtual Flight Surgeons, Inc., website devoted to health and safety issues has given pilots and controllers worldwide access to accurate, timely, free information on aeromedical certification and aviation safety implications of personal health conditions, encouraging appropriate treatment and reporting to certification authorities without fear of career loss, thus achieving twin goals of health preservation and safety enhancement. He has assisted thousands of airline pilots and air traffic control specialists with aeromedical certification issues.

Dr. Snyder is President/CEO and co-founder of Virtual Flight Surgeons, Inc., and its aeromedical division, Aviation Medicine Advisory Service (AMAS), an organization dedicated to aviation safety, pilot health, and career preservation. He is a graduate of the U.S. Air Force Academy and Duke University School of Medicine. He has completed medical residencies in Family Practice and Aerospace Medicine and is board certified in both specialties and in Occupational Medicine. He received his M.S. in Public Health from the University of Colorado Health Sciences Center.

Dr. Snyder spent 17 years in the active U.S. Air Force as a flight surgeon and family practice physician. He was selected as his command's Flight Surgeon of the Year on three separate occasions. Dr. Snyder also spent 5 years in the Colorado Air National Guard as a flight surgeon and Colorado State Air Surgeon. He retired from the USAF after a 3-year tour as the senior physician/flight surgeon at the USAF Air Reserve Personnel Center following his demobilization from Operations Noble Eagle/Enduring Freedom. He is currently an Assistant Clinical Professor at the University of Colorado Health Science Center in the Department of Preventive Medicine and Biometrics and at the National Jewish Medical Center and Research Center in the Department of Occupational Medicine. He is also on the associate clinical faculty at the USAF School of Aerospace Medicine, Wright-Patterson AFB, OH, and the Boonshoft School of Medicine at Wright State University in Dayton, OH. He was named as the Air Line Pilots Association (ALPA) Aeromedical Advisor in January 2010 after serving as an Associate Advisor since 1994.

See SNYDER, p. 734.

### SNYDER, from p. 733.

Dr. Snyder created the Virtual Flight Surgeon's web site, www.Aviationmedicine.com, in 1998 as a comprehensive resource for pilots, aviation medical examiners and aviation safety enthusiasts. The web site is a free resource with hundreds of pages of educational material for pilots concerned with a full spectrum of health issues and their implication for medical certification. Dr. Snyder is a rated commercial pilot, FAA certified flight instructor since 1975, an FAA Safety Team Representative for the FAA Denver FSDO and a FAA Designated Pilot Examiner for private, commercial, and flight instructor ratings. He formerly served as a glider instructor pilot and aerobatic / spin instructor at the U.S. Air Force Academy's 94th Flying Training Squadron. He is the recipient of the Air Force Academy's award for the 94th Flying Training Squadron's Attached Instructor Pilot of the Year, 2000. He instructs for the Black Forest Soaring Society. He has also earned the National Association of Flight Instructors (NAFI)/Society of Aviation and Flight Educators (SAFE) Master CFI Designation since 2003. He was awarded the 2012 Colorado/Wyoming FAA Safety Team Meritorious Medal for service and education promoting safe aviation operations.

Dr. Snyder is the author of more than 70 papers and articles on medical issues in various scientific and professional pilot journals. A frequent speaker at national aviation safety conferences, he had given over 50 presentations on wide variety of topics. He is the 1985 recipient of the Howard Unger Award given by the Society of USAF Flight Surgeons for the outstanding published research paper in aerospace medicine and its 2008 General George Schaefer Award for lifetime achievement in Aerospace Medicine. He is a member of the Flight Safety Foundation's Corporate Aviation Committee and the National Business Aviation Association's Safety Committee. Dr. Snyder is a reviewer and has served on the Editorial Board of the journal Aviation, Space, and Environmental Medicine of the Aerospace Medicine Association (AsMA) and a Fellow of AsMA who serves on the Scientific Program Committee.



### HARRY G. MOSELEYAWARD Andrew H. Bellenkes, 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.

Andrew H. Bellenkes, Ph.D., was the winner of the 2012 Harry G. Moseley Award for his significant contributions to aviation safety and human factors during three decades of service in the U.S. Navy. He has held key positions as a research scientist, program manager, safety officer, and educator. He is recognized nationally

and internationally as an authority in his field. His outstanding accomplishments are underwritten by his professionalism, leadership, and impeccable integrity. During his career, he directed human engineering efforts for naval/marine aviation safety including cockpit design, spatial disorientation, and G tolerance. His accomplishments are supported by operational experience aboard two aircraft carriers.

In 1982, Dr. Bellenkes entered the U.S. Naval Flight/Aeromedical Training program in Pensacola, FL, and was designated an Aerospace Experimental Psychologist in 1982. He next served as Division Officer of the Vestibular Sciences Laboratory at the Naval Aerospace Medical Research Laboratory in Pensacola.

Dr. Bellenkes left active duty in 1985 to join the Human Factors Engineering team at Grumman Aircraft Systems Division in New York, where he was a member of the F-14D cockpit design and Aircraft Advanced Systems groups. As a Naval Reservist, he was assigned to the 4th Marine Air Wing Medical Unit and later as Assistant Flight Operations Safety Officer on both the USS Carl Vinson (CVN-70) and USS Theodore Roosevelt (CVN-71). Later he became the Head of Human Factors Engineering with the Government Systems Division of the Control Data Corporation in Minneapolis, MN. In this position, he was the Program Manager for all human engineering efforts for the joint-service Advanced Tactical Airborne Reconnaissance System.

Following his assignment in 1990 to the U.S. Central Command for the Operation Desert Shield, Dr. Bellenkes returned to full active duty and was assigned to the Naval Safety Center in Virginia as the Head of Human Factors Engineering in the Aeromedical Branch until 1994. In addition to his duties in mishap investigation, analysis, and prevention, he was the Head of the Cockpit Workload Advisory Group, the Safety Center's representative to the V-22 program, and was co-editor of the 4th edition of the "U.S. Naval Flight Surgeon's Pocket Mishap Investigation Manual."

A native New Yorker, Dr. Bellenkes earned a Ph.D. in Aviation Human Factors (with a joint-minor in Political Science) from the University of Illinois (1999). He is also a graduate from the College of Naval Command and Staff of the U.S. Naval War College (1994). Dr. Bellenkes attended the Naval Postgraduate School in October 2000 as an Assistant Professor (military) in Aviation Human Factors and Mishap Investigation, School of Aviation Safety. He created and taught several landmark courses in aviation safety and human factors as well as aircraft mishap investigation techniques. He also mentored numerous student research projects. In 2003, he assumed the duty as Manager, Science and Technology/Research and Development, Acquisitions Program Branch for the Deputy Chief of Naval Operations (Manpower & Personnel) in Washington, D.C. In July 2006, he was assigned to the Military Faculty at the U.S. Air Force Academy where he held the titles of Director of the Department's Human Factors program and Assistant Professor (military). He created the Air Force Academy's first Human-Systems Integration course and mentored many cadet research efforts. He was also the command's Anti-Terrorism and Force Protection specialist.

Returning from out-service training for his Ph.D., Dr.

See BELLENKES, p. 735.

### BELLENKES, from p. 734.

Bellenkes was then assigned as the Force Aviation Human Factors Safety Officer (N452) for the Commander, Naval Air Force, U.S. Atlantic Fleet (CNAL) in Norfolk, VA. He was also CNAL Force Safety Human Factors Engineering representative to the CVN OAG and CVX (now, Advanced Carrier) Design Fleet Process Team, Director of Fleet Aeromedical Operational Risk Management Training, and a member of the Human-Systems Integration System Safety working group and the Human Factors Quality Management Board. He was also CNAL's human engineering expert for advanced aircraft acquisition programs, and created a formal human factors safety program for CNAL operators of unmanned remotely piloted aircraft (UAVs), the first of its kind in the Navy.

Dr. Bellenkes has been a NATO/AGARD consultant to the German Air Force, and maintains ongoing joint efforts with military and civilian counterparts throughout Western and Eastern Europe and Central and South America. His work has been published extensively in a number of U.S. and European flight safety and Homeland Defense/Asymmetric Warfare-related journals and books. His chapters on `The Human Factor in Aircraft Mishaps' and on `Human Engineering Aspects of Aircraft Mishap Investigation' were published in the Aerospace Medical Association's Handbook for Aviation Accident Investigators, and the Naval Flight Surgeon's Mishap Investigation Pocket Checklist. His book chapter on Human Systems Integration and Operational Risk Management in Aviation Safety was published in 2009. He has been designated as a "Certified Human Factors Professional" by the Board of Certification in Professional Ergonomics and has also been listed on the Professional Register of Institute of Ergonomics and Human Factors. He is a member (Academician) of the International Academy of Aviation and Space Medicine, Past President and Fellow of the Aerospace Medical Association, a Past President of the Aerospace Human Factors Association, and is an active member of several Professional Societies.



### JOHN PAUL STAPP AWARD MichaelJ. A. Trudgill, MB BCh, MRCGP, Dip IMC, RCS(Ed), DAvMed, DOccMed, FRAeS

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.

Michael J. A. Trudgill, MB BCh, MRCGP, Dip IMC, RCS(Ed), DAvMed, DOccMed, FRAeS, was the winner of the 2012 John Paul Stapp Award for his expertise in aircrew equipment form, fit, and function. He is one of four full-time specialists in Aviation Medicine at the RAF Centre of Aviation Medicine. His department has, even in times of austerity, delivered operationally focused expertise for both rotary and fixed-wing aircraft. He led the drive for the development of national and international aircrew equipment integration standards with a Defence Standard covering integration and testing of aircrew equipment assemblies and a further National Standard for functional cockpit assessments. His recent work has highlighted the potential operational risk from the currently fielded lightweight body armor caused by otherwise survivable low-impact crash scenarios. His findings emphasized the need for a redesign of the carrier system.

Dr. Trudgill graduated in medicine from the University of Wales college of Medicine in 1989. A sponsored medical cadet with the Royal Air Force, he completed elementary flying training with the University Air Squadron prior to house jobs at the Royal Air Force Hospital Ely. He served as a junior medical officer at a number of fast jet stations and seized every opportunity to get airborne, managing to accrue over 200 hours in fast jets and participate in numerous SAR helicopter missions. Further station tours included six months as the Aeromedical Evacuation Coordination Officer for the South Atlantic and Senior Medical Officer for the UK basic fast jet flying training stations.

On completion of General Practice Vocational training he gained Membership of the Royal College of General Practitioners in 1996 and then completed further postgraduate diplomas in immediate medical care and occupational medicine. He completed the diploma in aviation medicine in 1997 and entered full time aviation medicine at the newly formed RAF Centre of Aviation Medicine in 2000. During his service career he saw operational service in the first and second Gulf wars as well as the Balkans.

Dr. Trudgill left the Royal Air Force as a Wing Commander in 2003 but continued to work as a civilian senior medical officer at the RAF Centre of Aviation Medicine. Here he has led the Aircrew Equipment Integration Group (AEIG), growing its knowledge and experience to cover many the aspects of Aircrew Protection. The AEIG is a multidisciplinary and multinational team that provides support in the field of protective and survival equipment for all military aircrew. The team includes medical officers, safety equipment fitters and physiologists, providing direct support in a wide variety of areas such as fire-retardant clothing, hearing protection, aircrew helmets, respirators, ballistic protection and sea survival equipment. The medical officers in the team also provide clinical and occupational support to front-line aircrew. In the last decade its role has become increasingly operationally focused and it now provides the essential, and frequently urgent, aviation medicine support required by many platform project teams. The aim has been and remains to provide the right equipment to allow the aircrew to do their job efficiently and safely. The contribution to Defence by AEIG was recently recognized by the award of a MOD Chief Scientific Adviser Certificate of Commendation.

He was elected a Fellow of the Royal Aeronautical Society in 2004, received the Richard Fox-Linton Memorial prize in 2005, and the Astra Zeneca prize for Occupational Medicine in 2006.

An enthusiastic private pilot with over 1000 hours, he

See TRUDGILL, p. 736.

### TRUDGILL, from p. 735.

is an active member of the UK LAA and has held both testing and display authorizations. He is an aircraft owner and enjoys all aspects of the restoration, maintenance and operation. Currently he flies a single seat aerobatic machine and a twin seat aerobatic trainer.



JOHN A. TAMISIEAAWARD DavidA. Bryman, D.O.

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 A. Bryman, D.O., was the 2012 recipient of the John A. Tamisiea Award for his selfless giving of his time to help others. He is an outstanding AME, airman and humanitarian. A pilot himself, he selflessly gives of his time to help others, serving as volunteer pilot for Flying Samaritans, Angel Flight West and pilot and squadron flight surgeon for the Civil Air Patrol.

Dr. Bryman is a Senior Aviation Medical Examiner (AME) for the FAA, Transport Canada, JAA, Australia and New Zealand, seeing approximately 4800 pilots a year. He demonstrates a concern not just for the medical certification of the airmen, but also for their overall health and well-being. He serves on the Human Intervention Motivation Study (HIMS) Advisory Board. As a HIMS AME, Dr. Bryman provides close oversight and coordination with the airman's substance abuse treatment professionals and the FAA to allow these commercial pilots to return to duty safely. His knowledge and expertise is well-respected within the aviation medical community and is also well respected within the aviation community itself.

Dr. Bryman graduated with a B.A. in Psychology in 1982 from the State University of New York at Buffalo and earned a Doctor of Osteopathic Medicine in 1986 from the University of Osteopathic Medicine & Health Sciences in Des Moines, IA. He served an internship at Union Hospital in Union, NJ, from 1986-1987 and a residency at Phoenix General Hospital in Phoenix, AZ, from 1987-1988. Also in 1988, he attended the University of California, Los Angeles, Medical Acupuncture course and passed the National Proficiency Exam in 1999. From 1988 until 1992, he worked at Desert Health Associates in Scottsdale, AZ. He also spent one year at Florence Medical Center Emergency Department in 1997, leaving when the hospital closed. He served in Family Practice from 1987-2002 and became an Urgent Care Physician in 2001, a position he still holds.

Dr. Bryman also currently serves as a Family Physician. He was an Emergency Physician at Copper Queen Hospital in Bisbee, AZ, in 2008. From 2009-present, he has served at San Carlos Indian Hospital in San Carlos, AZ. He also serves at Next Urgent Care since 2009 and at Kayenta Indian Hospital as an Emergency Department Physician since 2011. He is board-certified as a diplomat of the American Osteopathic Board of Family Practice, the American Board of Bariatric Medicine, and the American Board of Medical Acupuncture. He also holds Emergency Medicine certifications from the American Academy of Pediatrics, the American College of Surgeons, and the American Heart Association.

Dr. Bryman's awards include the Excellence Award for providing excellent patient care from Chandler Hospital in 2008, election to the American Osteopathic Association Mentor Hall of Fame in 2006, the FAA Safety Counselor of the Year Western Region in 2003, the Commander's Award from the Civil Air Patrol in 2002, the Dr. Vernon B. Astler Award in 2010, and the Ruth Reinhold Award for Aviation Safety in 2010. He is an Associate Fellow of the Aerospace Medical Association and serves on the International Activities and the Scientific Program Committees, was Vice President in 2010 and President from 2006-2008 of the Civil Aviation Medical Association (CAMA), was Editor of CAMA's "Flight Physician" from 2003-2005, is on the ALPA HIMS Advisory Board, and is a member of the Airline Medical Directors Association, the American Society of Bariatric Physicians, the American College of Osteopathic Family Practitioners, the American Osteopathic Medical Association, the American Academy of Medical Acupuncture, the Arizona Osteopathic Medical Association, the Arizona Pilots Association, the Civil Aviation Medical Association, the Flying Physicians Association, and the International Society of Travel Medicine.



ARNOLDD. TUTTLEAWARD David Andrew Self, Ph.D.

Established in memory of Col. Arnold D. Tuttle, USAF, MC. Awarded annually for original research that has made the most significant contribution toward the solution of a challenging problem in aerospace medicine and which was published in Aviation, Space, and Environmental Medicine. Sponsored by Wyle Laboratories.

David Andrew Self, Ph.D., received the 2012 Arnold D. Tuttle Award for his role as lead author of "Physiological Equivalence of Normobaric and Hypobaric Exposures of Humans to 25,000 Feet (7620 m)" (Aviat Space Environ Med 2011; 82:97-103). His coauthors were Joseph G. Mandella, O. Veronika Prinzo, Estrella M. Forster, and Robert M. Shaffstall. The article evaluated whether physiological differences between normobaric exposures in a portable reduced oxygen training enclosure (PROTE) and a hypobaric environment inside an altitude chamber would translate into actual differences in hypoxia symptoms. The authors found that there were differences in alveolar gas composition and arterial hemoglobin oxygen desaturation

See SELF, p. 737.

#### SELF from p. 736.

patterns between ground level and hypobaric exposures. They also found differences in the number of hypoxia symptoms at one minute of exposure between the ground level and hypobaric environments. They concluded, based on their results, that ground-level hypoxia training in a PROTE may be a sufficient surrogate for altitude chamber training.

Dr. Andy Self is currently a Research Physiologist with the FAA, and heads the Environmental Physiology Team at the FAA Civil Aerospace Medical Institute (CAMI) in Oklahoma, OK.

He began his military career as a navigator assigned to 350th Air Refueling Squadron, Beale AFB, where he flew KC-135Q air refueling missions in support of SR-71 worldwide reconnaissance operations from 1978 to 1984. He received his Ph.D. in Animal Physiology in 1988 from Washington State University. He returned to active duty after completing an NIH postdoctoral fellowship in cardiovascular physiology. Andy was active in acceleration research at Brooks AFB, and taught physiology at the Uniformed Services University. He attended Air Command and Staff College in residence. In 1995 Dr. Self was the recipient of an AFOSR Window on Europe Scientist Exchange Program and was a Visiting Scholar at the University of Leeds, Dept of Cardiovascular Studies. He retired from the U.S. Air Force in 2003, finishing his Air Force career serving as Chief of Aerospace Physiology in the School of Aerospace Medicine at Brooks AFB, TX.

After retiring from active duty, he earned a BSN from the University of the Incarnate Word, and became an operating room nurse on an open heart surgery team at Baylor Medical Center, Dallas, TX. Dr. Self joined CAMI in 2009, and is actively pursuing research in aircraft passenger and crew protection from the extreme environment at very high altitudes.



### JULIAN E. WARD AWARD CharlesH. Mathers, M.D., M.P.H.

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.

Charles H. Mathers, M.D., M.P.H., received the 2012 Julian E. Ward Memorial Award for his outstanding residency career as a combined Internal Medicine/Aerospace Medicine resident at the University of Texas Medical Branch (UTMB). In internal medicine, he was chosen as the outstanding intern out of 35 and was chosen the outstanding graduating resident. He served as chief resident and was nominated for outstanding overall resident at UTMB by internal medicine. His aerospace medicine residency has been phenomenal, and he has excelled in leadership, academics, service, and science. He is currently Senior Associate Consultant in the Division of Preventive, Occupational, and Aerospace Medicine at the Mayo Clinic in Scottsdale, AZ.

During his residency, Dr. Mathers employed earmounted tri-axial accelerometers to investigate head acceleration in rough stock riders--a breakthrough in technology and medical knowledge. The findings were presented at the National Finals Rodeo, the AsMA annual meeting, and accepted by Athletic Training & Sports Health Care journal (now available online). The technology and procedures he developed were employed at the U.S. Aerobatic Championships to investigate the wobblies and by the Stratos Parachute Project. He is publishing a case of hereditary hemorrhagic telangectasia in the Federal Air Surgeon Bulletin. H also co-authored the Flight Crew Medical Guidelines and Passenger Acceptance Criteria for Commercial Space Flight. He was co-author on "Musculoskeletal Injuries and Minor Trauma in Space" (ASEM 2009;80:117-24); this paper was selected as the 2010 Space Medicine Association paper of the year.

Dr. Mathers is a native of Farmington, CT, and earned his M.D. at UTMB in Galveston, TX. He graduated with an M.P.H., also from UTMB, in 2009 and attended the FAA Aviation Medical Examiner Basic Seminar in 2011 and the U.S. Air Force Aerospace Medicine Primary Course in 2011. He served a double residency at UTMB in Internal Medicine (2007-2010) and Aerospace Medicine (2007-2012), becoming Chief Medical Resident from 2010 to 2011. He is board-certified in Internal Medicine by the American Board of Internal Medicine.

He has taught as a Faculty Supervisor at St. Vincent's Free Clinic in Galveston, TX, from 2011-2012 and was Attending Physician at the UTMB Division of Medicine from 2010-2012. He also instructed first-year medical students in the Practice of Medicine Course from 2010-2011 and was Continuity Clinic Preceptor during his UTMB Internal Medicine residency from 2010-2011. He has had a variety of responsibilities, ranging from assisting in the development of orbital and suborbital crew medical guidelines to serving on various committees.

Dr. Mathers' awards and honors include the Stanley R. Mohler, M.D., Aerospace Medicine Endowed Scholarship from the Aerospace Medical Association Foundation in 2011, the Society of NASA Flight Surgeons Space Medicine Recognition Award in 2010, Outstanding Third-Year Resident in Internal Medicine in 2010, Outstanding Intern in Internal Medicine in 2008, the Texas Space Grant Consortium Columbia Crew Memorial Scholarship in 2006, the NASA Space & Life Sciences Directorate Special Professional Achievement Award in 2002, and the Gilbert L. Hermance Award from Rice University in 2002. He was also a member of the winning team in the RAM Bowl in both 2009 and 2010. He is an Associate Fellow of the Aerospace Medical Association, and a member of the American College of Physicians, the Society of NASA Flight Surgeons, the Space Medicine Association, and the American Society of Aerospace Medicine Specialists.

Send information for publication on this page to: News of Members AerospaceMedicalAssociation 320 S. Henry Street Alexandria,VA 22314-3579 pday@asma.org

### NEWS OF MEMBERS

### In Memoriam James M. Duncan, M.D.

AsMA was saddened to learn of the death of James M. "Mike" Duncan, M.D., in a recent plane crash in Fauquier County, VA. He had been inducted as an Associate Fellow of AsMA just this year.

A native of Kansas, Dr. Duncan graduated from Kansas State University with a B.S. in Nuclear Engineering in 1974. He earned an M.D. at the University of Kansas School of Medicine in 1977 and served as an internship from 1977-1978 and then a residency from 1979-1981 at the Naval Regional Medical Center in Portsmouth, VA. He also held a Fellowship at the Naval Regional Medical Center and the University of Virginia School of Medicine from 1981-1983. He was board-certified by the American Board of Internal Medicine.

Dr. Duncan served in the U.S. Navy from 1977-1985, including an assignment as Medical Officer aboard the USS *Guam* from 1978-1979. From 1983 to 1985, he served as a Staff Physician at the Naval Regional Medical Center in the Attending Physician Pulmonary Fellowship Program and as an Attending Physician, Critical Care Medicine, in support of the Medical and Surgical

Residency Programs. From 1985 to 1991, he was in private practice in Pulmonary and Critical Care Medicine at Williamsburg Community Hospital, Williamsburg, VA. He then moved to a private practice in Pulmonary and Critical Care Medicine at the Memorial Hospital of Martinsville and Henry County in Martinsville, VA, in 1992. At the time of his death, Dr. Duncan was working as a Chief Medical Officer for the National Transportation Safety Board. In the past, he served as a flight surgeon at NASA, providing space medicine support for NASA space shuttle and International Space Station astronauts. He also supported the first landing of American astronauts in the Soyuz in May 2003 and led the mission to assist the Chilean miners trapped in the mine in Copiapo, Chile. He chaired a panel at AsMA's Annual Meeting in Anchorage, AK, last year on "The Chilean Miner Rescue: The NAŚA Experience."

Dr. Duncan was a Fellow of the American College of Chest Physicians and a member of the American College of Physicians, the American Medical Association, the American Thoracic Society, the Society of Critical Care Medicine, the Undersea and Hyperbaric Medical Society, and the Virginia Thoracic Society.

#### **NEW MEMBERS**

LTJG Eric E. Anderson, USN, Oak Harbor, WA Maj. Richard R. Hannah, CF, MC, Gulf Breeze, FL Hardy M. Hardy, Eliot, ME Mr. Jason W. Kissell, Upland, CA Steven D. Lasser, M.D., Canandaigua, NY LCDR Cory J. Littel, USN, Patuxent River, MD LTC J. Mark Maddox, MC, USN, Bend, OR Barbara Martin, Atlanta, GA LT Kimberly Marymann, USN, NAS Patuxent River, MD Graves T. Owen, M.D., Round Rock, TX CDR Blaine M. Powell, MC, USN, Port Orchard, WA Venkata Ravi Prasad Pullela, Labrador City, NL, Canada Alejandro Ramos, Albuquerque, NM Capt. Christopher M. Scheibler, USAF, MC Wilson Wan, M.D., Vancouver, BC, Canada

### INDEX TO ADVERTISERS

AerospaceMedicalAssociation
Corporate Members
Information for AuthorsCover III
EuropeanSchoolof Aviation
Medicine
ETCCover IV
UHMS738



# SIGNS & SYMPTOMS OF GOOD MEDICINE.

### UNDERSEA AND HYPERBARIC MEDICINE JOURNAL

The Journal of the Undersea & Hyperbaric Medical Society

UHMS: providing the best information in diving and hyperbaric medicine for medical, research and aviation professionals.

For more information, contact uhms@uhms.org today.

The Undersea and Hyperbaric Medical Society (UHMS) is an international non-profit organization serving 2,500-plus members in more than 50 countries. The UHMS is the primary source of scientific information for diving and hyperbaric medicine physiology worldwide.