President's Page

January is a good time to contemplate starting over, and making changes. New Year's Resolutions are sincerely made, and often rapidly broken about this time of year.

But we in AsMA will be seeing some very significant course changes implemented, beginning now. And we won't be breaking these resolutions.

Dr. Fred Bonato became the official Editor-In-Chief of this journal, as of this issue. As I described in an earlier President's Page, the handover has been stepwise and deliberate. I met him in person for the first time at the Council and Scientific Program Committee meetings in November. I was pleased to meet him, and am confident of his ability to maintain and improve Aviation Space and Environmental Medicine. He is a welcome addition to the AsMA leadership team.

Dr. Sally Nunneley will remain involved, reviewing papers for which she began the review process. She will remain available to consult with Dr. Bonato, as needed.

Jeff Sventek officially becomes Executive Director of AsMA on 11 January. I wrote about him last month in some detail. For most of you, your first opportunity to see him in his new role will be in Phoenix.

I also met with him during the Council and SPC meetings. He is very excited, energetic, and raring to get going. He's got some great ideas, and will help make AsMA what it needs to be.

Dr. Russell Rayman, like Dr. Nunneley, has been extremely cooperative and helpful in the transition. He has assisted the search committee with details of his position and daily duties. He has also volunteered to assist after the handover by being available to consult with Jeff. In short, he'll be there.

And Russ will remain involved in AsMA. So, when you see him in Phoenix, be sure to say aloha.

Robert W. Weien, M.D., M.P.H.

But along with the opportunities presented by Fred and Jeff, our Association is facing challenges. The recession has affected us, as it has affected the rest of the world, including many of us individually.

Our membership has remained level for the last few years, and many of us think we are well positioned to begin to increase it. Your Membership Committee will be analyzing our membership data, and working to retain current members, as well as add new ones.

The uncertain H1N1 situation led to a lower attendance at our Los Angeles meeting last May. This combined with our overall lowered membership contributes to less income. Thus our financial situation does not have as much wiggle room as it did in some prior years.

I am confident that we will weather this, and expect us to recover over time. In the meantime we will be looking for efficiency improvements, without affecting the member services we provide now.

As your leadership works to make the Association more secure, be assured that the scientific exchange and fellowship most of us enjoy will continue uninterrupted.

If you have any comments, questions, or other inputs, please contact me at president@asma.org.

Association News

Sventek Approved as New Executive Director

Jeffrey "Jeff" Sventek, M.S., was approved as the new Executive Director of the Aerospace Medical Association during the semi-annual Council meeting on Wednesday, November 18, 2009. He will assume his duties at the Alexandria, VA headquarters office on January 11, 2010. At that time, Dr. Russell B. Rayman will retire after 18 years of dedicated service to our Association.

Sventek is a Fellow of AsMA and a Past President of the Aerospace Physiology Society.

He was most recently an Associate with Booz Allen Hamilton, Inc. assigned to the Civil Health Team and supported the Air Force Human Systems Integration Office He was also the Subject Matter Expert on Human Performance Optimization in the Office of the Deputy Assistant Secretary of Defense for Force Protection and Readiness.

A native of Corry, PA, Jeff was an Honor Graduate of USAF Basic Military Training in 1972 and was promoted to Airman. He attended the University of Nebraska at Omaha on a Reserve Officer Training Corps scholarship, graduating *Magna cum Laude* in Biology in 1978. Upon graduation he was commissioned in the USAF and completed the Basic Aerospace Physiologist Course. He later received his Master of Sciences degree in physiology from Rutgers University in 1985. He was certified in Aerospace Physiology in 1986. He attended numerous professional courses throughout his military career including Squadron Officer School, Air Command and Staff College and Air War College, Physicians in Management I, II & III—professional management training, Air Mobility Command Squadron Commanders' Course, and the Interagency Institute for Federal Healthcare Executives and Military Health System Capstone Course—senior executive leadership course for select healthcare executives from all uniformed services.

He began his long and distinguished military career as an Air Force Musician with the 702nd Strategic Air Command Band. After graduating from college he became an Aerospace Physiologist, USAF Regional Hospital, Sheppard AFB, TX. His next assignment from 1980-83 was as Officer in Charge, Operational Support 15th Physiological Training Flight, USAF Clinic, Kadena AB, Japan.

Later, from 1985 to 1988, while at Mather AFB, CA, he was assigned as Assistant Chief of Aerospace Physiology. He was selected the 323 Flying Training Wing Non-Flying Officer Instructor of the Year for 1986 and 1987; the Air Training Command Non-Flying Officer Instructor of the Year 1986; and the Air Force Association Non-Flying Officer Instructor of Year in 1986.

Other highlights of his military career include the following: first-ever Lieutenant Colonel selected by AF Surgeon General to serve as Chief of AF Aerospace Physiology; Commander 89th Diagnostics and Therapeutics Squadron, Andrews AFB, MD, and rated number one of six squadron commanders in 89th Medical Group. At Ramstein AB, Germany, he was assigned as Deputy Commander, 86th Medical Group. He was instrumental in gaining approval and coordinating medical support of humanitarian airlift operations in Afghanistan.

From 2002-2004 while at Lackland AFB, TX, he was Commander 59th Diagnostics and Therapeutics Group and was personally selected by the Air Force Surgeon General to serve as the Chief of Biomedical Sciences Corps. Assigned to Bolling AFB, DC, in 2005, Jeff served as Chief, Medical Support Policy and Operations Division and Chief, Biomedical Sciences, Corps. And for his final Air Force assignment, he was Deputy Command Surgeon, Air Force Materiel Command and Chief, Biomedical Sciences Corps at Wright-Patterson AFB, OH until his retirement in December 2006.

From 2006 until 2010 he has served in various contractor and senior associate positions with Booz Allen Hamilton Inc. and the Air Force Human Systems Integration office.

His decorations and awards include: Legion of Merit with one oak leaf cluster, Meritorious Service Medal with six oak leaf clusters, Air Force Commendation Medal, USAF Outstanding Aerospace Physiologist of the Year for 1992, the Air Force Research Laboratory Excellence Award for 2006, and the Aerospace Physiology Society's Wiley Post Award (1993), President's Award (1994 & 1999), and Award for Sustained Excellence (2004).

A Fellow of AsMA, he has served the Association in many ways including: Member-at-Large on Council 1997-2005, Member of the Executive Committee 1998-99, Member of the Registration Committee 1993-97, and Chair of the Awards Committee 1999-2001. He has served the Aerospace Physiology Society as Treasurer, President, and as the representative to Council. He has also served as a member of the Aerospace Certification Board for 1990-92. In addition, he is a member of the Association of Military Surgeons of the U.S. and the Aerospace Human Factors Association.

Jeff also holds a private pilot license with 120 flying hours and has over 200 hours in numerous military aircraft.

The Aerospace Medical Association is fortunate to have selected Jeff to lead our home office and association and we all look forward to working with him.

Farewell, but not Goodbye to Dr. Rayman

Now that the succession and executive committees have done their jobs and a new executive director has been chosen, it is time to bid "farewell" to Dr. Rayman. But this won't be "goodbye," since he plans to stay on in the home office to help our new ED, Jeff Sventek, learn the ropes—and there are many ropes to learn. During the 18 years that Dr. Rayman served as ED he has worked with 18 different presidents, executive committees, and councils, and far too many committee chairs to count. And, according to our Policy Compendium (available for download at http://www.asma.org/publications/toc_compendium.php), he has steered us through 7 Special Committee Reports, 27 Resolutions, 15 Position papers, policies, and statements, 39 official letters, and other projects too numerous to mention. He has made sure that our annual meeting remains CME accredited, that our specialty in the AMA is represented, that our annual meeting is planned to the last detail and every one of them has been a success, that our home office is open and available to our members and committees for meetings, and so many other activities large and small that have kept our association moving forward.

And so we say "Farewell and thank you, Dr. Rayman." We look forward to seeing you around the office and the annual meeting looking more relaxed with time to enjoy this association you have maintained so faithfully over the years.

Meetings Calendar

February 23-26, 2010; Space, Propulsion and Energy Sciences International Forum (SPESIF) 2010; Johns Hopkins University, Applied Physics Laboratory, Laurel, MD.

American Red Cross

2010 Blood Drive

For the meeting in Phoenix, AZ, the AsMA Volunteers are once again being encouraged to donate blood. The blood drive will take place as follows:

Wednesday, May 12th
10:00 AM - 4:00 PM
Room TBD

Please sign up to donate blood. For more information, please contact Dr. Matt Hoefer, usbatory@hotmail.com or visit www.asmavolunteers.org.

Thank you for volunteering!

Send information for publication on this page to: **Corporate News**
Aerospace Medical Association
320 S. Henry Street
Alexandria, VA 22314-3579

News of Corporate Members

Aqua Lung/U.S. Divers is Newest Corporate

Aqua Lung/U.S. Divers has become the newest Corporate Member of the Aerospace Medical Association. Aqua Lung has been in business since 1957. In the early years, they were the primary manufacturer and distributor of scuba diving equipment for the worldwide market. Although they continue to hold this position on the recreational side of the business, their military business is growing rapidly. In 1992, they entered the aviation market with the launch of their emergency breathing systems for use as survival equipment for helicopter pilots. In 2008, they launched their man mounted supplemental oxygen system for high altitude helicopter missions.

Aqua Lung International has over 200 employees in the United States and over 500 worldwide, as well as 12 divisions throughout the world. They offer high-quality diving equipment and, for the military, aviation life support equipment, both open and closed circuit diving equipment, and surface, tactical, water rescue, and SAR swimmer equipment. For more information on this company, please visit their website at www.aqualung.com.

Wyle Personnel Participate in ISS Studies

Medical and technical experts at Wyle are assisting two important NASA projects on the International Space Station (ISS). Their efforts will help astronauts cope with effects of long-duration spaceflight similar to what might be experienced in a future mission to Mars. Wyle personnel include Dr. Douglas Ebert, Dr. Hamilton, and Dr. Ashot Sargsyan and sonographers Kathleen Garcia, David Martin, and Suzanne Poston. They are providing ultrasound, telemedicine, cardiovascular, and project management expertise for the project, which will develop a remotely guided ultrasound methodology and evaluate cardiovascular function and adaptation to microgravity.

On Earth, ultrasound scans are typically performed by experienced technicians and interpreted by physicians. In space, it is necessary for crewmembers, who have little or no ultrasound experience, to perform these scans on themselves or on each other. Remote guidance telemedicine techniques used on the ISS allow astronauts to perform these exams in space and send the scans to Earth for interpretation by medical professionals.

The first project uses a Russian occlusion cuff system to acutely alter volume distribution in crewmembers while focused ultrasound measurement techniques are developed. These new techniques will more accurately measure space-induced fluid volume shifts, enhance the diagnostic value of ultrasounds performed in space, and advance telemedicine capabilities. Data will provide insights into the cardiovascular system's response to circulating volume changes and provide important insights into basic cardiovascular research here on Earth, too.

The second project investigates changes in heart size and function following long-duration exposure to microgravity. Blood pressure and electrocardiogram (ECG) readings are evaluated at several time points before, during, and following spaceflight. The study also obtains comprehensive in-flight cardiac imaging data. Images of the heart coupled with electrocardiography and pre- and post-flight magnetic resonance imaging (MRI) provide critical information in establishing a "space normal" pattern for hearts and lets researchers evaluate cardiac function during long duration spaceflight.

For more information on these studies, please see http://www.wylelabs.com/news/2009/11-16-09.html.

Archinoetics Teaches Science to Elementary Students

Archinoetics, in partnership with isisHawaii, has been going to elementary and middle schools around Oahu for the past few years teaching science, technology, engineering, and math (STEM) in an ocean-related context. The classes are part of Project Niu, their educational outreach activity sponsored by NOAA. In November, Archinoetics visited Waiau Elementary School.

—Adapted from http://www.isishawaii.org/PhotoAlbum.aspx?QueryID=2009%20Project%20Niu%20at%20Waiau%20EL and a news item found at http://www.archinoetics.com/news.php.

AdviTech Breaks Ground in Sensory Perception Tech

San Antonio- based AdviTech, Inc., recently leased a high performance T-38 from its owner in Dallas, which is one of only five privately owned military fighter jet aircraft like this in the United States. The aircraft will be used for both testing and marketing of AdviTech's unique motion-related technology. This T-38 recently flew a highly motion provocative test profile that AdviTech executed to further understand the positive impacts of its spatial disorientation (vertigo) and motion sickness technology known as X-Motion™.

X-Motion™ was developed to help maintain the three physiological senses that when mismatched, can cause balance disorders: sight, inner ears, and proprioception (sense of position due mainly to touch). Flying in such a high performance aircraft, AdviTech can duplicate the dangerous disorienting conditions and illusions that confront pilots which very quickly can lead to loss of peak cognitive and motor skill function, expensive equipment and life. Being a dual-use technology, X-Motion™ has been tested in Phase I and Phase II clinical environments funded by National Institute of Health grants, and has shown great promise in restoring quality of life to patients suffering from the debilitation effects of vertigo and motion sickness. In addition to applications in aviation and medical rehabilitation, AdviTech's X-Motion™ has utility in any environment where motion provokes the sensory mismatches between the eyes, inner ears, and touch … from air travel, vehicular travel, and recreation (sport fishing, cruising on ships, virtual gaming).

—Adapted from http://www.sanantoniostartups.com/2009/11/23/2708/.

Sperian Protection Concludes Divestiture of Image Wear

Sperian Protection announced the divestiture of its Image Wear design and marketing clothing business to Cepovett, a work wear and corporate image clothing manufacturer and distributor. This divestiture is in line with Sperian Protection's strategy of focusing on its core business – personal protective equipment. The deal also allows the Group to divest a business that offers little manufacturing, logistics or marketing synergies with its other businesses.

—Adapted from www.sperianprotection.com/pressrelease/Press_release_Image_wear_eng_Nov_09.pdf.

International SOS Partners with Abermed

International SOS, the world's leading provider of integrated medical and security assistance, recently announced that it has entered into a partnership with Abermed, the UK-based provider of occupational health and remote medical services to the energy sector. Abermed has a strong client base operating in the UK and the North Sea energy industry. International SOS has acquired a majority stake in Abermed with the aim of further strengthening its geographic presence and accelerating the globalization of Abermed's specialized products such as hyperbaric medicine, UK-trained rig medics, and occupational health services.

—Taken from http://www.internationalsos.com/en/pressreleases_4031.htm.

ETC Announces Two New Contracts

Environmental Tectonics Corporation's (OTC Bulletin Board: ETCC) ("ETC" or the "Company") Sterilization Systems Group (SSG), a division of ETC's Control Systems Group (CSG), today announced the award of two new contracts for large, industrial sized sterilization systems from previous customers. The combined contract values exceed $700,000. ETC's Sterilization Systems Group provides turnkey steam and Ethylene Oxide sterilizers, services, consulting and software systems to the medical device, pharmaceutical, biotechnology and healthcare industries.

—Taken from http://www.etcusa.com/corp/pressreleases/NR110609.html.

News of Members

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

LCDR Timothy M. Burkhart, MC, USN, was recently promoted to his current rank from lieutenant. He is currently a Flight Surgeon HSM-41/HSL-49/HSMWSP, Coronado, CA.

Focus on Members
Scott Parazynski

Former Astronaut Scott Parazynski, MD has been named Chair-Elect of Challenger Center's Board of Directors. He will assume the role of the Chair of the Board in November 2010, succeeding Former Astronaut William F. Readdy.

A Fellow of AsMA, Parazynski is a physician and physiologist with expertise in human adaptation to stressful environments.

He was selected to NASA's astronaut corps in 1992, and flew five Space Shuttle Missions and conducted seven spacewalks. He has spent more than 8 weeks in space, and 47+ hours outside the vehicle on spacewalks. He has traveled more than 23 million miles in orbit. He is also an accomplished mountaineer, scuba diver, and pilot. Earlier this year he became the first astronaut to climb to the summit of Mt. Everest. He is currently Director of Business Development for Wyle's Integrated Science and Engineering Group based in Houston, TX.

Parazynski received a Bachelor of Science degree in biology from Stanford University, continuing on to graduate with honors from Stanford Medical School. He served his medical internship at the Brigham and Women's Hospital of Harvard Medical School and had completed 22 months of a residency program in emergency medicine in Denver, CO, when he was selected to the astronaut corps.

Using space exploration as a theme and simulations as a vehicle, Challenger Center creates positive educational experiences that raise students' expectations of success, fosters a long-term interest in science, technology, engineering, and mathematics, and inspires students to pursue studies and careers in these areas. To learn more, visit http://www.challenger.org.

Future AsMA Meetings

May 9-13, 2010; Sheraton Downtown Hotel, Phoenix, AZ

May 8-12, 2011; Egan Convention Center, Anchorage, AK

May 13-17, 2012; Altanta Hilton Atlanta, GA

Obituary Listing

We have just learned that Col. Harold L. Bitter, USAF (Ret.), of San Antonio, TX, an AsMA Fellow since 1972 passed away in October 2007.

IAMFSP Scholarship

The International Association of Military Flight Surgeon Pilot (IAMFSP) is pleased to announce a $500.00 (U.S.) scholarship available to a student in the medical sciences for the purpose of attending the May 2010 AsMA Scientific Meeting in Phoenix. Students eligible include Masters, or Doctorate candidates in the medical sciences. The Scholarship is intended to defray the cost of attending the AsMA annual Scientific Meeting. Interested candidates should send a letter describing their interest in the scholarship and why they would be the best candidate (250 words or less).

Please include school status, and interest in aerospace medicine / human flight performance / pilot-physician issues. The scholarship will be presented in person at the Tuesday Night 2010 business meeting of the IAMFSP in Phoenix. Should the primary selectee not be able to attend the AsMA convention, the Scholarship will pass to an alternate who is attending. E-mail letters of application no later than 28 February 2010 to:

IAMFSP Scholarship Fund
CAPT Edwin Park, MC, USN
edpark@ix.netcom.com

Aerospace Medical Association Associate Fellows Group (AFG)

Call for Nominations for Candidates for both the Chair-Elect and Secretary

It's that time of year to **submit nominees** for AFG officers. **Nominations are being sought for Chair-Elect (2010 – 2011) and *Secretary (2010 – 2012)**. *Note: The Secretary and Treasurer positions are 2-year term obligations with biennial elections occurring on alternating years. Nominations are being accepted for Secretary for the period of 2010 – 2012. Nominations for Treasurer will be accepted next year for the period of 2011 – 2013. The Chair-Elect office will remain a 1-year term with an annual election. **Deadline** for the submission of names of nominees is **31 January 2010**.

Please send your nominations to Lance Annicelli and Nereyda Sevilla at: associate-fellows@gmail.com. Nominees will be presented to the AFG Chair for approval prior to publishing for final vote prior to our May 2010 AsMA conference.

CAMA SUNDAY

The Civil Aviation Medical Association, in cooperation with the Airlines Medical Directors Association, present:

CAMA Sunday: May 9, 2010: 8:00AM-Noon
"Risk and Regulation"

Traumatic Brain Injury:
Joseph Sirven, epileptologist, Mayo Clinic
Stroke and Migraine:
Timothy Ingall, cerebrovascular disease, Mayo Clinic
Seizure and Epilepsy:
W. A. Hauser, epidemiology, epilepsy, Columbia University

Expert presentations and panel discussion
Don't miss it!

DONATE TO THE AsMA FOUNDATION

The Foundation supports the field of Aerospace Medicine and the Association through financial support of educational and scientific programs, providing scholarships to members in training, supporting grants for research programs, and other activities. Please visit their website at: http://www.asma.org/asma_foundation/foundation-index.php.

Send checks to:
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