AsMA Exhibits at SpaceCom

Staff of the Aerospace Medical Association manned a booth at SpaceCom in Houston, TX, in November 2015 before the Council and Scientific Program Abstract Review meetings.

AsMA Council Members who met in Houston, TX on November 19, 2015.

Dr. Kris Belland, AsMA President, providing opening remarks during the November 20, 2015, AsMA Scientific Program Committee Abstract Review session in Houston, TX.

Dr. Kris Belland, AsMA President, thanking Dr. Barry Shender, AsMA Scientific Program Committee Chairperson, for an outstanding job leading the AsMA Scientific Program Committee.

Members of the Space Medicine Abstract Review Panel.

AsMA Exhibits at SpaceCom

The Aerospace Medical Association Council and the Scientific Program Committee met in Houston, TX, in November 2015. The Council conducted Association business and the Scientific Program Committee met to review the abstracts submitted for the May 2016 meeting in Atlantic City, NJ.
Dr. Roland Vermeiren, AsMA Vice President for International Services, is Division Director EAF and WAG, and of Dr. John Grubbström, FAI President.

SOUSAFFS Schaefer & Grow Awards

Below are writeups on the winners of the Society of U.S. Air Force Flight Surgeons (SOUSAFFS) Schaefer and Grow Awards. A full list of SOUSAFFS awards winners was printed in the November newsletter.

George E. Schaefer Award

Col. Andrew Marchiando, USAF (Ret.), received the Society of U.S. Air Force Flight Surgeons (SOUSAFFS) George E. Schaefer Award for 2015. The award was presented during the SOUSAFFS luncheon, held May 11, 2015, at the Walt Disney World Dolphin Hotel, Orlando, FL. He was honored for his leadership. He began his career when he assumed command at Whiteman AFB, establishing benchmark programs and twice earning distinction as Air Rescue Service Helicopter Aircrew of the Year. He was moved to Strategic Air Command and then to Air Combat Command to oversee all flight/mission medicine, aeromedical standards, occupational health, and Personnel Reliability Program issues. His vision led to ground-breaking work on hypoxia, decompression sickness, night vision goggles, and the development of what eventually evolved into the Critical Care Aeromedical Transport Team concept.

Throughout his career Col. Marchiando has demonstrated a pattern of dedicated mentorship for junior flight surgeons. He has remained an active, sought-after lecturer and Air Force museum tour guide for all major air shows. He was selected in 2009 to serve as CSAF-directed Color Vision Summit with representatives from all services, the FAA, and allied partner nations. He also revitalized the Team Aerospace Operations Solutions Conference as a leading venue to advance the delivery of aeromedical services across the Air Force. Additionally, he co-chaired and authored the Joint Capabilities Document for Human Performance Enhancement (HPE), the sentinel HPE road-map used by all DoD Services.

Col. Marchiando served as Chief of Aerospace Medicine at Kunsan AB and has commanded aeromedical squadrons at Whiteman AFB, Eglinton AFB, and Luke AFB. His squadrons validated the Small Portable Expeditionary Aeromedical Rapid Response concept and developed fatigue management guidelines for B-2 aircrew. He deployed to Southwest Asia on four separate occasions and served with distinction in joint/coalition capacities as Chief of Aerospace Medicine, Chief of the Professional Staff, an Aeromedical Squadron Commander, a Deputy Group Commander, and an Expeditionary Medical Group Commander.

Most recently, Col. Marchiando has served as Chief of Aerospace Medicine for Air Combat Command, where he led several diverse multidisciplinary teams to get to the root cause of the F-22 hypoxia-like symptoms and On Board Oxygen Breathing System problems. His work has driven new research into high performance aircraft respiratory symptoms and cockpit air quality and to better standardize physiological response protocols for 5th and 6th generation fighter aircraft. He has also been heavily involved with the U-2 community, addressing decompression illness and better understanding standing white matter hyperintense brain lesions to mitigate occupational exposure issues among high altitude aviators and aerospace physiologists. Recently he has supported getting airmen back into the fight sooner after injury by supporting the creation of the Warrior Athlete Center of Excellence and the Elite Performance Initiative Center. Furthermore, with the establishment of 25th AF, he has striven to embed medical operational support with the Intelligence, Surveillance, and Reconnaissance community.

Col. Marchiando is dual board certified in Aerospace and Occupational Medicine and he was inducted as a Fellow in the Aerospace Medical Association in 2014. He has more than 1,750 total flying hours accrued in over 69 aircraft. He has 95 combat and 145 combat support flying hours, and performed aeromedical duties on 22 rescues.

Malcolm Grow Award

Maj. Michael R. Frayser, USAF, MC, was the recipient of the Society of U.S. Air Force Flight Surgeons (SOUSAFFS) Michael Grow Flight Surgeon of the Year Award for 2014. The award was presented during the SOUSAFFS luncheon, held May 11, 2015, at the Walt Disney World Dolphin Hotel, Orlando, FL. He was honored for his outstanding operational support while serving as Group Flight Surgeon and Lead Medical Advisor to the 838th Air Expeditionary Advisory Group, Shindand Air Base, Afghanistan. When that base was closed, he then served in that same position in the 738th Air Expeditionary Group at Kandahar Air Field, Afghanistan. He then served as Wing Surgeon General and Lead Medical Advisor to the Afghan Air Force Surgeon General at Kabul International Airport, Afghanistan, until his tour was completed in December 2014.

AsMA Fellows Announce Scholarship Winner

The AsMA Fellows Scholarship Committee is pleased to announce their selection of the winner of the 2015 scholarship. Babak Alagha, M.D., won the scholarship for his presentation and publication of a manuscript on “Conservative Management of Mechanical Neck Pain in a Helicopter Pilot.” The $2,000 AsMA Fellows Scholarship is funded by the AsMA Foundation and is presented annually to an AsMA member who is a student in an aerospace medicine residency program, graduate program in aerospace medicine (Master or Ph.D.), medical certificate or aerospace diploma course, or in a full time education/training program in the allied fields of nursing, physiology, human factors, psychology, ergonomics, and engineering. Selection criteria include delivering a slide or poster presentation as a first author at the AsMA Annual Scientific Meeting and then submitting a manuscript as first author for publication in AsMA’s Aerospace Medicine & Human Performance Journal based on the same topic and/or material covered in the slide or poster presentation. The winner is selected by the AsMA Fellows Scholarship Committee based on the high scientific value, originality, quality and relevance of the candidates’ presentations and published manuscripts.
As a combat-tested physician Maj. Frayser’s medical expertise was continually tested, first when his quick response was required to treat a coalition member’s gunshot wound in the first several weeks of his arrival, and then during three additional trauma events, ranging from an IED strike on a U.S. and Afghan patrol, a roll-over incident involving Afghan National Security Force personnel, and finally a gun-shot wound to the chest of an Afghan juvenile. Injuries ranged from multiple gunshot wounds, to amputations, concussions, lacerations, and broken bones. Each provided the opportunity to prove Afghan and coalition trauma response and air evacuation capabilities, and in all 14 lives were saved. Maj. Frayser additionally identified gaps in the Group’s Emergency Response Plan and authored policies and procedures for local Mass Casualty Response. He created 24 Mass Casualty response bags, as well as two Casualty Collection Point inventories using materials from retrograde supply, ultimately saving $555K while protecting 308 coalition members. His work tirelessly continued by providing 45 hours of hands-on practical training in Combat Lifesaving Skills to 547 U.S., coalition, and Afghan personnel across the 438th Air Expeditionary Wing, two Afghan Air Force wings, and two forward operating bases.

As an advisor, mentor, and instructor, Maj. Frayser coordinated among Afghan Air Force and coalition flying squadrons and directorates at the operational level. He also ensured the necessary medical logistics planning, communication, infrastructure, and policy and procedure development were in place to implement CASEVAC and Human Remains missions. Personally, he directed a total of 20 U.S. and coalition medics, advisors, and interpreters across 3 wings in the development of Afghan Air Force flight surgeons and medics. Specifically, he orchestrated the first Afghan C-130 casualty evacuation training at three forward operating bases, led the first Mi-17 casualty evacuation training at Shindand Air Base, and conducted the first C-208 casualty evacuation training at an austere forward operating base located near the Pakistan border. His persistence pushed the installation of a litter stanchion system in the Mi-17, which increased its carrying capacity from two to six. Overall, he quadrupled CASEVAC transport capability.

Maj. Frayser directed an air sickness treatment program for pilot trainees and passengers both in flight and through advising Afghan medics, ultimately reducing pilot elimination due to airsickness. He also monitored aircrew physiological responses to frequent high-altitude flights on unpressurized aircraft without supplemental oxygen, while additionally advising crews on reducing injuries due to vibration, extreme temperatures, and ergonomic factors during rotary wing flights. Finally, he identified a flawed aircraft painting process which had been causing hazardous workshop conditions. This action resulted in the creation of new processes which ultimately increased the safety of all Kabul International Airport maintainers. He also developed Afghan policy to ensure a sustainable, responsive healthcare system, impacting the medical care for 352,000 troops nationwide. Finally, he oversaw a $4M clinic expansion at Kandahar and Shindand Air Bases, and coordinated the reallocation of $3M in medical equipment and supplies to increase the Afghan supply stock by 60%.

**New Members**

Bowman, Jason, Cranston, RI
Brinley, Alaina A., Dr., Galveston, TX
Brown, Barbara A., R.N., MSN, M.P.H., Vallejo, CA
Endsley, Mica R., Dr., USAF, Washington, DC
Einslin, Angela S., Dr., Zurich Airport, Switzerland
Garrison, David J., Charlottesville, VA
Gonzalez, Gabriel, Maj., Beale AFB, CA
Hatfield, John M., Lt. Col., USAF, Dayton, OH
Kinard, Jeffrey L., Capt., USAF, FS, APO, AE
Klink, Donna, R.N., Kettering, OH
Larsson, Helen, Ph.D., Huddinge, Sweden
Martin Zona, Denise M., Maj., APO, AE
Mollan, Belinda, R.T., Carterton, Oxfordshire, UK
Orlando, Molly, Portland, ME
Putcha, Paul, Lt. Col., USAF, Wright-Patterson AFB, OH
Rhoden, Diane H., Dr., Orange Park, FL
Romstad, Stale, Dr., Moss, Norway
Rousso, Claudia L., Dr., Delray Beach, FL
Tegern, Mattias, Umea, Sweden
Villarreal, Roque, Dr., College Station, TX
Wilde, Grant, Maj., USAF, Bracknell, Berkshire, UK

**Read Current News Online! The AsMA, Industry, & Member News pages are updated regularly. Check them out!**

**Air Canada Offers Winter Travel Tips**

During the holiday peak travel season in December, Air Canada offered tips to ensure a smooth travel experience on Air Canada, Air Canada Express, and Air Canada rouge flights. For the latest operational updates, customers were invited to visit aircanada.com, follow @AirCanada on Twitter and join Air Canada on Facebook, and sign up for specific flight notification alerts. Additional information on what to expect and do in case of flight disruptions is available at aircanada.com/holidaytraveltips. To see how Air Canada prepares for winter, and what is done behind the scenes to get customers on their way safely during weather disruptions, go to aircanada.com/winterreadiness. Operational news is also available in the Daily Travel Outlook under the Flights section at the bottom of the home page at aircanada.com.

—For more on this, please visit http://aircanada.mediaroom.com/index.php?n=436&item=964.

**AOPA Co-Hosts GA Engine Summit**

The Aircraft Owners and Pilots Association (AOPA) and the Federal Aviation Administration (FAA) recently hosted a 2-day GA Engine Summit attended by representatives of numerous aircraft engine manufacturers and industry associations to discuss ways for the industry and government to work more effectively together. Among the key issues under discussion at the December conference was how to involve the industry sooner in the risk-analysis process that could eventually lead to an airworthiness directive (AD). Another critical topic was finding ways to allow the industry to explore an alternative method of compliance for an AD when it makes sense to do so from both safety and operational perspectives. The meeting, which took place at the FAA’s Engine and Propeller Directorate in Burlington, MA, featured presentations from the FAA, manufacturers, and AOPA on topics including the state of engine safety, the move toward a more streamlined risk-based approach to regulation, and the full scope of the AD process, including how the FAA determines when an AD might be warranted. At the conclusion of the meeting, FAA representatives agreed to involve industry and engine manufacturers in the risk-analysis process as soon as practical, so that identified risks can be most effectively addressed.


**ALPA Commends FAA’s UAS Registration Requirement**

The Air Line Pilots Association, Int’l (ALPA) commended the announcement by the Federal Aviation Administration (FAA) that it will require the registration of unmanned aircraft systems (UAS) as a tool to help ensure that owners and operators fly their aircraft safely in skies they share with airliners carrying passengers and cargo. The FAA’s UAS registration requirement will facilitate the enforcement of regulations and demonstrate to purchasers the responsibility that comes with owning and operating a UAS in the U.S. national airspace. While the registration requirement for UAS is a significant step forward, ALPA believes the rule will be most effective through a mandatory process at the point of sale.


**Baxter’s Oldest Manufacturing Site Celebrates 65 Years**

Baxter’s Cleveland facility is the company’s longest-operating manufacturing site in the United States, starting its initial operation in 1949, and now employing more than 600 local residents. The recipient of multiple quality awards along the way, this site exemplifies the evolution and growth that has
Mayo Clinic Identifies Potential Biomarkers for Bipolar Disorder

Mayo Clinic researchers have discovered a series of proteins that could be diagnostic markers to identify bipolar I disorder. If this discovery sample can be validated through replication, these markers may help as a diagnostic tool for psychiatrists treating mood disorders. The findings appear in the journal Translational Psychiatry. Up to now psychiatrists have relied on observed symptoms and patient assessments based on interviews. That information is then compared to established diagnostic criteria. In contrast to other medical conditions, there is no biological marker in mood disorders in general, and bipolar disorder in particular, to help confirm clinical diagnosis. It is critical to differentiate bipolar disorder from other mood disorders as the treatments differ and a medication suited to one condition may be dangerous to patients with another.

—To read more about this, please see http://www.flysaa.com/us/en/ flyingSAA/News/Global_Traveler_magazine_names_South_African_Airways_as_best_Airline_in_Africa_for_12th_consecutive_year.html.

SAA Named ‘Best Airline in Africa’

South African Airways (SAA), the national flag carrier of South Africa and Africa’s most awarded airline has been, for the 12th consecutive year, honored by Global Traveler Magazine, as “Best Airline in Africa” in the magazine’s annual GT Tested Reader’s survey. The magazine presented the award to Todd Neuman, Vice President, Commercial for South African Airways in North America at a ceremony held on December 8, at the Peninsula Beverly Hills Hotel in Beverly Hills, CA. SAA was recognized by Global Traveler readers for its consistently high service that keeps it in the world-class category and best in the region year after year.

—To read more about this, please see http://www.flysaa.com/us/en/ flyingSAA/News/Global_Traveler_magazine_names_South_African_Airways_as_best_Airline_in_Africa_for_12th_consecutive_year.html.

United Helps Reduce Stress During Holiday Travel

The joyous Christmas season can be stressful. United Airlines enlisted help from some of its furry, four-legged friends on a mission to reduce stress and deliver smiles to anyone who needed one. United Paws, a program designed to deliver smiles to customers, brought professionally trained comfort dogs to airports in Chicago, Cleveland, Denver, Houston, Los Angeles, Newark, and Washington/Dulles. The United Paws crews greeted customers from Dec. 21 through Dec. 23 each day. United introduced comfort dogs during the holiday season last year, and they were very popular with their customers, so they brought them back at more airports in 2015.

—For more on this, please visit http://newsroom.united.com/2015-12-21- When-Holiday-Travel-is-Ruff-United-Paws-Can-Help.

Wyle Named a Military Friendly® Employer

Wyle was featured in the December issue of G.I. Jobs® magazine as one of 2016’s Top 100 Military Friendly® Employers. The company, which also ranked among the top 20 defense industry employers in the Top 100, was recognized with the Military Friendly® Employer designation by Victory Media, publisher of G.I. Jobs® and Military Spouse. Wyle competed for the designation by completing a data-driven survey, independently tested by Ernst & Young, and achieving a benchmark score for programs and policies, such as the strength of its military recruiting efforts, percentage of new hires with prior military service, retention programs for veterans, and company policies on National Guard and Reserve service. The rankings reflect Wyle’s belief that hiring military talent is a smart business decision. Notably, 41% of Wyle’s 4,000 employees are veterans, and 40% of all new hires in 2015 were veterans.

—To learn more, please see http://www.wyle.com/content/NewsDescription.aspx?NewsItem81.
Aerospace Physiology Society Achievement Awards

The Aerospace Physiology Society (AsPS) presents three major achievement awards to recognize individuals who perform extraordinary work within the Aerospace Physiology Community. The nominee must be a member in good standing of both the Aerospace Medical Association (AsMA) and the AsPS. Awards will be presented at the Aerospace Medical Association’s Annual Scientific Meeting during the annual luncheon program. These awards are presented for outstanding achievement in all areas of aerospace physiology: operational support training, research, and leadership. The descriptions of each award are:

**Paul Bert Award**—The Paul Bert Award recognizes outstanding research contributions in aerospace physiology. This award was established in 1989 and was originally given for achievements in operational physiology. It is named in honor of the famous French physiologist, Paul Bert, the “Father of Pressure Physiology.” Nominees will be considered for research covering the previous five year period. Limit the nomination to two or three major research contributions. The Award committee considers unrecognized nominations from the past 3 years, though it is strongly recommended that those nominations be updated annually in writing. Research areas may range from basic science to research in highly applied areas of aerospace physiology. Wyle currently sponsors the Paul Bert Award. For more information and to view a list of past award winners, see the AsPS Paul Bert Award page.

**Wiley Post Award**—The Wiley Post Award recognizes outstanding contributions in direct operational physiology and aeromedical training and education. In 1997, the Wiley Post Award replaced the Paul Bert Award for Operational Physiology. It is named in honor of the aviation pioneer Wiley Post and is presented for exceptional service and achievement in operational physiology, including education and physiological support of Dept. of Defense, FAA, NASA, or civilian aircrew. The Gentex Corp. of Carbondale, PA, sponsors the Wiley Post Award with an honorarium, a plaque, and an edition of Paul Bert’s classic work, “Barometric Pressure.” The Award committee considers unrecognized nominations from the past 3 years, though it is strongly recommended that nominations be updated annually in writing. For more information and to view a list of past award winners, see the AsPS Wiley Post Award page.

**AsPS Partnership in Education Award**—The Partner in Education Award is awarded to a teacher in a school district of the host city for the current year’s AsMA Annual Scientific Meeting. Nominations are solicited from the local school districts and the winner is selected by the Partnership In Education Award Committee. The award was established by the Aerospace Medical Association to encourage the study, improve the practice, and elevate the standards of excellence in aerospace physiology.

The Award committee considers unrecognized nominations from the past 3 years, though it is strongly recommended that nominations be updated annually in writing. For more information and to view a list of past award winners, see the AsPS Wiley Post Award page.

Aerospace Physiology Board Certification Announcement

The Executive Council of the Aerospace Medical Association (AsMA), acting upon recommendations of the Aerospace Physiology Certification Board, grants certification in aerospace physiology. Board certification in aerospace physiology was established by the Aerospace Medical Association to encourage the study, improve the practice, and elevate the standards of excellence in aerospace physiology.

The Board Certification provides an avenue for professional and peer recognition in aerospace medicine, and is a worthy goal for members to attain. This year’s certification examination will be offered at the 87th Annual Scientific Meeting of the Aerospace Medical Association on Sunday, 24 April 2016, in Atlantic City, NJ. Board certification is for professionals with an abiding interest and demonstrated productivity in the field of aerospace physiology.

Applications must possess, as a minimum, a baccalaureate degree either in physiology or a closely related science (including as a minimum at least 18 hours of biological sciences). A history of significant contributions to aerospace physiology is also required. Applicants should have 5 years of active professional experience in an aeromedical field. Exceptional applicants can request a waiver of any and all of the aforementioned eligibility requirements by submitting a letter to the Admissions Committee Chair. This letter shall specify experience, knowledge, education, or other facets which alleviate the need to meet eligibility requirements.

The 5-hour exam contains questions covering various areas relevant to aerospace physiology, including but not limited to general human physiology, acceleration physiology, decompression physiology, impact, hypoxia, vibration and noise, operational aspects, space physiology, and spatial orientation.

Applications and letters of reference are due to the Admissions Committee no later than Sunday, 14 February 2016. Applicants should contact the Admissions Chair for an application form (available in English only). Applicants must also submit a suitable digital portrait photograph (5 x 7), a short professional biography of less than 300 words, two professional letters of recommendation submitted directly to the Board, and a one-time, non-refundable Application Fee of $25 (U.S.). A non-refundable $75 Examination Fee is due prior to the exam. In addition, a $50 Certification Fee is payable prior to sitting for the examination that is refundable if not certified. Make checks payable to the Aerospace Physiology Certification Board. Applicants must submit documents to the Admissions Chair in a digital format: MSWord compatible for text documents and high-resolution JPEG for graphics/photos.

Applications for Aerospace Physiology Board Certification are available from the Admissions Committee Chair:

NATHAN B. MAERTENS, Maj, USAF, BSC, CAaP
Aerospace & Operational Physiology Flight Commander
21st Aerospace Medicine Squadron
799 Vincent St
Peterson AFB, CA 80914
Email: nathan.maertens@us.af.mil
Comm: (719) 556-7653
Deadline for Application: 14 February 2016

Aerospace Physiology Society Annual Scientific Meetings

Future AsMA Annual Scientific Meetings

April 24-28, 2016: Harrah’s Resort; Atlantic City, NJ
April 29-May 4, 2017: Sheraton Denver Downtown; Denver, CO
May 6-10, 2018; Hilton Anatole Hotel; Dallas, TX