

# President's Page

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

--Robert Frost

In last month's President's Page I introduced our international family and highlighted the important role the Wing plays to bring us all together. This month I will start by sharing the building blocks of our organization and the first group will be our Affiliated Organizations.

Affiliated Organizations have similar objectives and purposes to those of the Aerospace Medical Association. They support these purposes through local meetings, acquaintanceship, and discussion by the members of matters relating to aviation, space, or undersea medicine, or their allied sciences. They increase the value of our Association to their members, and help maintain and increase membership. There is no minimum number or membership requirement to become an affiliated organization.

Listed below are the AsMA Affiliated Organizations: Aerospace Medical Association of Korea, Aerospace Medical Association of Taiwan, Aerospace Medical Association of the Philippines, Aerospace Medical Student & Resident Organization (AMSRO), Alliance of Air National Guard Flight Surgeons, Association of Aviation Medical Examiners, UK, Association of Aviation, Space, Naval, Extreme & Environmental Medical of Russia, Association of USAF Reserve Flight Surgeons, Australasian Society of Aerospace Medicine, Aviation Medical Society of New Zealand, Brazilian Aerospace Medical Society, Canadian Aerospace Medicine and Aeromedical Transport Association, Civil Aviation Medical Association, Commission Internationale Medico-Physiologique, Corporate and Sustaining Membership, Danish Aviation and Naval Medical Association, European Society of Aerospace Medicine, French Aerospace Medical Association, German Society of Aviation and Space Medicine, Greek Aerospace Medical Association, Hellenic Aerospace Medical Society, Hungarian Association of Aeromedical Examiners, Iberoamerican Association of Aerospace Medicine, International Association of Aerospace Dentistry, Israeli Society of Aerospace Medicine, Italian Aviation and Space Medicine Association, Japan Society of Aerospace and Environmental Medicine, Middle Eastern Society of Aerospace Medicine, Norwegian Association of Aviation Medicine, Romanian Society of Aerospace Medicine, Royal Netherlands Association for Aviation Medicine, SAFE Association, Slovenian Aerospace Medical Association, Society of NASA Flight Surgeons, South African Aerospace Medical Society, Space Dermatology Foundation, Spanish Society of Aerospace Medicine, Swedish AeroNautical Medical Association, and Undersea & Hyperbaric Medicine Society.



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

As you can see, the diversity of these international organizations that have chosen to be a part of AsMA is truly remarkable. Our Guiding Principles:

- Be the internationally recognized authority in aerospace medicine.
- Be an advocate for the advancement of aerospace medicine.
- Provide value-added services to all members.
- Provide a forum to integrate all of the aerospace medicine disciplines.
- Facilitate members' contributions to the field and the organization.
- Provide the forum for our Affiliated Organizations to come together and share their ideas.

If you are a member of any of these organizations I ask that you reach out to your associates who are not yet members and educate them on the benefits of joining your organization, as well as AsMA. By doing so, you will facilitate the continued growth of our organization and increase the diversity and opportunity to contribute to the world knowledge of Aerospace Medicine.

Our 2012 Annual Scientific Meeting in Atlanta will be here before we know it. Your Executive Committee will be conducting a site visit in August to the Hilton Atlanta Hotel to verify that the venues will meet our needs. The theme of our meeting will be "Evolving Travel Medicine Issues: A Global Concern."

With all the recent natural disasters, such as earthquakes, volcano eruptions, tsunamis, extreme weather events, and emerging infectious diseases, what better place to discuss these issues than in the city that is home to the Centers for Disease Control and Prevention? I look forward to seeing the diversity of expert presentations that will enhance the world's knowledge of "Evolving Travel Medicine Issues."

If you have any questions, concerns, or suggestions, you can reach me at [president@asma.org](mailto:president@asma.org) or call me at 786-338-8777.

# Association News

## Anzalone Installed as President; Merchant Becomes President-Elect of AsMA

**Fanancy Louis Anzalone, M.D., M.P.H., C.P.E., FAsMA**, was installed as President of the Aerospace Medical Association during Honors Night ceremonies of the AsMA 82nd Annual Scientific Meeting in Anchorage, AK. Dr. Anzalone is currently Medical Director, American Airlines Medical Department, Miami International Airport. [A full biography was printed last year (ASEM 2010; 81:803) and is available on the journal page of our website.] The theme for Dr. Anzalone's presidency will be AsMA as Family.

**P. Glenn Merchant, M.D., M.P.H. & T.M., FAsMA**, was elected to the office of President-Elect of the Aerospace Medical Association at their Annual Business Meeting, May 9, 2011, Anchorage Hilton Hotel, Anchorage, AK. He will automatically succeed to the presidency in 2012 at the AsMA meeting in Atlanta, GA. Dr. Merchant recently joined the American Board of Preventive Medicine as Executive Director following 36 years of Navy and Marine Corps service.

Dr. Merchant has been active in Aerospace and Preventive Medicine for more than 25 years. Dr. Merchant entered the Medical University of South Carolina in 1983 following 8 years of active and reserve service in the Marine Corps as a Naval Aviator. He was designated a Naval Flight Surgeon in 1988 and completed his Residency in Aerospace Medicine in 1994. Some of his more interesting Flight Surgeon tours included serving with Marine Aircraft Group 40 during Desert Storm and as the first Senior Medical Officer of the USS *John C. Stennis*, a nuclear-powered aircraft carrier.



Dr. Merchant has been active in national medical organizations since medical school, serving as Trustee and Chair of the American Board of Preventive Medicine, member of the ACGME's Preventive Medicine Residency Review Committee, and member of the American Board of Medical Specialties Board of Directors. For the Aerospace Medical Association, he has served as Membership Chair, Scientific Program Committee Chair, a member of Council, and most recently as Treasurer. He has represented both the Navy and AsMA in the AMA House of Delegates since 1995.

An active pilot, Dr. Merchant earned his first pilot certificate while still in college. During his Marine Corps service, he had the unique opportunity to fly the AV-8A Harrier, the first operational V/STOL aircraft. Most recently he earned his glider rating to add to his other FAA ratings.

### Other AsMA Elected Officers:

The newly elected Vice Presidents are:

**Mark Campbell, M.D., and Charles Fisher, M.D., M.P.H.**, while **Philip J. Scarpa, Jr., M.D., M.S.**, and **Susan E. Northrup, M.D., M.P.H.**, continue as VPs. The incoming Secretary is **Estrella Forster, Ph.D.**, and the Treasurer is **Hernando Ortega, M.D., M.P.H.** The elected members at large with terms through 2014 are: **Richard Beane, M.D., M.P.H.**, **Joseph Dervay, M.D., M.P.H.**, **M.M.S., F.A.C.E.P.**, **Margaret Matarese, M.D., M.P.H.**, and **Justin Woodson, M.D.** In addition, **Jan Stepanek, M.D.**, was elected to fill the member-at-large seat vacated when Dr. Fisher was elected Vice President. **Jeffrey Sventek** continues as Executive Director.

### AsMA Council Meeting Highlights: May 8 and 11, 2011, Dena'ina Convention Center, Anchorage, AK

*(Complete minutes with attachments are available from AsMA home office.)*

During the Sunday Council meeting of AsMA on May 8, 2011, we learned that two longtime members were retiring from Council this year: Royce Moser, who was Parliamentarian for 15 years, and Dan Callan, who has served in a number of roles within AsMA and on Council for 25 years. Dr. Robert Orford is taking over as Parliamentarian.

Dr. Sides thanked the Executive Committee for their work over the past year. She presented a summary of the past year's activities, tactical and strategic focus, and future direction for the Association.

Committee activities are now aligned with the Association goals and objectives and reported via a standardized Action Plan format. This shows the work of the committees throughout the year and what has been accomplished and what remains to be done.

The survey of AsMA members was completed. This provided great insight into perceived value of membership. Nine initiatives were identified from survey results and have been assigned to the appropriate committees for action, including: develop a clear path for advancement in AsMA; define the future direction of AsMA through Long Range Planning; improve the relevance of the journal to clinical practice [Ed Note: Clinicians are encouraged to write articles for the journal in order to increase the relevance to their practice]; increase the focus on Human Performance; increase the operational relevance of the scientific meeting; improve the web page functionality; investigate paying dues for constituent organizations along with AsMA dues; improve the CME/MOC processes.

In other reports we learned that the financial health of the Association is improving.

The AsMA web site needs many improve-

ments. Since monies are not available, the Executive Committee approved a capital campaign to raise the funds and we are working with a legal adviser and the AsMA Foundation to establish a fund.

One of the goals has been to strengthen international relationships and membership.

Action is under way to make the ad hoc Long Range Planning Committee a standing committee again, as it was until 2000, when it was disbanded because it was felt that its duties were being performed by ExCom.

The first version of the Policies and Procedures Manual has been completed, with special thanks to Dr. Lischak and the Executive Director. They separated out the true bylaws issues from Policies and Procedures "corporate knowledge" issues. The Policies and Procedures Manual serves as documentation and education regarding the activities of the various committees.

With regard to increasing the focus on Human Performance issues, a working group was established under the leadership of LCDR Chris Foster. Initial contact with Aerospace Physiology Society, Aerospace Human Factors Association, and Life Sciences and Biomedical Engineering Branch was made to discuss Human Systems Integration and Human Performance alignment within Aerospace Medical Association.

During his report, the Editor, Fred Bonato, noted that Sarah Pierce-Rubio will be retiring as Assistant to the Editor after 15 years with AsMA. A search is under way for her replacement.

On Wednesday, May 11, when the joint Council convened, a motion was made, seconded, and approved to certify the following five examinees for certification in Aerospace Physiology: LT Heath M. Clifford, USN; LCDR Nick Anthony DiMaso, USN; LCDR Michael S. Kavanaugh, USN; Capt. Matthew T. Taranto, USAF; and LT Tim Welsh, USN.

The Council Representative to the Aerospace Physiology Certification Board will be **Vince Musashe, Lt. Col. Brian Musselman** will become the Chair of the Aerospace Physiology Certification Board.

At the Business Meeting the Membership passed the Bylaws change allowing the use of electronic media to review and approve resolutions. The ED will develop an electronic forum process to allow membership to easily review and comment on draft resolutions.

Dr. Sides "passed the gavel" to Dr. Anzalone.

The next meeting will be held in Alexandria on November 16, 2011, just prior to the Scientific Program Committee meeting on November 17 and 18, 2011.

This is only a brief synopsis of reports given during the Council meetings. It should be noted that many committees have actively organized panel presentations for the annual meeting. A number of new committee chairs were appointed—please check the website under Members Only>Committees for details.

See *COUNCIL*, p. 847.

# Minutes of the Aerospace Medical Association 82nd Annual Business Meeting



Marian Sides



Jeff Sventek

- 1. Call to Order (Sides):** Dr. Sides called the meeting to order at 12:10 PM (Executive Director confirmed a quorum was present).
- 2. Recognition of Past Presidents and Retiring Parliamentarian:** Dr. Sides recognized all Past AsMA Presidents in attendance. She also recognized Dr. Royce Moser for his many years as AsMA Parliamentarian. Dr. Moser will be replaced by Dr. Robert Orford as AsMA Parliamentarian.
- 3. In Memoriam:** A moment of silence was given in memoriam to members who have passed away during the preceding year.
- 4. Report of the President:** Dr. Sides thanked all those who supported her during her year as President and gave a brief overview of accomplishments. She cited success aligning the activities of Committees and Constituent Organizations with the Association's goals and objectives, reporting their activities via a standardized Action Plan format. Dr. Sides also reported the completion of a Membership survey that provided great insight into the members' perceived value of belonging to AsMA. Members' responses translated into nine initiatives that were tasked to the appropriate committees.

#### 5. Report of the Executive Director (Sventek):

Mr. President, officers, and members of AsMA, it is my pleasure to report that the previous year was very active and successful. Much of the success is due to the incredible spirit of volunteerism across the Association. Thank you for your continued strong support. I'd also like to thank the outstanding Home Office staff. They work hard to provide outstanding customer service and administrative support to our nearly 3,000 members every day.

I am pleased to announce that this year's meeting will be a successful one for the Association. As of this morning, we have registered a total of 1,275 attendees for the meeting. Of that total, 1,113 were registered in advance of the meeting and 162 attendees registered here on site. Some of you may remember the long lines and significant waits experienced during the on-site registration last year in Phoenix. To reduce the lines and wait times, we opened advanced registration in January 2011 and left it open all the way up to this meeting. The new registration process allowed for on-line registration and payment and resulted in no lines and essentially no waiting for those that registered on-site. I am very pleased with the results.

There are 31 companies exhibiting with us this year using 37 exhibits booth spaces. We very much appreciate our exhibitors and corporate members. They provide our attendees with great insight into the latest technologies and processes to improve the delivery of Aerospace Medicine. We held the AsMA Welcome Reception in the Exhibit Hall this year and I've received very positive comments for that event. We plan to continue this process next year and will make some logistical adjustments to reduce the lines for drinks and food.

Finally, I am required to report that the Aerospace Medical Association experienced a financial loss in 2010. I will leave the details to our Treasurer to explain but on December 31, 2010, the Aerospace Medicine Association reported a loss of \$134,108. This represents a significant improvement over the 2009 reported loss, but we must continue to find ways to improve the Association's financial status.

**6. Report of the AsMA Foundation (Vanderploeg):** Dr. Vanderploeg reported total assets for the Foundation at \$114,000. The Foundation funds the Fellows Group scholarship through a committee led by Dr. Melchor Antuñano and the 2010 winner of the \$1,500.00 scholarship was Dr. Andrea Hanson of Seattle, WA. The Foundation's Board of Directors met on Sunday, May 8, 2011 and elected one new board member – Dr. Melchor Antuñano. The Foundation Board of Directors approved the AsMA Executive Director position as a standing member of

the Board of Directors. Dr. Vanderploeg encouraged all to consider donating to the Foundation.

#### 7. GOVERNANCE (Sides)

##### • Committees

o **Nominating (Bellenkes):** Dr. Bellenkes read the proposed slate of officers. A motion to approve the slate of new officers passed: President-elect: P. Glenn Merchant; Vice-Presidents: Mark Campbell and Charles Fisher; Secretary – Estrella Forster; Treasurer – Hernando Ortega; Members-at-Large – 2014: Richard Beane, Joseph Dervay, Margaret Matarese, Justin Woodson. In addition, Jan Stepanek will replace Charles Fisher and serve his remaining two years on the Council.

o **Bylaws (Lischak):** Dr. Lischak reported the proposed changes to the Bylaws were published in the March issue of *Aviation, Space, and Environmental Medicine*, pp. 402-405, and on the AsMA website. Each proposed change was presented, discussed and voted upon by the members. All proposed changes were passed with no abstentions.

¶ **Articles of Incorporation (Sventek):** The Executive Director reported the proposed changes to the AsMA Articles of Incorporation were published in the February issue of *Aviation, Space, and Environmental Medicine*, p. 156-157 & 159. The proposed Articles of Incorporation changes are designed to facilitate application for IRS 501(c)(3) status and to change AsMA's incorporation from the District of Columbia to Virginia. The changes were presented, discussed, and voted upon. All proposed changes were passed with no abstentions.

o **Finance (Merchant):** Dr. Merchant explained the multiple factors that resulted in the \$134,108 loss for the Association in 2010. This represents a significant improvement of the losses experienced in 2009. The loss includes \$62,695 of depreciation expenses over which the Association has no control. Of the remaining \$71,413 in losses, most of that is money received but is accounted for as Deferred Revenue. Dr. Merchant congratulated the Home Office staff for reducing operating expenses by more than \$80,000 in 2010.

#### 8. REPRESENTATION AND ADVOCACY (Scarpa)

##### • Committees

o **Resolutions (DeJohn):** Resolution on Aircrew Fatigue Countermeasures was presented.

¶ **In-flight In-Cockpit Napping:** Therefore be it resolved that the Aerospace Medical Association strongly recommends that regulatory agencies, in consultation with aerospace medicine and fatigue experts, establish policies and procedures to ensure adequate preflight crew rest and criteria for use of in-flight, in-cockpit napping when safe to do so, during extended flight operations, to avoid fatigue and enhance aircrew performance.

- A motion was made and carried (with 7 abstentions) to approve the resolution. It now becomes AsMA policy and will be placed on our website and sent to appropriate outside organizations.

o **Air Transport Medicine (Hudson):** There were no action items at this time. During 2010 the committee continued to focus on cabin air contamination, cabin crew medical fitness, and reviewed the current state of science on Deep Vein Thrombosis with possibility of updating the position paper on DVT. Committee is sponsoring two panels at the 2011 meeting: Cabin Air Quality and the Future of Airline Medical Departments.

o **Communications (Dervay):** Dr. DeVoll reported for Dr. Dervay. There were no open action items. He presented an exciting opportunity to develop an aerospace medical forum on the internet that would allow the public to ask pertinent aerospace medicine questions and receive science-based answers from aerospace medicine experts. A similar forum board exists for the scuba community and is very active. The committee will continue to review the legal and technical requirements for such a forum and report back to Council.

#### 9. EDUCATION AND RESEARCH (Webb)

##### • Committees

o **Aerospace Human Factors (White):** Three panels were sponsored at this meeting. Planning has now begun for panels at the 2012 meeting in Atlanta.

o **Aviation Safety (Cimrmanic):** Two panels were sponsored at this meeting. The committee worked with the Air Transport Medicine Committee to develop AsMA's letter to the editor of the *New England Journal of Medicine* on medical professionals responding to in-flight medical emergencies. Planning has begun for panels at the 2012 meeting in Atlanta.

o **Education and Training (Boudreau):** The "This is Aerospace Medicine" slideshow was approved and is now posted on the AsMA

See MINUTES, p. 847

# Opening Ceremonies--Anchorage 2011



**OPENING CEREMONIES--**(Top left) The Air Force Band of the Pacific plays as members assemble at the Dena'ina Convention Center. (Left) The Elmendorf Air Force Base Honor Guard presents the colors. In addition, John Temor sang the National Anthem. Dan Sullivan, Mayor of Anchorage, welcomed our conference--the first one booked into the Dena'ina. (Above left) Dr. Petra Illig, Arrangements Chair, welcomes the crowd (above) to Anchorage. (Above Right) Dr. Pete Mapes, Scientific Program Chair, memorializes the event from the stage.

## RECEPTIONS, RECEPTIONS, RECEPTIONS



**WELCOME RECEPTION--**Sponsored by Mayo Clinic.



**ASSOCIATE FELLOWS/FELLOWS RECEPTION--**Sponsored by Wyle.



**POSTERS--**Michael Gallagher, Univ. of Calgary, strides though the poster sessions.



**HOME OFFICE STAFF--**Gisselle Vargas, Gloria Carter, Sheryl Kildall, and Pam Day.



**RECEPTION TO HONOR INTERNATIONAL MEMBERS--**Sponsored by ETC.



**PRESIDENT'S RECEPTION--**Sponsored by Harvey Watt & Co.

For more Annual Meeting photos, check out the photo galleries in the Members Home section of our web-site at [www.asma.org](http://www.asma.org).  
All photos by Pamela C. Day.

# Honors Night Reception and Banquet

All Photos by Pamela C. Day



**PRESIDENT'S CITATION**--AsMA president, Marian Sides, Ph.D., (right) presented a citation to Royce Moser, M.D., (left) Parliamentarian for AsMA for 15 years.



**HONORS NIGHT ENTERTAINMENT**--(Top) The Imamsuat Native Dance Group provided entertainment before the Honors Night ceremonies escorting us in to the dining hall. (Above) Finlay's Black & Tan played music for the After Party.



**PAST PRESIDENT'S PLAQUE**--Incoming President, Dr. Fanancy Anzalone (left), presents Dr. Marian Sides with the Past President's Plaque.



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1. **MOHLER ENDOWED SCHOLARSHIP**--George K. Anderson, M.D., (left) Chair of the Fellows Group, awards Charles Mathers, M.D., with the scholarship provided by the Fellows Group.
2. **A TOAST TO BROOKS**--Maj.Gen Tom Travis, USAF, MC, provides a toast to the closing of the USAF School of Aerospace Medicine at Brooks AFB, TX. The school was established in 1926.
3. **HONORS NIGHT RECEPTION**--RAMS.
4. **HONORS NIGHT RECEPTION**--Nurses and Les Sherman of Impact Instrumentation.



**PAST PRESIDENT'S PIN**--Brenda Wolf (left) "pins" her mother, Dr. Marian Sides, with the AsMA President's pin.

# AEROSPACE MEDICAL ASSOCIATION HONORS NIGHT AWARDS ANCHORAGE, AK, MAY 12, 2011

Marian B. Sides, Ph.D., 2010-2011 President of the Aerospace Medical Association, presented 17 awards to outstanding physicians, researchers, and nurses during the Honors Night ceremonies at the 82nd Annual Scientific Meeting, May 12, 2011, at the Anchorage Hilton Hotel, Anchorage, AK. Dwight Holland, M.D., Ph.D., the Chair of the Awards Committee (photo at right), read the citations. The names of the awards' sponsors and representatives, when present, are printed in parentheses.

Photo not available: BOOTHBY-EDWARDS AWARD to **Prof. Michael Bagshaw** (Robin Alston and Sean Daigre represented Harvey W. Watt & Company).

All photos by Pamela C. Day.



**LOUIS H. BAUER FOUNDER'S AWARD**  
**Peter B. Mapes, M.D., M.P.H.**  
(Clayton Cowl, M.D., Mayo Clinic)



**JOHN ERNSTING AWARD**  
**James T. Webb, Ph.D.**  
(George K. Anderson, M.D., Environmental Tectonics Corporation)



**KENT K. GILLINGHAM AWARD**  
**Malcolm Cohen, Ph.D.**  
(Wolfgang Lindlbauer, AMST)



**WON CHUEL KAY AWARD**  
**Jarnail Singh, M.D.**  
(Dr. Tae Young Jang, Aerospace Medical Association of Korea)



JOE KERWIN AWARD  
**John Charles, Ph.D.**  
 (Genie Bopp, Wyle)



MARY T. KLINKER AWARD  
**Nora Taylor, B.S.N.**  
 (Les Sherman, Impact Instrumentation)



SIDNEY D. LEVERETT, JR., ENVIRONMENTAL SCIENCE AWARD  
**David J. Tanzer, M.D.**  
 (George K. Anderson, M.D., Environmental Tectonics Corp.)



ERIC LJLJENCRA NTZ AWARD  
**K. Jeffrey Myers, M.D.**  
 (Russell B. Rayman, M.D., Aerospace Medical, PLC)



RAYMOND F. LONGACRE AWARD  
**Scott A. Shappell, Ph.D. (David Schroeder accepting)**  
 (Jeffrey Sventek representing Genevolve Vision Diagnostics)



THEODORE C. LYSTER AWARD  
**Gary Gray, M.D., Ph.D.**  
 (Guy Banta, Eagle Applied Sciences)



MARIE MARVINGT AWARD  
**Erich Roedig, Dr.med.**

(Alain Martin St.Laurent, French Aerospace Medical Association)



HARRY G. MOSELEY AWARD  
**R. Andrew McKinley, Ph.D.**

(Jeffrey Sventek representing Lockheed Martin Corporation)



JOHN PAUL STAPP AWARD  
**Joseph A. Pelletiere, Ph.D. (William Albery accepting)**

(George K. Anderson, M.D., Environmental Tectonics Corp.)



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

(David Millett, Civil Aviation Medical Association)



ARNOLD D. TUTTLE AWARD  
**Bhupinder Singh, M.D., Dip.Av.Med.**  
 (Vernon McDonald, Ph.D., Wyle)



JULIAN E. WARD MEMORIAL AWARD  
**Kathryn Hughes, M.D., M.P.H., Dip.Av.Med.**  
 (Col. Timothy Robinette, USAF, MC,  
 Society of USAF Flight Surgeons)



*MINUTES, from p. 841.*

website. E&T Committee continues to work with the American Society of Aerospace Medicine Specialists to improve Maintenance of Certification and Continuing Medical Education offerings for the Association members.

o History and Archives (Mohler): Dr. Webb reported for Dr. Mohler. Dr. Jennings was thanked for providing historical movies for our annual scientific meetings. The committee is working with the AsMA Home Office to establish an Aerospace Medicine archives.

o Science and Technology (Shender): One panel was sponsored or co-sponsored at this meeting. The committee has published 110 Science and Technology Watch columns in the journal. A contract with IntelliQuest Media was approved and the firm is at this meeting recording the audio of every session. Authors are required to upload their PowerPoint presentations to the IntelliQuest Media website so the company can match the presentations with the recorded audio. IntelliQuest Media is offering DVDs, CDs, and MP3s of the meeting proceedings for sale.

**10. MEMBER SERVICES (Northrup)**

- Committees
  - o Awards (Holland): Awards will be presented at Honors Night.

- o Corporate and Sustaining (DeBois): There are 42 members. The Corporate Forum is being held in conjunction with the Annual Scientific Meeting again this year in an effort to broaden the audience.
- o Membership (Ortega): Membership is currently at 2,628, a slight decrease from 2010. The Committee conducted a membership survey to evaluate membership trends. The survey provided rich data for analyzing our member's perceived value of belonging to AsMA. Action items were developed from the survey and have been assigned to the appropriate committees for resolution.

**11. INTERNATIONAL SERVICES (Singh)**

- Committee
  - o International Activities (Hardicsay): The committee reported on the activities of a working group to evaluate the possibility of a joint AsMA-ESAM scientific meeting in Europe. The working group held a conference call in December and decided to focus on collecting data on a possible European meeting in 2018.

**12. Unfinished and New Business: None**

**13. Adjourn:** The meeting was adjourned at 1:50 PM.

Respectfully submitted,  
**Jeffrey C. Sventek, M.S., CASp, Executive Director**  
**Arleen Saenger, M.D., M.P.H., Secretary**

*COUNCIL, from p. 840.*

The following are the Constituent Organizations' Council Representatives:

- Aerospace Human Factors Association – Dwight Holland, M.D., Ph.D.
- Aerospace Nursing Society – Lt. Col. Eleanor Carolyn Jarrett-USAF, NC
- Aerospace Physiology Society – Vincent W. Musashe
- Airlines Medical Directors Association – Gordon S. Landsman, M.D.
- American Society of Aerospace Medicine Specialists – Joseph F. McKeon, M.D., M.P.H.
- International Association of Military Flight Surgeon Pilots – Lex Brown, M.D., M.P.H.
- Life Science & Biomedical Engineering Branch – Lloyd Tripp, M.A., Ph.D.
- Society of United States Air Force Flight Surgeons – Timothy Robinette, M.D., M.P.H.
- Society of United States Naval Flight Surgeons – Kris M. Belland, D.O.
- Space Medicine Association – Volker R. Damann, M.D.
- United States Army Aviation Medical Association – Stephen A. Bernstein, M.D.
- Fellows – Peter B. Mapes, M.D., M.P.H.
- Associate Fellows – Lance Annicelli
- Aerospace Medicine Student/Resident

**Organization – Alex Garbino**  
**Parliamentarian – Robert Orford, M.D., M.P.H.**  
**ACPM Regent – Mary A. Anderson, M.D., M.P.H., FACPM**

The following are the Constituent Organizations' Nominating Committee Representatives:

- Aerospace Human Factors Association – Carla Hackworth
- Aerospace Nursing Society – Nora Taylor
- Aerospace Physiology Society – Thomas Wheaton
- Airlines Medical Directors Association – Brinio Veldhuijzen VanZanten
- American Society of Aerospace Medicine Specialists – Daniel A. Shoor
- International Association of Military Flight Surgeon Pilots – Kathy Hughes
- Life Science & Biomedical Engineering Branch – Deborah J. White
- Society of United States Air Force Flight Surgeons – Devin P. Beckstrand
- Society of United States Naval Flight Surgeons – Louis Gilleran
- Space Medicine Association – Denise L. Baisden
- United States Army Aviation Medical Association – Justin Woodson

**CAMA Annual Scientific Meeting  
Tucson, Arizona  
October 6-8, 2011**

“Cognition, Sleep Disorders and Fatigue in Aviation:  
A Comprehensive View”

Superb Faculty  
AME Seminar Credit

Inquiries welcome:  
david.millett@yahoo.com



**RAM BOWL**

This year's RAM Bowl was held on Tuesday, May 10, in Anchorage, AK. This is the fourth year it has been held and the second year it was sponsored by the American Society of Aerospace Medicine Specialists (ASAMS).

(Above) Al Parmet (left), RAM Bowl MC, stands with Susan Northrup (right), President of ASAMS, the sponsors.

(Left) In a come-from-behind victory, Air Force One was the winning team and holding the trophy up high are: Lt. Col. John Cotton, Maj. Dan Murray, Lt. Col. David Trant, Maj. Geoffrey Ewing, Lt. Col. Chris Walker. Their coach, Dr. Rhodes, stands on the right.



**57th Bauer Lecture:  
"Starvation, Suffocation, and Madness:  
Lessons Learned from Biosphere 2 for Life  
on Mars and Long-Duration Spaceflight"**

Jane Poynter delivered the 57th Louis H. Bauer Lecture on May 9, 2011, during Opening Ceremonies of the 82nd Annual AsMA Scientific Meeting in Anchorage, AK. Ms. Poynter was one of the original inhabitants of Biosphere 2. The project began in 1987 and habitation took place from 1991 to 1994.

Ms. Poynter explained that Biosphere 1 is Earth—it is a bioregenerative life support system; totally recycling; and driven by life. Biosphere 2 was an attempt to duplicate this in miniature covering 3.14 acres. The structure was materially enclosed and energetically open. They collected 3800 species from around the world to propagate within Biosphere 2. There were engineering challenges: it was made of glass & steel, located in desert, and sealed like an aquarium. Plants provided the oxygen and water filtration necessary to keep the ecosystem going. They recycled water from plant condensate.

The "training", i.e., selection, was similar to that for astronauts and explorers. For Ms. Poynter this included 1 year sailing on a research boat and 1 year in the Outback of Australia learning survival skills.

Food was probably the primary focus of the mission, from gathering the species to be included, to planting, growing, harvesting, cooking, and eating. It took 4 months to make a pizza because they had to grow everything, from the wheat for flour to the goats for cheese. It was classic organic farming. In Biosphere 2 the first crew grew 85% of their food (the second crew grew 100%). The food provided 100% of the amino acids, minerals and vitamins, but they did have to supplement B12 and D. It was a high nutrient but low calorie diet. They were able to grow a great diversity of food, but not in high quantities, esp. calorically. They became orange from eating so many sweet potatoes. They did prove that yo-yo dieting is harmful. They were always hungry and had food fantasies and were obsessed with food.

They expected to see physiological issues like infection, allergies, injuries, toxicity, but instead were confronted with high CO<sub>2</sub> and "altitude sickness." The CO<sub>2</sub> went to 14.2%. When they realized this and pumped in oxygen raising levels to 28% in one room, everyone immediately became happy and energetic, but when they left that room they returned to low energy, etc. Their bodies were in hiberna-

tion. It turned out that the concrete in the structure was absorbing too much oxygen from the microbial breakdown.

Another major issue was the psychology/behavioral health in isolated confined environment (ICE). They learned that an odd number of inhabitants is optimum in isolated environments. They had an even number (8) which easily broke into 2 stable groups of 4. The split was permanent for 18 months, but they managed to keep the sphere operating. Depression and flashbacks were also evident. Inhabitants or voyagers on any long-duration mission need training in behavioral health and professional assistance. At the end of the mission they all took the MMPI and interestingly no gender differences were found between the 4 women and 4 men of the crew.

In comparing Biosphere 2 to long-duration spaceflight (LDS), the Biosphere 2 was a huge space—3.2 acres—compared to the space on the International Space Station, and they still had compatibility issues! Astronauts are poetic about viewing Earth from space. Biospherians felt poetic about being part of the system—that what they ate and breathed and their waste contributed back to the environment and provided nutrients for the plants. Ms. Poynter emphasized that it is critical to be able to perform diagnostic research, both in Biosphere 2 and in LDS. She also noted that abort time for LDS is crucial—it was immediate for Biosphere 2, it is only 1 day for ISS, but for long-duration spaceflight it will be months to years.

ISS is ready and waiting for long term inhabitants; Biosphere 2 is still working, but uninhabited—it is now part of the University of Arizona near Oracle, AZ.

**46th Armstrong Lecture:  
"Impact of Climate Change on Human  
Health: NASA's Unique Perspective from  
Space"**

John Haynes delivered the 46th Harry G. Armstrong Lecture on Thursday, May 12, 2011, at the Dena'ina Convention Center during the AsMA 82nd Annual Scientific Meeting in Anchorage, AK.

Mr. Haynes is Program Manager for Weather Applications, Public Health Applications, and the Gulf of Mexico Initiative in the Applied Sciences Program of the NASA Science Mission Directorate. The NASA Earth Science strategic goal is to "Advance Earth system science to meet the challenges of climate and environmental change." It covers six areas: water and energy cycle; atmosphere composition; carbon cycle and ecosystems; climate variability and change; Earth surface and interior; and weather.

During the golden age of remote sensing there were 16 remote (satellite) sensors. By 2014, 6 of the current 16 satellites will be gone. Some of these satellites work together in a constellation overlaying data; for example: Aura, Terra, and Aqua (air, land, and sea). These satellites working together provided information on thickness of the volcanic ash from Iceland; the thickness of arctic ice; the extent of the smoke from Yukon fires; the approach of Hurricane Katrina; the area of ocean covered by the BP Gulf Oil spill.

The Applied Sciences Program acts as a bridge between NASA Earth Sciences and social needs. Their mission statement is "Advance the realization of societal and economic benefits from NASA Earth science by

identifying societal needs, conducting applied research and development, and collaborating with application developers and users." The program covers eight areas from public health to aviation weather.

The most important data sharing is for public health covering wide-ranging health effects. Examples include:

- Human exposure to Atmospheric Ionizing Radiation (AIR) and pilot and astronaut exposure to AIR;
- Emerging and re-emerging diseases: malaria may increase in altitude with global warming—i.e., the mosquitoes carrying malaria will be found at higher altitudes as these become warmer.
- In the Desert Southwest, more dust, more storms and these are getting worse—increasing in intensity. To supply school teachers with data on dust so they know whether it is safe for children to go out at recess for example—they now can send a text message pinpointing where dust is a problem.

The program has acted in collaboration with DoD on Aviation Influenza, on Rift Valley Fever in Africa, on malaria (along with USGS, USAID, and Columbia University), and with Columbia U on Meningitis in Africa Sahel.

There were nine new Public Health Applications projects awarded by NASA in January 2011 representing an investment of over \$1.3M over 2 years. Projects of note:

- "Development of a Detection and Early Warning System for Malaria Risk in the Amazon"; PI: Benjamin Zatchik of Johns Hopkins University
- "Improving Decision-Making Activities for Malaria and Meningitis Risk Mapping – Integration of NASA Products/Platforms (SERVIR) and UN WHO-Open Health"; PI: Pietro Ceccato of Columbia University
- "Internet-based Heat Evaluation and Assessment Tool"; PI: Susan Maxwell of BioMedWare
- "Modeling Global Influenza Risks Using NASA Data"; PI: Richard Kiang of NASA Goddard Space Flight Center
- "Investigating the Potential Range Expansion of the Vector Mosquito Aedes Aegypti in Mexico"; PI: Sue Estes of USRA.

Mr. Haynes emphasized that though some of NASA's recent focus on space sciences may be shifting, it has always been the mission of NASA to study spaceship Earth.

Both lectures are available for download from IntelliQuest Media, Inc., <http://www.intelliquest-media.com/library/AerospaceMed2011>



**BAUER LECTURE**--Jane Poynter (right) receives a certificate and honorarium from Bob Ellis (center) representing the sponsor, Wyle, while AsMA President Marian Sides looks on (left).



**ARMSTRONG LECTURE**--John Haynes (Center) accepts a certificate and honorarium from George K. Anderson (right), representing the sponsor ETC as AsMA President Marian Sides looks on (left).

# The History of Honorary Fellowship in AsMA

By Pamela C. Day

I am deeply honored to have been chosen as an Honorary Fellow of the Aerospace Medical Association. As the most recent recipient of this honor, I was curious about the others in this select group. Who was the first Honorary Fellow? Ross McFarland in 1947. When was the last Honorary Fellow chosen prior to this year? Herman Abramowitz in 2006. And I wanted to confirm that I was indeed the first staff member to be awarded this honor. I am. Only 23 individuals, 3 of them women, in 64 years have been so honored.

In 1942 the first group of Fellows of AsMA was elected. In 1947, an amendment to the Constitution paved the way for a new class of Fellow—Honorary Fellow—and Ross A. McFarland was the first person to receive the honor in that year. The following text is taken directly from the *Journal of Aviation Medicine* from 1947:

## Editorial Comment

From *J Aviat Med* 1947; 18(4, August): 307.

We wish to pay tribute to the retiring Secretary-Treasurer of the Association. For fifteen years, Dr. D. S. Brachman has filled that office and it is to the regret of all that he declined another re-election. The Secretary is probably the most important officer in any organization. It has been Dr. Brachman's faithfulness, his conscientiousness and his devotion to the Association that have carried the organization through its formative years, its "growing pains," its tremendous expansion and most recently its postwar readjustment. The Association, indeed, owes him a debt of gratitude for his efficient service—service always cheerfully given and service ever more time consuming.

Dr. Thomas H. Sutherland, who has served for three years on the Council, was elected to succeed Dr. Brachman.

We had hoped to publish some of the proceedings of the 18th Annual Meeting in this issue, but, unfortunately, they were not received in time to do so.

We may, however, state the proposed amendments to the Constitution and By-Laws were adopted with a few changes. The



**HONORARY FELLOW**--Pamela C. Day (left), Managing Editor of *Aviation, Space, and Environmental Medicine* and a staff member for over 31 years was elected to Honorary Fellowship. Petra Illig, M.D., (right) this year's Arrangements Chair, congratulates her.



**ASMA FELLOWS CLASS OF 2011**—This is the class of 2011 Fellows: Paulo M. Alves, M.D., M.Sc., Christopher R. Armstrong, M.D., M.P.H., Eugenia A. Bopp, Elis A. Boudreau, M.D., Gordon G. Cable, M.D., M.B., B.S., Robert E. Carroll, M.D., John M. Gooch, M.D., Arthur T. Hadley, M.D., John R. Heil, M.D., MMC, Deborah A. Hinkley, M.D., Kathryn G. Hughes, M.D., Petra A. Illig, M.D., Peter H. Lee, M.D., Janet L. Sanner, MSN, RN, COHN-S, CCM, Richard A. Scheuring, D.O., Willis M. Simmons, M.D., Carlos E. Staff, M.D., and Arthur F. Wells, M.D. Pamela C. Day was elected as Honorary Fellow. Those present at the Honors Night Ceremonies are pictured here.

words "of the United States" have been dropped from the name, making the Association more international. A new class of membership—associate membership—has been approved. This includes physicians trained in aviation medicine, from countries other than the United States and Canada. Associate members are eligible for advancement to Associate Fellowship and Fellowship, and when so advanced are entitled to all membership privileges. A provision has also been made for Honorary Fellowship.

The first one to be elected an Honorary Fellow was Ross A. McFarland, Ph.D. Dr. McFarland received a double honor. Not only did he receive this honorary fellowship but he also was named as the first recipient of the Raymond F. Longacre Award.

The next meeting of the Association has been set for Toronto, Canada, June 16-18, 1948.

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As I researched the list of Honorary Fellows, it became apparent that some had inadvertently been omitted from the list we have been publishing over the years. Often, the only mention of an Honorary Fellow was within the report of the annual meeting where the new Fellows were listed, so without our Mira™ digital archives (online for free to members) it would have been very difficult to find those early individuals who were elected.

Here is the updated list of Honorary Fellows with the year of their induction:  
 Herman Abramowitz—2006  
 E. J. Baldes—1972  
 Medecine General Pierre Bergeret—1955  
 Prince Bernhard, The Netherlands—1956  
 Detlev W. Bronk—1949

David M. Brown, M.D. (Posthumously)—2003  
 Mrs. Anna Chenault—1975  
 David M. Clark—1962  
 Laurel B. S. Clark, M.D. (Posthumously)—2003  
 A. Scott Crossfield—1962  
 Pamela C. Day—2011  
 Adolph P. Gagge—1948  
 Anatoly I. Grigoriev—1993  
 John W. Heim—1966  
 Howard T. Karsner—1958  
 Barry G. King—1962  
 Edwin A. Link—1980  
 Air Marshall P. C. Livingston—1949  
 Ross A. McFarland—1947  
 Masamitsu Oshima—1994  
 Mrs. Eugen G. Reinartz—1971  
 Harvey W. Watt—1967  
 Sir Harold Whittingham—1949

## Future AsMA Meetings

May 13-17, 2012  
 Atlanta Hilton  
 Atlanta, GA

May 12-16, 2013  
 Chicago Sheraton  
 Chicago, IL

May 11-15, 2014  
 San Diego Hilton  
 San Diego

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

## 2011 Life Sciences and Biomedical Engineering Branch (LSBEB) Awards

### A. Howard Hasbrook Award Christopher B. Albery

The A. Howard Hasbrook Award, presented to Mr. Christopher B. Albery, Principal Scientist supporting the USAF's Vulnerability Assessment Branch of the 711 Human Effectiveness Directorate at Wright Patterson AFB, recognizes an individual who has provided noteworthy data or design with respect to safety, survivability, or crashworthiness relevant to aircraft or space vehicles. It is sponsored by Athena GTX.

Mr. Albery began his career as a junior researcher responsible for the development of a state-of-the-art mass properties system to be used to ensure the ADAM manikin being developed by his company had representative segmental and whole-body mass properties. He developed both small and large systems that are still in use today. These systems have also been used to precisely measure numerous head-borne equipment such as helmets, chem-bio, oxygen, helmet-mounted displays, and night vision equipment to ensure the weight and CG limits that he helped develop are not exceeded.

Mr. Albery became a principal investigator for the Biomechanics Branch, investigating the injury risk associated with impact such as that resulting from ejection, hard landing, and windblast. He performed over a thousand drop tower and horizontal sled tests on human and manikin that have helped to define human spine injury tolerance limits. He has recently lead impact research programs for NASA's Orion program related to the efficacy of possible crew impact attenuation systems, seats, and pressurized suits. He was picked by the JSF Fleet Hearing Survey Team to represent the USAF onboard 5 aircraft carriers over 14 months collecting hearing protection data on over 300 troops that lead to the implementation of the new Navy Fleet Flight Deck Cranial.

Currently, Mr. Albery is finishing up a 3-year U.S. Army-funded effort to directly measure the segmental mass properties of 20 male and female cadavers in order to develop population-level predictors of human body mass properties derived from an expanded cadaver data set matched to Army's ANSUR database. These data will serve as the most accurate and extensive database of human body and segmental mass properties in existence. These findings will impact the entire biomechanics

field and serve as the primary resource for the next generation of human dynamic modeling and simulation tools. He has authored or co-authored more than 100 scientific articles, technical reports, abstracts, and presentations throughout his career.

### Professional Excellence Award Adrian Smith

The Professional Excellence Award, presented to Dr. Adrian Smith, RAAF Institute of Aviation Medicine, Edinburgh, South Australia, recognizes an individual who has produced outstanding research accomplishments or technical and/or research management achievements important to life sciences and/or biomedical engineering of a number of years. It is sponsored by Eagle Applied Sciences.

Dr. Smith first became involved in aeromedical research as a medical officer supporting a flying regiment in Australia in 1999. He observed that many pilots and loadmasters, operating in the mountains of Papua New Guinea, were experiencing neurocognitive and psychomotor symptoms of hypoxia at altitudes below the previously considered benign threshold of 10,000 ft. His research identified a large number of operationally significant hypoxia events where aircrew believed flight safety had been compromised. He attributed this to the degree of physical activity inherent in helicopter flying and loadmaster duties. In subsequent research in 2006, he identified that physical activity equivalent to loadmaster duties at 7000 ft can produce hypoxemia, symptoms of hypoxia, and neurocognitive impairment, similar to the symptoms found more commonly while resting at an altitude of 12–14,000 ft. At a practical level, his research findings have influenced the development and acquisition of oxygen systems for helicopter aircrew and shaped the physiological training they receive. These research projects were published in *Aviation, Space, and Environmental Medicine*.

For the last 2 years, Dr. Smith has been working on evaluating the effectiveness of hearing protection devices used by military aircrew. Despite the widespread use of hearing protection – including foam and molded earplugs – noise-induced hearing loss continues to be a serious occupational hazard for aircrew and personnel who work around aircraft. In 2009, he conducted seminal research within the Australian Defense Force which explored

the 'real-world attenuation' of foam earplugs – the level of attenuation experienced by typical users in a work setting (rather than idealized testing in the artificial environment of an acoustic lab). His research revealed that many people receive substantially less hearing protection than the earplugs are rated to, with some receiving little or no hearing protection. However, personnel can improve the attenuation they get from their earplugs by 10 dB or more with structured training.

In 2010, Dr. Smith discovered that the lubricant used with molded communications earpieces provided 3–6 dB additional attenuation at each of the frequencies tested. Although the gel manufacturer referred to its 'acoustic seal', its attenuation had never been demonstrated, so this provided the first evidence that the gel served a function more than just lubrication. In 2011, he found that molded earplugs often provided little or no attenuation because they were used incorrectly. Once properly trained, most people achieve a level of attenuation that meets or exceeds the factory-specified noise ratings for the earplug.

### Research and Development Innovation Award David A. Self

The Research and Development Innovation Award, presented to David A. (Andy) Self, Ph.D., R.N., FAA Civil Aeromedical Institute, Oklahoma City, OK, is given to an individual who has demonstrated innovative life sciences and/or biomedical engineering research as related to the design or development of aerospace medical equipment or systems. This award is sponsored by the David Clark Company, Inc.

Dr. Self's development of a physiological model to estimate hypoxic injury resulting from airliner decompression at high altitude and the effect of the hypoxia on passengers who are not able don their oxygen masks was the product of inspiration, hard work, and in-depth understanding. His physiological model to determine hypoxic injury provides much needed scientific data for a Federal Aviation Administration (FAA) rule-making project on high altitude flight limits for airliners.

Dr. Self started work using currency of science and aviation safety. He is a Ph.D. and R.N.; thus, he combines research and clinical knowledge. His stroke of inspiration was that

See *LSBEB*, p. 852.



**Hasbrook Award**--LSBEB President Dr. Thomas Morgan (left) presents the award to Dr. William Albery (right) in Christopher. Albery's stead.



**Professional Excellence**--LSBEB Awards Chair Dr. Barry Shender (left) presents the award to Dr. Smith (right).



**Research & Development**--LSBEB President Thomas Morgan (left) presents the award to Dr. Self (right).

# AEROSPACE PHYSIOLOGY REPORT

## Aerospace Physiology Society 2011 Award Winners

by *Capt. Eric Chase, USAF, BSC,*  
*Awards Committee Chair*

The Aerospace Physiology Society (AsPS) is proud to announce the winners of the Society's three annual awards for excellence in operational aerospace physiology, aerospace physiology research, and aerospace physiology leadership. The award winners were announced during the 82nd annual Aerospace Medical Association Annual Scientific meeting in Anchorage, AK, during the AsPS luncheon. The Society would also like to acknowledge each of our award sponsors. Because of their generosity, each winner is presented with a plaque and an honorarium. Additionally, the winner of the Fred A. Hitchcock award is presented with a hardbound copy of "Barometric Pressure" in a finished wood award case. This perpetual trophy is passed down to all Fred A. Hitchcock award winners.

### Wiley Post Award LT Kimberly Maryman

The Wiley Post Award recognizes outstanding contributions in direct operational physiology and aeromedical training and education over the previous 12 months. In 1972, the Wiley Post Award replaced the Paul Bert Award for Operational Physiology. Sponsored by Gentex Corp, 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 winner for 2011 is **LT Kimberly Maryman, USN**, who skillfully formalized and led the Aircrew Systems Mishap Investigation Support Team. As the FAIL-SAFE Team Lead, LT Maryman was responsible for the Fleet introduction of all new and/or modified Aircrew Systems products including training and testing. She assumed primary responsibility for an \$800K Naval Aircrew Training and Operating Procedures Standardization manual rewrite effort while she executed a budget of \$915K, drafted SOPs, and led 75 active duty, GS, and contract support personnel.



### Paul Bert Award LCDR Tyson Brunstetter

The Paul Bert Award recognizes outstanding research contributions in aerospace phys-

iology over the previous five years. This award, sponsored by Wyle, was established in 1969 and is named in honor of the famous French physiologist, Paul Bert, the "Father of Pressure Physiology." The winner for 2011 is **LCDR Tyson Brunstetter, USN**. As Research Director for the Naval Refractive Surgery Center, LCDR Brunstetter has led seven research protocols. These include two landmark "LASIK in U. S. Naval Aviation" protocols, a Congressionally directed FDA/NIH/NEI post-LASIK Quality of Life protocol, and the groundbreaking development of the U.S. Navy Aircraft Carrier Landing Simulator System as a Clinical and Research Tool. The latter will serve as a revolutionary research device for measuring operational visual performance.



### Fred A. Hitchcock Award Lt. Col. Andrew Woodrow

The Fred A. Hitchcock Award recognizes career contributions of senior aerospace physiologists for excellence in either operational aerospace physiology or aerospace physiology research. This award, sponsored by International ATMO, was established in 1972, and is named in honor of Fred A. Hitchcock Ph.D., co-translator of Paul Bert's classic work, "Barometric Pressure." The 2011 winner is **Lt. Col. Andrew Woodrow, USAF**, who has been at the forefront of aircrew integration, flight safety, and aeromedical education for over 28 years. An international leader in education and accident analysis, he has generated many strategies to allay performance errors, drafted requirements for advanced training systems, and was the catalyst that propelled Human Performance Training from a single billet to an Air Force-wide application. His innovative approach to decompression sickness mitigation and equipment modernization aided in promoting aviation safety and efficiency of high altitude flight.

Congratulations to all of this year's winners. Their hard work and dedication is a testament to the high quality of individuals dedicated to research, education, and training in Aerospace Physiology.



## Certification in Aerospace Physiology

The Aerospace Medical Association is pleased to congratulate those who successfully completed the requirements for Board Certification in Aerospace Physiology at the annual Aerospace Physiology Society luncheon on 11 May at the scientific meeting in Anchorage, AK.

**LCDR Nick Anthony DiMaso, USN**, attended California State University, Northridge, earning a B.S. in Environmental Biology in 1986. In 1987 he was commissioned into the United States Marine Corps. In 1995 LCDR DiMaso earned his Master's degree with Distinction in Gastrointestinal Physiology from Cal State University, Northridge, in 1998. He went on to earn his Ph.D. in Molecular Physiology from University of California, Irvine, in 2004. In 1999, he was commissioned a Lieutenant (junior grade) in the Medical Service Corps. LCDR DiMaso currently serves as the Director, Operational Test and Evaluation for Aircrew Systems at HMX-1.



**LCDR Michael S. Kavanaugh, USN**, attended Illinois Benedictine College, graduating with a B.S. in Biology and Minor in Biochemistry in 1984; he graduated from Indiana University with a M.S. in Physiology in 1989. LCDR Kavanaugh was commissioned into the U.S. Navy in September of 1995. LCDR



Kavanaugh is currently serving as a Personnel Exchange Program (PEP) Officer with the United Kingdom's Royal Air Force Centre of Aviation Medicine. He has logged over 750 flight hours in 18 aircraft platforms with the U.S. Navy, Marine Corps, Air Force and Army.

**LT Heath M. Clifford, USN**, is a native of Crestwood, Kentucky. He attended the University of Louisville and earned a B. A. in Liberal Studies in 1993 and received an M.A. in Education with an emphasis in Allied Health Science from Eastern Kentucky University in 1994. He was commissioned in December of 2003. LT Clifford is currently assigned to Commander, Electronic



See *CERTIFICATION*, p. 852

**CERTIFICATION, from p. 851**

Attack Wing U.S. Pacific Fleet as the Department Head of Safety. He is the Night Vision Device Program manager and provides aeromedical and Aviation Life Support Systems support to five EA-18G and ten EA-6B squadrons. In 2008 LT Clifford was recipient of the Wiley Post Award for Operational Physiology presented by the Aerospace Physiology Society.

**Capt. Matthew T. Taranto, USAF**, was commissioned into the USAF in 2003 after graduating from the Northern Arizona University.



Capt. Taranto is assigned to the 99th Aeromedical Squadron, Nellis Air Force Base, NV, as the Chief of Aerospace and Operational Physiology. Captain Taranto leads the United States Air Force Warfare Center Hypoxia Familiariza-

tion Training program, Human Factors mishap investigation and prevention efforts, the Weapons School GLOC prevention program, the ACCES custom earpiece system, and numerous performance optimization efforts spanning 40 Human Factors topics. He has held a variety of assignments spanning three major Air Force commands and numerous operational missions.

Born and raised in Ambridge, PA, **LT Tim Welsh, USN**, attended Slippery Rock State University, earning a Bachelor of Science in Exercise Science (1997) and a Master of Science



Degree in Exercise Physiology (2000). In November 2005 LT Welsh received his commission from the Navy and completed Student Naval Aerospace Physiology training at Naval Air Station Pensacola. He is currently assigned as the

Aeromedical Safety Officer at Training Air Wing Six, Naval Air Station Pensacola.

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**Aerospace Physiology Certification**

The Aerospace Physiology Certification Board of the Aerospace Medical Association will administer the certification examination at the 83rd Annual Scientific Meeting in Atlanta, GA, on Sunday, May 13, 2012.

Being awarded the gold pO2 pin and certificate of board certification says that a scientist has met significant academic challenges and is a true professional in a select field. In essence, board certification declares that an individual has formally earned the respect of his or her professional peers and their governing organizations. Finally, board certification serves as a goal that members can strive to attain through dedicated self-study and personal and professional contributions to the AsMA and AsPS. However, eligibility is not simply limited to individuals who possess the necessary academic backgrounds. Perhaps the most significant prerequisite is demonstrated interest, participation, and contribution to the field of aerospace physiology over a period of at least 5 years. Relevant education, experience, and professional contributions are each fundamental elements leading to board certification. Board certification in aerospace physiology says that a scientist takes the aeromedical profession seriously.

Application must be made prior to March 1, 2012, to assure consideration for the 2012 examination. Applications received after that date cannot be guaranteed consideration for the 2012 exam. Any late applications not considered for 2012 will automatically be held for consideration for the 2013 exam.

To obtain an application form and complete information about certification requirements, submit a short biography describing your relevant background in aerospace physiology and request for information to the Chair of the Admissions Committee:

Troy P. Faaborg, Maj, USAF, BSC, CAsP  
502 Westgate Drive  
Warrensburg, MO 64093  
Email: troy.faaborg@whiteman.af.mil (professional), or faaborgs@msn.com (personal)

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**LSBEB, from p. 850.**

clinical research might provide relevant information. In clinical literature, he found that the human body contained finite oxygen reserves and when the oxygen reserves are depleted brain damage may occur. He applied a well-established respiratory equation to high altitude exposure to calculate when the oxygen reserve was depleted; however, the model could not determine the extent of damage caused by exposure to the hypoxic condition. Again using clinical research literature, Dr. Self found that a blood enzyme was used clinically to determine the extent of hypoxic brain injury resulting from various medical conditions and research was available to demonstrate a relationship between the enzyme and time without oxygen.

Putting this information together, Dr. Self now had information that he could use with altitude and exposure times to determine when the exposed passenger reached a negative oxygen balance and for how long. Additionally, he had research information to determine when oxygen reserves were depleted and clinical data indicating the potential for hypoxic injury. His model will provide a valuable tool for regulators to calculate the risk of their decision. After years of debate, the FAA and industry will have a scientifically valid method to determine high altitude exposure limits.

**Ross McFarland Student Award Binoj Thankappan**

The Ross McFarland Student Award is given to the author of the best student paper accepted by the AsMA Scientific Program Committee that reports on a significant achievement in biomedical engineering. There are no nominations for this award. The best abstract from those submitted by students each year is selected by a committee. The 2011 winner was Binoj Thankappan of the Institute of Aerospace Medicine, India, for "Speech Intelligibility in Aircraft Noise Under Hypobaric Hypoxia." The goal of Binoj's study was to understand the combined effect of hypobaric hypoxia and aircraft noise on speech intelligibility and threshold of hearing for pure tones of different frequencies between 125 Hz and 10,000 Hz when the effect of ambient pressure is controlled. The McFarland Award is sponsored by Gentex Corporation.



**Ross McFarland Award--**Dr. Bhupi Singh (left) accepts the award for Binoj Thankappan from Mr. John Winship (right).

## The SMA Jeff Myers Young Investigators Award

The Space Medicine Association Jeff Myers Young Investigators Award (SMA JM YIA) is a competition intended for those making their first major efforts into Aerospace Medicine Research. To compete for this award, contestants must be making their first presentation of a scientific paper or poster at an AsMA meeting (excluding cases presented at Grand Rounds as a student resident); they must appear as first author on the paper; and they must prepare and submit a manuscript for judging. Finalists compete in a second phase of competition at the AsMA Meeting involving further evaluation of their presentation and interviews. The potential applicability of the findings to Space Medicine and the degree of involvement of the student in the project are major considerations. The finalists in this year's competition, selected from 175 contestants, are richly talented and diverse.

The winner of the 2011 SMA JM YIA is Bonnie Posselt, M.B.Ch.B. (E), B.Se. Her paper is entitled "The Effects of Light Exercise on Psychomotor Performance and Arterial Oxygen Saturation at a Simulated Altitude of 4572 M (15,000 feet)." In the paper, Ms. Posselt demonstrated that performance is not yet significantly affected by exercise at that altitude level, although her continuing work appears to show a decrement as altitudes increase. This will be indispensable data as we select the working atmosphere for our habitats in space and the spacecraft to get us there. Dr. Posselt was a student of Professor Ernsting at the Kings College of London (the College had produced the runner-up paper by Dr. Houston just last year). It is safe to say that she has a keen understanding of statistics as Prof. Ernsting insisted she check each calculation by hand. It is good to see the professor live on through the work of his students. Bonnie began in aviation as a mere 'cadet' in the UK version of our Civil Air Patrol but aspires to complete her pilot's license and graduate as a Diplomat in Aviation Medicine. Beyond that, even the sky may not be her limit!

The first runner up is Hong Gao, O.D., Ph.D., an Optometrist and scientist from the Naval Aeromedical Research Laboratory in



**SMA JM YIA**--Bonnie Posselt, M.B.Ch.B. (E), B.Se. receives the award from its founder Jeff Myers.

Pensacola, FL. Her paper is entitled: "Pupillometry as an Investigative Tool in the Aeromedical Sciences." The second runner up is Cathy DiBiase, BSN, a long time flight nurse at the Kennedy Space Center who has just begun expanding her horizons into the realm of research. Her paper is entitled: "Subjective and Objective Comparisons of Heat Tolerance in the Level A Protective Ensemble vs. the NASA Propellant Handlers Ensemble During Exertion." Other finalists include: Cengiz Ozturk, M.D., from Turkey; Paola Verde, M.D., a captain in the Italian Air Force; Natacha Chough, M.D., from Stanford University; Leedjia Svec, Ph.D., a lieutenant from the NAMR Unit at San Antonio; John Heaton, M.A., from the Aeromedical Consult Service of USAFSAM; Lt. Col. Rene Heise from the German Institute for Aviation Medicine and the Mountain Wave Project; Kimberly Turner from Australia; Dalia Hashish, M.D., from the Egyptian Civil Aeromedical Council; and Michael Gallagher, M.D., from the University of Calgary in Alberta, Canada.

If you want to do more than just exist, you must have a dream. As the Space Program prepares for the next stage of exploration, the Young Investigators are also building their dreams by preparing and honing their skills: Natacha Chough has become a Wilderness First Medical Responder; Michael Gallagher is in a remote medicine residency in the Canadian Rockies; future YIA contestant Derek Nusbaum is preparing for the South Pole; and Rene Heise will be attempting a new world glider record in Tibet! Let's give this new generation of Space Explorers everything they need...so all our futures will be bright!

I would like to especially thank the members of the YIA committee (without whom this competition would not be possible, and who did extra duty this time since I recused myself from deliberations because Cathy is a former co-worker): Drs. John Darwood, Lloyd Tripp, Smith Johnston, Dan Woodard, Lou Moreno, Jeff Jones, and Dwight Holland.

**K. Jeffrey Myers, M.D.**  
SMA JM YIA Chair

### Other SMA Awards:

**Strughold Award:** Michael Barratt, M.D.  
**Journal Award:** Gary Gray, M.D., Ph.D., for the article: Gray GW, Sargsyan AE, Davis JR. Clinical risk management approach for long-duration space missions. *Aviat Space Environ Med* 2010; 81:1128-32.

**Jeffrey Davis Scholarship:** Dan Buckland  
**Wyle Scholarship:** Mark Lipsett, M.D., Ph.D.

## SMA Awards

### Journal Award

Presented to a member of the SMA who is the first author of an article published during the previous calendar year in *Aviation, Space, and Environmental Medicine*. The Awards Committee nominates candidates to the SMA Executive Committee, who selects the recipient by a majority vote. The award is presented at the SMA Annual Business Meeting.

### Scholarships

1) **Jeffrey R. Davis Scholarship:** Sponsored by Jeffrey R. Davis and established to support students who are pursuing educational objectives relative to space medicine. Includes a check for \$500 and a free registration for the AsMA Scientific Meeting in May 2012. Application forms are due March 1, 2012. Forms and instructions can be found at the SMA website: [www.asma.org/Organization/SMB/smb.htm](http://www.asma.org/Organization/SMB/smb.htm).

2) **Wyle Scholarship:** The purpose of the SMA Wyle Scholarship is to encourage students who have demonstrated academic achievement and have shown an interest in Space Biology and Space Medical Operations (e.g., biomedical engineering, space flight physiology, human factors research, nursing, psychology, safety, life sciences, etc.) to further pursue a career in Space Medicine.

### SMA Jeff Myers Young Investigator Award

Presented to the primary author of an outstanding presentation in the area of Aerospace Medicine presented at the current Annual Scientific Meeting of AsMA. Must be original work and the young investigator a first-time presenter. Submit a draft manuscript of the presentation to the chair of the Jeff Myers Young Investigator Award sub-Committee by March 30, 2012:

K. Jeffrey Myers, M.D.  
Space Medicine Association  
Young Investigator Award Chair  
P.O. Box 540305  
Merritt Island, FL 32954  
[rocketranger21@bellsouth.net](mailto:rocketranger21@bellsouth.net)



**SPACE MEDICINE ASSOCIATION JEFF MYERS YOUNG INVESTIGATOR AWARD**--Finalists for the SMA JM YIA together with Dr. Myers (center, back).

# WING NEWS & NOTES

## "News & Notes" Bids Farewell to the Journal

by Dale Orford

For the past 33 years the Wing of the Aerospace Medical Association has been a featured contributor to the Journal of *Aviation, Space, and Environmental Medicine*, allowing us to keep in touch with our members across the globe. On this page we have featured news of our members as well as information on our annual and international meetings. From our first issue in September of 1977 under the editorship of Mrs. Frank Austin, to this our last page, under the guidance of current Managing Editor Pam Day, we have chronicled the history of our organization. It has been a wonderful relationship and we have truly enjoyed working with such a professional and friendly editorial staff. However, it is now time for the Wing to embrace the new technology of the 21st century. In future, you will be able to access all of our information as well as pay your

annual membership dues, and register for the annual meeting on our Web page at: <http://www.thewingofasma.com>. Here you will also find a listing of current Board members and their contact information, along with our newsletter. While the Web page will provide information to the general internet readership, our Facebook page will remain a private site for our members to interact directly with each other. You can post your news, photos, or even chat with others in real time online. You will need to establish your own Facebook account to access it, but it is free and easy to do so.

The Wing would like to take this opportunity to express our sincere thanks to the Aerospace Medical Association, to its Executive Directors and Editorial Staff over the past 33 years, and to our readers who have made this page such an important part of the Wing.



**2011-- Anchorage--** Annual Business meeting and luncheon, Nevonna Schroeder presiding.

## A Journey Down Memory Lane



**1956--**The Wing's first four Presidents: Mrs. Robert Benford, Mrs. Harry Armstrong, Mrs. William Stovall, and Mrs. W. Dana.



**1971--**Passing the gavel - Mary Wurzel and Helene White.



**1962--**Dressing up for the Wing's meeting - Mrs. Theodore C. Bedwell, Jr., and Honorary Member Mrs. Gloria Heath.



**2004--Anchorage--**Jon and Jackie Jordan, Jean and Frank Pettyjohn, Ulf Baldin, and Elina and George Takahashi enjoy lunch.



**2005--Kansas City--**Ladies of the Red Hat Society.



**2003--San Antonio--**Mariette Jones on a tour of Mission San Jose.



**2006--Orlando--**Harriet Hodgson cautions Wing members during our Orlando meeting.



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



### Exhibitors at AsMA's 82nd Annual Scientific Meeting in Anchorage, AK

AsMA would like to sincerely thank all those who exhibited at our annual meeting. Pictured on this page are some of our loyal corporate members who exhibited during the meeting.

All photos are by Pamela Day.



# 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**

**Lt.Col. Lance L. Annicelli, USAF, BSC, CasP**, formerly the Flight Commander, Aerospace & Operational Physiology and Director, NVG Academic Instructor Course at Randolph AFB, TX, is now the Aerospace Physiologist Exchange Officer at the Aircrew Equipment Integration Group, Centre of Aviation Medicine, at RAF Henlow, UK. He is currently the President of the Aerospace Physiology Society and the Chair of the AsMA Associate Fellows Group.

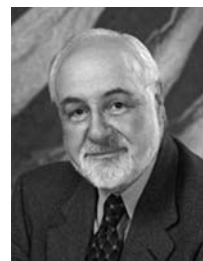
**Kenneth A. Ingham, Maj.Gen.(2-star, Ret.), M.B., B.Ch., MSA**, of Gauteng, South Africa, has retired from the South African Military Hospital, SAMHS HQ, Pretoria, and is now serving in Central Aerospace Medicine, which he established in 2001, at Grand Central Airport and part time as an AME for South African Airways (since 2000). From 1998-1999, he served as General Manager of Milpark Hospital. He was recently awarded the South African Civil Aviation Commissioners' Commendation for contributions to aeromedical safety in South Africa. Within AsMA, he has served on the International Activities Committee.

**Laura Drudi**, a third year medical student at McGill, was selected by the Canadian Federation of the International Space University (CFISU) on full scholarship to attend the Summer Studies Program of the International Space University in Graz, Austria, where Laura will be studying space science and earning a Diploma of Space Studies.

### Malcolm Cohen Honored by SUNY

Malcolm Cohen, Ph.D., was the commencement speaker at the State University of New York (SUNY) Oneonta and was awarded an honorary Doctor of Science degree. He received the degree from College Council Chair Patrick Brown and College President Nancy Kleniewski during SUNY Oneonta's 122nd commencement ceremonies. Dr. Cohen

is currently in private practice as an Aerospace Human Factors Consultant in Sunnyvale, CA.



Dr. Cohen received the Kent K. Gillingham Award from AsMA in 2011. He is a Fellow of AsMA, is on the Editorial Board for *Aviation, Space, and Environmental Medicine*, is a Past President and Charter Fellow of the Aerospace Human Factors Association, and a member of the NASA Sensorimotor Standing Review Panel. For more information on Dr. Cohen, please see his biography in the July issue (ASEM 2011; 82:751-752).

### Joe Kerwin Honored by Baylor College

Dr. Joseph P. Kerwin is a recipient of an honorary degree from Baylor College of Medicine (BCM) for his "influential contributions to space biomedical research and space medicine." He received the Doctor of Letters in Medicine degree during BCM's graduation ceremony in May. Kerwin, a former NASA astronaut, made history on May 25, 1973, as the first U.S. medical doctor to travel in space when the Skylab 2 crew launched. He spent 28 days in orbit as a member of the first crew to live aboard the Skylab space station.



Currently, Kerwin is a member of the National Space Biomedical Research Institute's (NSBRI) User Panel. The User Panel is a group of former and current astronauts and flight surgeons who assist NSBRI management, which is based at BCM, in determining high-yield research areas that will lead to effective strategies that enhance mission success and maintain or improve crew health. He also serves as Director Emeritus on NSBRI's Board of Directors and is a member of BCM's Center for Space Medicine.

Kerwin is a Fellow of the Aerospace Medical Association and a member of the Aircraft Owners and Pilots Association. To read more about this, please see the press release at [www.nsbri.org/newsflash/indivArticle.asp?id=454&articleID=141](http://www.nsbri.org/newsflash/indivArticle.asp?id=454&articleID=141). For more information about Dr. Kerwin, please visit [www.jsc.nasa.gov/Bios/htmlbios/kerwin-jp.html](http://www.jsc.nasa.gov/Bios/htmlbios/kerwin-jp.html).

Dr. Kerwin is a Fellow of the Aerospace Medical Association and a member of the Aircraft Owners and Pilots Association.

To read more about this, please see the press release at [www.nsbri.org/newsflash/indivArticle.asp?id=454&articleID=141](http://www.nsbri.org/newsflash/indivArticle.asp?id=454&articleID=141). For more information about Dr. Kerwin, please visit [www.jsc.nasa.gov/Bios/htmlbios/kerwin-jp.html](http://www.jsc.nasa.gov/Bios/htmlbios/kerwin-jp.html).

Council Member of the Polarographic Society from 1956-1965 and Editor from 1957-1962. He was a Senior Lecturer at the University of London from 1954-1965 and Professor at North Carolina State University from 1965 until he retired.

### New Members

- Ervin, Francis L., M.D., Maple Ridge, BC, Canada
- Fukuda, Shiro, Dr., Ube, Yamaguchi, Japan
- Koch, James F., M.D., Oakton, VA
- Kwan, Kelly M., B.S., Santa Clara, CA
- Mahesar, Samina, Flt. Lt., PAF, M.D., Karachi, Pakistan

**Looking for a past article?**

Members can log into the Members Only page to have access to both the archives and the online journal as a benefit!

Non-members may access the online journal and the archives through the journal page: [www.asma.org/journal/online\\_journal.php](http://www.asma.org/journal/online_journal.php)

**Reminder for Prospective Associate Fellows**

The Chair of the Associate Fellows Group reminds prospective candidates that applications are currently being accepted from qualified members of the Aerospace Medical Association for Associate Fellowship. Members who have made a positive contribution to the Association and have been a member for at least 5 years are eligible and encouraged to submit their application.

To apply, please submit a current Curriculum Vitae (CV) or resume directly to the Associate Fellows Group Membership Committee at [associatefellows@gmail.com](mailto:associatefellows@gmail.com). The deadline for submitting your application is close of business EST on 30 November 2011.

To learn more about Associate Fellowship, please visit our website at: <http://www.asmaafg.org>

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**Updated News of Members Form Online!**

A new online pdf form is available on the Members Only page so you can update your fellow Members on what you're up to. Send us news of awards, promotions, etc. Please remember to send us your e-mail address!

### Obituary Listing

AsMA has learned that **Dr. Ian S. Longmuir** died in early May. A native of Glasgow, Scotland, Dr. Longmuir earned a B.A. degree from Cambridge in 1943 and, in 1948, an M.B.B.Chir. from St. Bartholomew's, London, and an M.A. from Cambridge. He was a member of the American Society for Biological Chemistry, the American Chemistry Society, the A.A.A.S. Biochemistry Society, the Society for Experimental Biology, the Cambridge Philosophical Society, and the Aerospace Medical Association. He was a