

President's Page

Funding Our Future

The financial strength of an association is ideally built on a foundation of multiple income streams and consistent revenue generating pathways. How does AsMA fare against this description? We operate primarily on a uni-dimensional platform, a single revenue generating income stream, called the "Annual Meeting," i.e., risky business. What would happen if we had a global swine flu outbreak, or a volcanic eruption in Iceland, halting air travel, that would paralyze our meeting? We certainly faced such familiar environmental and public health threats in the recent past.

It is time for us to take action. We need to create greater diversification in work processes that will generate multiple income streams to empower this Association to more effectively "Fund our Future." The Executive Committee, our Executive Director, and home office staff are actively working on initiatives that will directly impact operational expenses and build financial strength for the Association. These initiatives include better utilization and rental of the home office space, increase in parking spot rentals, more astute financial management of our investments, options to stop receiving a paper journal, and many others.

So, what else do I have in mind? It is a quest for the discovery of alternative streams of revenue and nodes of innovation that can create new opportunities for member participation. I will discuss four mega issues that can, over time, augment the strength of our financial platform, by flanking our direct revenue streams with alternative income pathways.

The first mega issue is the **Foundation**. Founded in 2006, under the leadership of Dr. Richard Jennings, M.D., M.P.H., and other AsMA leaders, the Foundation supports scientific and educational activities and facilitates career aspirations of AsMA members. The Foundation is well rooted in solid financial principles, is structurally sound, and is brilliantly managed by Association leaders. My purpose here is to provide widespread visibility and increased awareness of the powerful implications The Foundation has for the future growth of AsMA and its constituents.

Do you know that when you allocate your constituent assets or part of it to the Foundation, as a directed or restricted gift, it is still yours? That's right, you do not lose it. You earmark that money for a specific purpose and it will be used only for that purpose. So then, what do you gain? You gain expert management of your funds, potentially greater growth of your investment, which would enable you to offer one additional scholarship, for example, or expand whatever service you are offering. I encourage every entity that has available assets to strongly consider investing a portion of these funds into The Foundation. Some of our constituent organizations have already done so. For further information, please visit the web site at www.asma.org.

The second mega issue is **Grant Writing**. A call for papers for the 82nd annual scientific meeting is two months in



Marian B. Sides, Ph.D.

process. The time is NOW to be proactive in creating and supporting priority issues in innovative science and medical research. I challenge the Scientific Program Committee and the Long Range Planning ad hoc Committee to work collaboratively in identifying top research priorities that will drive the future for scientific exploration in the field of aerospace medicine. Once the platform on priority issues is defined, grant proposals can be written to solicit monies to fund selected research. Government resources and funding at other levels are available along with guidelines for effective grant writing. Interested members are invited and encouraged to join these efforts in support of Association research and educational activities.

The third mega issue is **Fundraising**. We need to embrace revolutionary concepts in fundraising to provide new revenue streams in support of Association activities. Membership fundraising programs, such as annual fund campaigns, can solicit monies for specific kinds of research and educational programs and activities. Annual campaigns are the workhorses of the fundraising world and are a main vehicle that can keep non-profit organizations operational. Corporate sponsorships can be formed to sponsor fundraising events, such as golf outings and charity runs. Association auctions are another avenue of fundraising that can be held in conjunction with the annual meeting. I am certain that members would consider contributions of books and other useful items in support of an auction event.

The fourth mega issue is **Philanthropy**. We need to seize the challenges, opportunities, and new directions for philanthropic fundraising. Members of a new generation are changing the way philanthropy is done. Persons of wealth are seeking out causes for which their dollars can make a difference. For many, it is a form of giving back. As the saying goes, "you gotta give it away to keep it." Deserving organizations will reap the benefit of this wealth in the form of charitable donations, planned giving, and business investments. Let's be one of those deserving organizations. After all, we have the people in place to do the work. You will never find a more talented and devoted membership.

Association News

Sides Installed as President; Anzalone Becomes President-Elect of AsMA

Marian B. Sides, Ph.D., R.N., [Col., USAFR(Ret)], was installed as President of the Aerospace Medical Association during Honors Night ceremonies of the AsMA 81st Annual Scientific Meeting in Phoenix, AZ. She is the second woman and first nurse to be elected to this position. [A full biography was printed last year (ASEM 2009; 80:752), and is available on the journal page of our website.]

Fanancy Louis Anzalone, M.D., M.P.H., C.P.E., FAsMA, was elected to the office of President-Elect of the Aerospace Medical Association at their Annual Business Meeting, May 11, 2010, Sheraton Phoenix Downtown Hotel, Phoenix, AZ. He will automatically succeed to the presidency in 2011 at the AsMA meeting in Anchorage, AK. Dr. Anzalone is currently Medical Director, American Airlines Medical Department, Miami International Airport.

A native of Louisiana, Dr. Anzalone received his Bachelor of Science from Southeastern Louisiana University, Hammond, LA, in 1977. He earned his Doctor of Medicine from Louisiana State University School of Medicine, New Orleans, LA, in 1981. He went on to earn his Master of Public Health from Tulane University School of Public Health and Tropical Medicine, New Orleans, LA, in 1987. His residency in aerospace medicine was with the Naval Aerospace Medical Institute, Pensacola, FL, from August 1987 – June 1989.



Dr. Anzalone is an experienced physician and physician executive with critical analytical skills and a wealth of knowledge related to the development, implementation, and execution of clinical practice guidelines in accordance with evidence-based medicine. He has proven leadership skills and during several successful command positions in the U.S. Navy he worked closely with local health care communities from the Florida Keys to Naples, Italy, to establish cost effective, comprehensive, and convenient medical support for these diverse populations.

In his current position with American Airlines, he is responsible for all employees' occupational health requirements. He is a member of American Airlines' Medical Review Board which evaluates employees for long-term disability and verifies they continue to receive healthcare based on clinical practice guidelines with the goal of returning them to work. In addition, he is responsible for in-flight medical emergencies and evaluation of passengers with medical conditions that could be compromised by air travel.

Prior to his retirement from the U.S. Navy he was Director, Medical Resources, Plans,

and Policy, Chief of Naval Operations (N931), from July 2003 to March 2006. In this position he coordinated and implemented Surgeon General of the Navy's participation in Plan Program Budget System process valued at \$4.3 billion; developed balanced medical and dental programs within available resources; and developed and evaluated plans and policy for medical support of general war and contingency operations. He was responsible for oversight and coordination of all aspects of expeditionary medical systems and hospital ships as well as medical R&D initiatives consistent with operational support requirements. He developed and coordinated Navy and Marine Corps operational support requirements and developed and assessed legislative and policy initiatives involving Naval Medicine. In his previous role as Executive Assistant, Surgeon General of the Navy, from May 2003 to July 2003, CAPT Anzalone coordinated daily responsibilities and managed all communications and served as Navy Medicine's subject matter expert for Congressional inquiries. He represented Navy Medicine to other services and the Department of Health and Human Services.

Other Naval assignments include Commanding Officer, U.S. Naval Hospital, Naples, Italy, August 2000 to April 2003; Officer in Charge of the Naval Aerospace Medical Institute and the Director of Academics, Naval Operational Medicine Institute, August 1998 to July 2000; and Officer in Charge, Naval Branch Medical Clinic, Key West, FL, January 1995 to July 1998, where he established Telemedicine capability for Dermatology, ENT, Psychiatry, and Gastroenterology as well as Teleradiology for the new clinic based on Business Case Analysis. He was Executive Officer / Commanding Officer, Naval Medical Clinic, Key West, FL, April 1994 to Jan 1995.

Dr. Anzalone is a Certified Physician Executive (CPE), American College of Physician Executives; a Fellow of the Aerospace Medical Association; Past Chair of the AsMA Associate Fellows; Past President of the Society of U.S. Naval Flight Surgeons; and a member of the Society of Military Surgeons of the United States as well as the American Medical Association. In addition he is a Senior Aviation Medical Examiner, Federal Aviation Administration, and a Medical Review Officer, Department of Transportation. He has been an Expert Witness for Joint Commission on Accreditation of Healthcare Organization's Patient Safety from 2003 to present.

Other AsMA Elected Officers:

The newly-elected Vice Presidents are: **Philip J. Scarpa, Jr., M.D., M.S.**, and **Susan E. Northrup, M.D., M.P.H.**, **Jarnail Singh, M.D.**, and **James T. Webb, Ph.D.**, continue as VPs. The elected members at large with terms

through 2013 are **Richard E. Bachmann, Jr., M.D., M.P.H.**, **Charles R. Fisher, M.D., M.P.H.**, **Robert Johnson, M.B.A., M.D., M.P.H.**, and **David B. Rhodes, M.D., M.P.H.** In addition, **Gabor Hardicsay, M.D.**, was elected to fill the member-at-large seat vacated when Dr. Anzalone was elected President-Elect. **Arleen Saenger, M.D.**, will continue as Secretary, **P. Glenn Merchant, Jr., M.D.**, will continue as Treasurer, and **Jeffrey Sventek** is our recently appointed Executive Director.

AsMA Council Meeting Highlights: May 9 and 12, 2010, Sheraton Phoenix Downtown Hotel, Phoenix, AZ

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

At the Sunday Council meeting, minutes from the November 18, 2009, Council meeting were approved with one minor correction. The Executive Director (ED) briefed Council on the events of the Executive Committee meeting. In particular he reviewed the revised benefits package for AsMA employees. The ED reported significant progress in modifying the IMPak database to meet the needs of the Association. He reported the IMPak database is a robust software package offering AsMA capabilities in a consolidated database. Plans to maximize these capabilities include consolidating data from the Fellows and Associate Fellows databases; offering server space for Fellows, Associate Fellows, and Constituent Organizations websites to be hosted; integrating all websites on the AsMA hosting server with the IMPak database to facilitate membership management; and working to allow members to pay all their appropriate membership dues at one time online.

Regarding our status as a nonprofit organization, once the updated Articles of Incorporation are approved by the membership (done during the Tuesday business meeting), ED will meet with the attorney to complete 501(c)(3) application paperwork with the

See COUNCIL, p. 804.

Submit your 2011 Scientific Meeting Abstract

www.asma.org

Site available: September 1, 2010
Deadline: October 29, 2010

Online step-by-step instructions will guide you through the process.

You will receive immediate confirmation with a control number for online submissions.

COUNCIL, from p. 803.

District of Washington. This could take 6 months for approval after the application is submitted.

The Policy and Procedures working group will continue work through calendar year 2010 with plans to publish the updated manual. Incoming president **Marian Sides** and **Chuck DeJohn** will ensure proper integration of the manual changes with the AsMA Bylaws.

One of the highlights of the meeting was welcoming back the **Undersea and Hyperbaric Medical Society** as an Affiliate member. Their mission and objectives are very closely aligned with AsMA and we look forward to working more closely with them in the future.

Finance (Glenn Merchant): AsMA experienced a \$341,568 loss in 2009 as a result of multiple factors that created a "perfect storm": increased expenses in the form of depreciation, maintenance, credit card fees, insurance, database management, website, mailings, education/training, pensions, bonuses, journal, and travel; decreased revenues in the form of decreased membership and reduced journal revenue, reduced meeting revenue of nearly \$50K against the projected average; plus accounting adjustments in the form of accrued leave liability and several one-time accounting adjustments which accounted for over \$105K alone.

Annual Meeting (Sventek): Meeting statistics for Phoenix: Percentage of room block sold – 97%; Number of registrations – 1008 Advance, 1383 Total; Number of exhibitors – 35 exhibitors/46 exhibit spaces.

Scientific Program Committee (John Crowley): PowerPoint presentations will be collected from presenters this year. The plan is to post them on the website for members and attendees. There were 510 abstracts submitted, 484 accepted, 26 rejected (5.1% rejection rate). Other innovations for 2010 were an enhanced ethics statement and the addition of a human use/animal use statement.

Outreach (Jeff Sventek): The ED is working with the American Meteorological Society, the NASA Applied Sciences Program, and the CDC National Center for Environmental Health/Agency for Toxic Substances and Disease Registry (NCEH/ATSDR) to determine if improved communication and collaboration with these agencies would enhance the environmental medicine components of our Association focus. These agencies have been completing research that shows health effects associated with changes in the atmosphere. They are looking for an appropriate venue to present their information. The AsMA annual scientific meeting and our journal may provide those venues.

Editor (Fred Bonato): The new Editor-in-Chief thanked the journal staff and Editorial Board for help in the smooth transition. He noted that his assistant, Sarah Pierce-Rubio, will be staying on at least until the end of next year. Dave Ludwig has stepped down as Statistician and was thanked for years of service. On April 25, 2009, there were 119 manuscripts in the pipeline, meaning manuscripts either assigned or under review. As of April 29, 2010, there were 108 in the pipeline. These numbers represent a snapshot comparison of the two dates. The mean number of manuscripts in the pipeline this year was 117 (based on weekly sampling). For the previous year the mean number of

manuscripts was 99. Overall, these numbers can be interpreted as indicating a somewhat stable level of submissions. (Further statistics available in report.)

Managing Editor (Pam Day): Feedback on blast e-mails has been positive. We are using a new paper as a cost savings measure. We are looking into social media. According to Ingenta, our journal ranks in the top 10 out of more than 13,530 titles for number of full-text downloads. For the period March 1, 2010, to March 31, 2010: *Aviation, Space, and Environmental Medicine* ranks 9th with 5592 downloads. These include downloads by our members.

Education and Training Committee (Eilis Boudreau): The committee has been very active. The "This is Aerospace Medicine" slide show is ready for approval and a room is available to view the show during the meeting. The Compendium of Aerospace Medicine Programs is now being updated quarterly and is posted on the AsMA website. She discussed MOC and who should determine how it is administered. It was decided the committee would work with ASAMS on this activity.

Aerospace Human Factors Committee (Tom Nesthus): Melissa Mallis' briefing package on the AsMA Position Paper "Fatigue Countermeasures in Aviation" is now available for download from the ASHFA website.

History and Archives (Stan Mohler): The Reinhart Endowment is being used to support videotaping of the "Greats in Aerospace Medicine" interview series. **Genie Bopp, Mark Campbell, Jan Stepanek, and Stan Mohler** are coordinating this effort.

Science and Technology Committee (Barry Shender): The Committee will have published 100 Science and Technology Watch columns in *Aviation, Space and Environmental Medicine* as of May 2010. The Watch has served as a forum for members to introduce and discuss these new concepts. Since January 2009, columns are no longer part of the News section and have been published in a format consistent with journal articles. The committee is also investigating using Camtasia to help capture audio to go with the PowerPoint Presentations at the upcoming Scientific Meetings.

Membership (Gloria Carter): The membership of the Aerospace Medical Association consists at this time of 208 Student/Resident Members; 649 Three Year Memberships; 252 Life Members; 46 Corporate Members; 1,084 Active Members; 47 Member and Spouse Memberships; 452 Emeritus Members; and 12 Sustaining-Technician Members, which gives current membership total of 2,750. Membership as of 1 January, 2009, was 2,770; membership as of 1 January, 2010, was 2,834. Gains outweighed losses for the period of 1 January 2009 to 1 January 2010.

Compared with the 2008-2009 year, we have cut down on the number of delinquent members and fewer members died. There is concern regarding the make up of the membership categories with so many moving to 3-yr and life memberships, which must be amortized over a long period, thereby diluting their impact on association coffers.

Membership Committee (Joe Ortega): The ad hoc committee recommends that we focus on member services and strengthening member satisfaction within AsMA. We will conduct a survey of our membership. Data analysis will determine the top areas of interest, needs, and desires of our members and will determine what they value most in their member-

ship with AsMA. The Membership committee will continue to work all avenues to increase Association membership and member participation.

Corporate and Sustaining Membership (Yvette DeBois): The committee and the affiliate of corporate and sustaining members have been very active over the past year.

The primary immediate objectives for the Corporate & Sustaining Membership Committee (CSMC) this cycle include: standardizing the process of new member solicitation with incorporation of the AsMA Home Office resources; supporting the seven benefits of affiliation for the Corporate & Sustaining Affiliate (CSA) members with an emphasis on advocacy and cultivating leadership; developing infrastructure geared for independent function of CSA with special emphasis on financial support of operations and functional presence on the worldwide web; supporting CSA leadership in preparation for the historic event of their first annual business meeting/luncheon. The Corporate Forum was moved from the November meeting to the May annual meeting and the Corporate Speakers Bureau is planned for Monday evening.

Communications Committee (Joe Dervay): The committee worked throughout the year to support the new membership database initiative. They will next work on a new updated website; a survey of members; creating social media contacts; and our enhanced blast e-mail capabilities.

Resolutions (David Gillis): Two draft resolutions addressing fatigue in flight crews of transport operations have been prepared for the business meeting. [Note: one on in-flight in-cockpit napping was returned to committee; one on prescription sleep medications passed.] He noted that we need to revamp the resolution process for electronic approval so that issues do not go "stale" awaiting approval.

WEDNESDAY

During the Wednesday Council meeting the following actions of interest occurred.

The two examinees who passed the Aerospace Physiology certification examina-

See COUNCIL, p. 812.



CORPORATE SPEAKERS BUREAU--The Corporate and Sustaining Affiliate held its speakers bureau on Tuesday, May 11, 2010. Jan Stepanek (left) receives a plaque from Marian Sides (right). Dr. Stepanek's presentation was "Commemorating the 40th Anniversary of Spaceflight and Aerospace Medicine at the Mayo Clinic." He explained the history of the clinic's involvement in Aerospace Medicine.

Opening Ceremonies--Phoenix 2010



OPENING CEREMONIES—(Top left and center) Crowd gathered for the Opening Ceremonies. (Top right) The Color Guard from Luke AFB, AZ, presented the Colors. (Above) Mountainside Middle School Band provided the music. (Left and Right) The Exhibit Hall, Membership, and Registration Areas were the places to meet colleagues.

For more Annual Meeting photos, check out the photo gallery on our website at www.asma.org on the Meetings page.

All photos by Pamela C. Day.



EXECUTIVE DIRECTOR RAYMAN RETIRES--(left) Incoming Executive Director, Jeff Sventek, and retiring ED, Russell Rayman, admire the plaque presented during opening ceremonies. (Center) AsMA President Robert Weien presents Dr. Rayman with the plaque. (Right) Dr. Rayman and two of his sons, Ariel and David, during opening ceremonies.

Minutes of the Aerospace Medical Association 81st Annual Business Meeting

Tuesday, May 11, 2010, Sheraton Phoenix Downtown Hotel, Phoenix, AZ



Bob Weien



Jeff Sventek

1. **Call to Order (Weien):** Dr. Weien called the meeting to order at 12:05 PM.

2. **Recognition of Past Presidents**

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. Weien thanked all those who supported him during his year as President and gave a brief overview of accomplishments. He cited the work of the Editor-in-Chief Search Committee that resulted in the selection of Dr. Frederick Bonato as the new Editor-in-Chief of *Aviation, Space and Environmental Medicine*. Dr. Weien also cited the work of the Executive Director Search Committee that resulted in the selection of Jeffrey C. Sventek as the new Executive Director.

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

Mr. President, officers, and members of AsMA, it is my pleasure to report that the previous year has been an active one. As is obvious by my presence here, we said goodbye to Dr. Russell Rayman as our Executive Director after 18 years of dedication and service to AsMA. He leaves a history of accomplishment and leadership as the Executive Director. He will be a difficult act to follow, but I will work hard to continue providing our Association with the leadership and day-to-day operational support you deserve. Thank you, Dr. Rayman.

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 1,374 attendees for the meeting. Of that total, 1,009 were registered in advance of the meeting and 365 attendees registered here on site. Many of you are aware that the AsMA Home Office transitioned to a new Association management database system called IMPak this year. This is a rich management system with a robust suite of management modules. The management system is a web-based software program that allows the Home Office staff to access the database from anywhere an internet connection can be achieved. One of those modules is used to register people for meetings. We established an Advanced Registration process in January 2010 to allow for on-line registration and payment. This process was quite successful but will require some modifications prior to the 2011 advance registration process. We anticipated a larger than normal on-site registration this year and the numbers are proving that is the case. We did not anticipate the slow internet speeds and the large amount of data that would have to be entered manually for on-site registration. These factors significantly slowed the on-site registration process and required registrants to spend an inordinate amount of time standing in the cueing line. For that, I apologize and I promise we will work feverishly to correct this process prior to our 2011 meeting in Anchorage, AK.

There are 35 companies exhibiting with us this year using 46 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.

Finally, I am required to report that the Aerospace Medical Association experienced a significant financial loss in 2009. I will leave the details to our Treasurer to explain but on December 31, 2009, the Aerospace Medical Association reported a loss of \$341,568.00. The Executive Committee and I are working aggressively to identify areas for improving the Association's financial status.

6. **Report of the AsMA Foundation (Vanderploeg):** Dr. Vanderploeg reported total assets for the Foundation at \$56,750. This year's winner of the Mohler Scholarship is Dr. Sasi Jeevarathinam, completing the Diploma in Aviation Medicine course at King's College, London, UK.

The Foundation funds the Fellows Group scholarship through a committee led by Dr. Melchor Antuñano and the 2009 winner of the \$1,500 scholarship was Dr. Nicole Powell-Dunford. The Foundation's Board of Directors met on Sunday, May 9, 2010, and elected two new board members – Mr. Roberts Ellis, Group President of Wyle Integrated Science and Engineering, and Mr. William Mitchell, President and CEO of Environmental Tectonics Corporation. The Foundation Board of Directors re-elected seven Board members with staggered terms. Dr. Vanderploeg encouraged all to consider donating to the Foundation.

7. **GOVERNANCE (Sides)**

- **Committees**

- o **Nominating (Hastings):** Dr. Hastings read the proposed slate as listed below. A motion to approve the slate of new officers passed: President-elect: Fanancy Anzalone; Vice-Presidents: Susan Northrup and Philip Scarpa; Members-at-Large – 2013: Richard Bachmann, Charles Fisher, Robert Johnson, David Rhodes. In addition, Gabor Hardicsay will replace Fanancy Anzalone 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 February issue of *Aviation, Space and Environmental Medicine*, p. 160. Each proposed change was presented, discussed, and voted upon by the members. All proposed changes were passed.

- ¶ **Articles of Incorporation (Sventek):** The Executive Director reported the proposed changes to the AsMA Articles of Incorporation were published in the October issue of *Aviation, Space, and Environmental Medicine*, p. 913. The proposed Articles of Incorporation changes are designed to facilitate application for IRS 501(c)(3) status. The changes were presented, discussed, and voted upon. All proposed changes were passed.

- o **Finance (Merchant):** Dr. Merchant explained the multiple factors that resulted in the \$341,568 loss for the Association in 2009. A series of unexpected increased expenses combined with reduced revenues as a result of decreased membership, poorly attended annual meeting in Los Angeles, and reduced journal subscriptions produced most of the 2009 financial loss. There were also several one-time accounting adjustments made as a result of changing accounting firms that resulted in over \$100,000 of the loss. Several recommendations for improving the financial status of the Association were discussed and will be reviewed by the Executive Committee.

8. **REPRESENTATION AND ACVOCACY (Manning)**

- **Committees**

- o **Resolutions (Gillis):** Two resolutions on Aircrew Fatigue Countermeasures were presented.

- ¶ **In-flight In-Cockpit Napping:** Therefore be it resolved that the Aerospace Medical Association strongly recommends that air transport operators establish policies and procedures to ensure adequate preflight rest for crew, and that regulatory agencies, in coordination with aerospace medical experts, determine the criteria for use of in-flight, in-cockpit napping where safe, in extended flight operations.

- Concerns were raised with the resolution and a motion carried to send it back to the Resolutions Committee for additional work.

- ¶ **Prescription Sleep Medications:** Therefore be it resolved that the Aerospace Medical Association strongly recommends that regulatory agencies, in coordination with aerospace medicine experts, in addition to the established need for adequate crew rest, determine criteria for the safe adjunctive use of prescription sleep medications for off-duty/layover crew use.

- A motion was made and carried 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 (Dowdall):** Martin Hudson reported for Nigel Dowdall. There were no action items at this time. During 2009 the committee has focused on cabin air contamination, cabin crew medical fitness, and developed AsMA's comments on the World Health Organization's draft generic risk assessment model for aircraft disinfection with chemical insecticides.

- o **Communications (Dervay):** Dr. Dervay reported there were no open action items. He presented an exciting opportunity to work with the University of Texas Medical Branch Aeromedical Grand Rounds program that might allow AsMA members to participate in the monthly Grand Rounds training programs and obtain CME credit for participating.

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

- **Committees**

See MINUTES, p. 807

MINUTES, from p. 806.

o Aerospace Human Factors (Nesthus): Three panels were sponsored at this meeting. Don White assumed the Chair from Tom Nesthus. Planning has now begun for panels at the 2011 meeting in Anchorage.

o Aviation Safety (Cimrmancic): One panel was sponsored at this meeting. Planning has begun for panels at the 2011 meeting in Anchorage.

o Education and Training (Boudreau): The "This is Aerospace Medicine" slideshow was approved by the members. 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. Jennings was thanked for providing historical movies for our annual scientific meetings. The committee has begun the Reinhartz video interviews and will continue over the coming months.

o Science and Technology (Shender): Four panels were sponsored or co-sponsored at this meeting. More than 100 Science and Technology Watch columns have been published in the journal. A process for collecting and distributing slide and poster presentations was developed and is being used during this meeting. Presentations will be posted to the AsMA website following the meeting.

10. MEMBER SERVICES (Silberman)

- Committees

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

o Corporate and Sustaining (DeBois): There are 45 members. The Corporate Forum, traditionally conducted in November each year, was moved to coincide with the Annual Scientific Meeting in an effort to broaden the audience.

o Membership (Ortega): Membership is currently at 2,770, a slight decrease from 2009. The Committee will conduct a membership survey this summer to evaluate membership trends.

11. INTERNATIONAL SERVICES (Singh)

- Committee

o International Activities (Hardicsay): Committee recommended a half-page space in the journal every other month dedicated to international activities and a request to add upcoming international events to the Announcements section of the AsMA webpage.

12. Unfinished and New Business: None
13. Adjourn: The meeting was adjourned at 2:15 PM.

Respectfully submitted,

Jeffrey C. Svntek, M.S., CAsP, Executive Director

Arleen Saenger, M.D., M.P.H., Secretary

Meetings Calendar

September 26–29, 2010; American Academy of Otolaryngology-Head & Neck Surgery Annual Meeting and OTO Expo 2010; Boston, MA. Info: www.entnet.org/annual_meeting/index.cfm.

October 7-9, 2010; CAMA Annual Scientific Meeting; Pensacola, FL. To be held at the Crowne Plaza Pensacola Grand Hotel. Info: www.civilavmed.com/Meeting_Events.htm.

October 10-14, 2010; 58th International Congress of Aviation and Space Medicine; Marina Bay Sands, Singapore. Info: www.icasm2010.com.

October 21–24, 2010; American Academy of Environmental Medicine's 45th Annual Scientific Meeting; Hilton La Jolla Torrey Pines, San Diego, CA. Info: <http://www.aaemonline.org/CFP.html>.

October 24–28, 2010; American Osteopathic Association's OMED 2010; Moscone

Convention Center, San Francisco, CA. Info: <http://www.do-online.org/> or contact glapin@osteopathic.org.

October 27-30, 2010; XXVII International Meeting of Aerospace Medicine; Dorado Pacifico Hotel, Zihuatanejo, Guerrero, Mexico. Info: Luis Amezcua, lamezcua@prodigy.net.mx; or visit <http://www.amma.org.mx>.

November 8-10, 2010, 48th Annual SAFE Symposium, Town & country Resort and Convention Center, San Diego, CA. Info: <http://safeassociation.com>.

November 6–10, 2010; 138th Annual Meeting & Exposition of the American Public Health Association; Denver, CO. Info: <http://www.apha.org/meetings/>.

February 16-19, 2011; Preventive Medicine 2011; San Antonio, TX. American College of Preventive Medicine's Annual Meeting. Info: www.preventivemedicine2011.org.



TEXAS

44th UHMS Annual Scientific Meeting

June 15-18, 2011



**Undersea & Hyperbaric Medical Society
Office of Naval Research
NAVSEA**

www.uhms.org



Honors Night Reception and Banquet



PAST PRESIDENT'S PLAQUE--Dr. Marian Sides (left) presents outgoing president, Dr. Bob Weien, with the crystal plaque.



PAST PRESIDENT'S PIN--Gail Weien "pins" her husband, Bob, with the AsMA President's pin.

President's Citations

AsMA president, Robert Weien, M.D., (below) presented citations to Sarah Nunneley, Editor, the Editorial Search Committee, and the Executive Director Search Committee.

All Photos by Pamela Day.



JOURNAL IN SPACE--Michael Barratt, M.D., presents Dr. Weien with a copy of our journal which he took with him on the Soyuz TMA-14/Space Station Missions 19/20.



ASMA FELLOWS CLASS OF 2010—This is the class of 2010 Fellows: Ahmet Akin, Anthony Artino, Richard Beane, Michelle Bryce, James W. Butler, Clayton Cowl, Ioannis Diamontopoulos, Bryan Funke, Karen Heupel, Kenneth Knight, James Laub, Margaret "Peggy" Matarese, Jerry Owen, Eduard Ricourte, and Paul Young. Those present at the Honors Night Ceremonies are pictured here with the Chair of the Fellows Group, George K. Anderson (back row, right).



Home Office Staff, Stan Mohler and Eileen Hadbavny, Wing Members, Jim Webb and Fred Bonato. For more photos of the meeting, check out the photo gallery on our website!

AEROSPACE MEDICAL ASSOCIATION HONORS NIGHT AWARDS PHOENIX, AZ, MAY 13, 2010

All photos by Pamela C. Day

Robert Weiein, M.D., 2009-2010 President of the Aerospace Medical Association, presented awards to 17 outstanding physicians, researchers, and nurses during the Honors Night ceremonies at the 81st Annual Scientific Meeting, May 13, 2010, at the Sheraton Phoenix Downtown Hotel, Phoenix, AZ. Dwight Holland, M.D., Ph.D., the Chair of the Awards Committee, read the citations. The names of the awards' sponsors and representatives, when present, are printed in parentheses. The President's Citations were also presented during the ceremonies.



RAYMOND F. LONGACRE AWARD
Norbert O. Kraft, M.D.
(Jeffrey Sventek representing Genevolve Vision Diagnostics)



LOUIS H. BAUER FOUNDER'S AWARD
Melchor J. Antuñano, M.D., M.P.H.
(Clayton Cowl, M.D., Mayo Clinic)



WON CHUEL KAY AWARD
Yehezkel "Geoff" Caine, M.D.
(Dr. Oh Jung Hyub, Aerospace Medical Association of Korea)



JOHN PAUL STAPP AWARD
Robert D. Banks, M.D., B. Eng.
(George K. Anderson, M.D., Environmental Tectonics Corp.)



MARIE MARVINGT AWARD
Lt. Col. Anthony P. Tvaryanas, USAF, MC
(Alain Martin St.Laurent, French Aerospace Medical Association)



MARY T. KLINKER AWARD
Col. Eleanor C. Jarrett, USAF, NC
 (Les Sherman, Impact Instrumentation)



JULIAN E. WARD MEMORIAL AWARD
Maj. Kevin J. Bohnsack, USAF, MC
 (Col. Margaret Matarese, USAF, MC,
 Society of USAF Flight Surgeons)



THEODORE C. LYSTER AWARD
Warren S. Silberman, D.O., M.P.H.
 (Guy Banta, Eagle Applied Sciences)



HARRY G. MOSELEY AWARD
Susan P. Baker, M.P.H. (Dennis F. Shanahan accepting)
 (Jeffrey Sventek representing Lockheed Martin Corporation)



ERIC LILJENCRANTZ AWARD
Larry P. Krock, Ph.D.
 (Aerospace Medical Association.)



BOOTHBY-EDWARDS AWARD
Dougal B. Watson, M.B.B.S., B.Sc.Med., DipAvMed
 (Jeffrey Sventek representing Harvey W. Watt & Company)



KENT K. GILLINGHAM AWARD
Brian P. Self, Ph.D.
 (Wolfgang Lindlbauer, AMST)



JOHN A. TAMISIEA AWARD
Guillermo J. Salazar, M.D., M.P.H.
 (David Millett, Civil Aviation Medical Association)



ARNOLD D. TUTTLE AWARD
Desmond P. Connolly, Ph.D., M.A., M.B.B.S.
 (Bob Ellis, Sr. VP, Wyle Laboratories)



SIDNEY D. LEVERETT, JR., ENVIRONMENTAL SCIENCE AWARD
Lt. Col. Valerie E. Martindale, USAF, BSC
 (George K. Anderson, M.D., Environmental Tectonics Corp.)



JOE KERWIN AWARD
Michael R. Barrett, M.D.
 (Joseph P. Kerwin, M.D., Wyle)



JOHN ERNSTING AWARD
Frank S. Pettyjohn, M.D.
 (George K. Anderson, M.D., Environmental Tectonics Corporation)

COUNCIL, from p. 804.

tion, **Ross M. Canup** and **Thomas E. Sather**, were approved. The "CAsP" indicating Certified in Aerospace Physiology was approved as a registered trademark and is now authorized to be used by those approved for certification in Aerospace Physiology by the Aerospace Medical Association. **Dr. James Webb** was appointed as the Council representative to the Aerospace Physiology Certification Board; **Maj. Troy Faaborg, USAF, BSC**, is the new Chair of the Aerospace Physiology Certification Board; and **CDR Deborah White, MSC, USN**, became a member of the Aerospace Physiology Certification Board.

In addition, the "This is Aerospace Medicine" slideshow was approved for use.

The following members of Council were approved to sit on the Executive Committee: **Joe Dervay, Chuck DeJohn, and Richard Bachmann. Royce Moser** will continue serving as the AsMA Parliamentarian.

The following are the Constituent Organizations' Council Representatives:

Aerospace Human Factors Association – Lt. Col. Raymond King
Aerospace Nursing Society – Lt. Col. Eleanor Carolyn Jarrett
Aerospace Physiology Society – Vincent W. Musashe
Airlines Medical Directors Association – Gordon S. Landsman
American Society of Aerospace Medicine Specialists – Hernando "Joe" Ortega
International Association of Military Flight Surgeon Pilots – William Scott
Life Science & Biomedical Engineering Branch – Lloyd Tripp
Society of United States Air Force Flight Surgeons – Timothy Jex
Society of United States Naval Flight Surgeons – Charles Ciccone
Space Medicine Association – Jan Stepanek
United States Army Aviation Medical Association – Justin Woodson

56th Bauer Lecture: Einar Enevoldson

For the 56th Annual Louis H. Bauer lecture, Einar Enevoldson, Director of the Perlan Project, took us on a journey "Soaring Above All Clouds." Mr. Enevoldson had always wanted to study clouds, so he became a glider pilot. Using the powerfully rising and sinking air in mountain waves, gliders regularly climb to



BAUER LECTURE--Einar Enevoldson (center) receives a certificate and honorarium from Bob Ellis (right) representing the sponsor, Wyle, while AsMA President Bob Weien looks on (left).

Aerospace Medicine Student/Resident Organization – Alex Garbino

The following are the Constituent Organizations' Nominating Committee Representatives:

Aerospace Human Factors Association – Valerie E. Martindale
Aerospace Nursing Society – Diane L. Fletcher
Aerospace Physiology Society – Donna M. Murdoch
Airlines Medical Directors Association – Thomas B. Faulkner
American Society of Aerospace Medicine Specialists – Daniel A. Shoor
International Association of Military Flight Surgeon Pilots – Dwight Holland
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 – Frank Chapman
Space Medicine Association – Denise L. Baisden
United States Army Aviation Medical Association – John S. Crowley

Installation of the New President—Dr. Weien "passed the gavel" to Dr. Sides.

The next meeting will be held in Alexandria on November 17, 2010, just prior to the Scientific Program Committee meeting on November 18 and 19, 2010.

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. It should also be noted that a number of surveys will be sent to members this year including the journal, member services, communications, and exhibits.

high altitudes where the views of clouds are spectacular. He founded the Perlan Project and the set out to beat the record for gliding at altitude, and record meteorological data in the process. The late Steve Fossett invested in the project. After designing, constructing and testing designed a special sailplane, in 2005 it was shipped to El Calafate, Argentina, a small town at 500 south latitude. Unfortunately, five attempts in a 3-week period, none in favorable weather conditions, were all unsuccessful.



MOUNTAIN WAVE PROJECT--Einar Enevoldson, the Armstrong lecturer, Sally Nunneley, Editor-in-Chief Emerita, and Juergen Kneuppel discuss the project.

The team went back in 2006 to try again. This time the weather was favorable, but during the first attempt on 28 August Steve Fossett's pressure suit inflated prematurely and excessively at 33,000 feet, in a strong climb, and the flight was aborted. The next day, on 29 August, after one of the pressure suit regulators had been changed, the weather conditions were still favorable, so the team made another attempt. After a 4-hour climb, Enevoldson and Fossett reached the record altitude of 15,447 m (50,671 feet)—the first ever glider flight into the Earth's stratosphere. The previous record was shattered by 1,662 ft (507 m). (This claim was subsequently ratified by Federation Aeronautique Internationale as 15,460 meters [50,727 feet]). To find out more about the Perlan project, you can become a friend on Facebook! There is an overview of the project available on Wikipedia at http://en.wikipedia.org/wiki/Perlan_Project.

45th Armstrong Lecture: David Hemenway

The 45th Annual Harry G. Armstrong Lecture was delivered by David Hemenway, Ph.D., of the Harvard School of Public Health. His topic was "Successes and Heroes of Injury Prevention." During the lecture Dr. Hemenway highlighted the achievements of several notable as well as lesser known champions of public health. These included Maurice Hilleman, who invented many vaccines including MMR, and Hugh deHaven, an American pilot, who invented the three-point seat belt. Dr. Hemenway highlighted our own John Paul Stapp, who was at one time the fastest man on Earth and who had the foresight to realize that more pilots died in auto accidents than in aircraft accidents and began work on auto safety and testing and invented the crash test dummy. Another hero, Andrew McGuire, was responsible of the fire safety standards for children's pajamas. Hemenway noted the many improvements in public health made over the years such as changing the rules in the sport of football to prevent injury, the safety standards implemented during the building of the Golden Gate Bridge leading to fewer injuries and ahead of schedule opening, the changing values for a healthier worker safety culture, and the reduction in the stigma of mental health and domestic abuse in the armed forces.



ARMSTRONG LECTURE--David Hemenway (right) accepts a certificate and honorarium from George K. Anderson, representing the sponsor ETC.



WELCOME RECEPTION--(above and top center) Sponsored by Mayo Clinic, the Welcome Reception kicked off the meeting Sunday evening with a taco bar.



INTERNATIONAL RECEPTION-- (Above and bottom center) ETC sponsored the event to honor our international members. The food and the weather on the patio were delightful.

Society of U.S. Naval Flight Surgeons Awards May 2010



Graybiel Award -- LT Marc Taylor, MSC, USN, receives the Ashton Graybiel Award for Outstanding Contributions to Medical Literature.

The Society of U.S. Naval Flight Surgeons (SUSNFS) held its luncheon and award ceremony on May 10 in Phoenix, AZ. The award winners are pictured on this page with the exception of the winner of the Robert E. Mitchell Lifetime Achievement Award: Dr. James Baker.



Carter Award -- CDR Mike Acromite, MC, USN, was the 2010 recipient of the Sonny Carter Memorial Award.

U.S. Naval Aerospace Experimental Psychology Society Awards (Below)



Lifetime Achievement -- Dr. William F. Moroney receives the Paul R. Chatelier Lifetime Achievement Award.



Leadership Award -- LCDR Henry Phillips, MSC, USN, is awarded the Michael G. Lilienthal Leadership Award.



Excellence in Research -- Dr. Eric Muth was the winner of the Robert E. Kennedy Award for Excellence in Aviation Research.

U.S. Army Aviation Medicine Association Awards



Outstanding Aeromedical Achievement - COL Keith Hiatt from USAREIM, Natick, MA (left), and MAJ(P) Steven Gaydos from USAARL, Fort Rucker, AL (right), receive the Outstanding Aeromedical Achievement award for their work from COL Steve Bernstein, the outgoing president of AAMA.

During the U.S. Army Aviation Medicine Association luncheon, AsMA President Dr. Weien addressed the audience. The awards ceremony followed. They concluded with COL John Albano assuming the role of President and welcoming new President-Elect (VP), MAJ Nicole Powell-Dunford from the U.S. Army School of Aviation Medicine.

Other awards given at the luncheon to recipients who were not present included:



The **Spurgeon Neel Award** was given to LTC Edward Bailey from the 10th Mountain Division, Fort Durm, NY.

The **Theodore Lyster Award** was given to MAJ Daniel Bigley from the 12th Combat Aviation Brigade, Illesheim, Germany.

The **Aerospace Medicine Specialist of the Year** award was given to LTC Shean Phelps from USAARL, Fort Rucker, AL.



Order of Merit - Mr. Martin Quattlebaum, from the U.S. Army Aeromedical Activity, Fort Rucker, AL, receives the Order of Aeromedical Merit from COL Steve Bernstein.



HALEY AWARD (Right) -- Dr. Bjorn Ang of Sweden receives the Haley Award for his paper "Neck/shoulder exercise for neck pain in Air Force helicopter pilots: a randomized controlled trial" from COL Steve Bernstein.

NEW ON THE WEB!

- News Online in html
- 81st Annual Meeting Photo Gallery

www.asma.org



European School of Aviation Medicine

Training courses 2010/2011 for JAA/FAA-Aero Medical Examiners

AME class 2	
Basic course	18 – 26 September 2010
AME class 1	
Advanced course	4 – 12 December 2010
Aviation Medicine/Travel Medicine	
Diploma course	19 – 27 March 2011
FAA-Refresher	26 – 29 August 2010

Venue: Hotel Dorint, Wiesbaden/Germany

Application forms and further details under www.flugmed.org or www.eusam.org

10 - 14 OCTOBER 2010
SINGAPORE

10 - 14 OCTOBRE 2010
SINGAPOUR

A New Era of Relevance for Aerospace Medicine



58th International Congress of
Aviation & Space Medicine

Singapore 2010

58^{ième} Congrès International de **Médecine Aéronautique et Spatiale**



www.icasm2010.com

In conjunction with
7th Asia Pacific Congress of Aerospace Medicine
en conjonction avec
7^{ième} Congrès de Médecine Aérospatiale "Asia Pacific"

SPACE MEDICINE ASSOCIATION NEWS

Send information for publication on this page to: **Jan Stepanek, M.D., M.P.H.**
13400 East Shea Boulevard
Scottsdale, 85259, AZ
Tel: 480-301-4481; stepanek.jan@mayo.edu

From the President:

Dear Colleagues,

The time since our Aerospace Medical Association Conference in Phoenix has passed very swiftly and early planning for the next program and our Space Medicine Association (SMA) activities and programmatic points are well underway. As your new president I would like to engage in more direct communication with you, our SMA members.

Therefore, it is of key importance that we have all of your e-mail and contact information available to our secretary, Casey Pruett, and our executive committee, which will greatly facilitate our direct communication with you, our members.

We are planning to conduct a membership survey during this year to make sure that we provide you with the services that you need and find opportunities to serve you better. This survey will be distributed via e-mail well before the Scientific Program Committee meeting of the Aerospace Medical Association in Alexandria in November of this year, such that the executive committee can effectively use that time to discuss any needed changes in response to our members needs.

I want to also highlight the Space Medicine Association website that is available to you as members and is a tremendous resource. You can access the website at the following URL: <http://www.asma.org/Organization/smb/smb.htm>. I am grateful to Dr. Mark Campbell for his dedication as our webmaster and archivist; without his efforts and contribution of resources this excellent tool and its content would not be possible.

I am looking forward to a productive and stimulating year as your president and encourage you to share any ideas or suggestions that you have with me, Casey Pruett, or one of our elected officers.

President: Jan Stepanek, M.D.

stepanek.jan@mayo.edu

Secretary: Casey Pruett

casey.pruett@wylelabs.de

Best wishes and kind regards,
Jan Stepanek, M.D., M.P.H.

The SMA Jeff Myers Young Investigator Award

The Space Medicine Association Jeff Myers Young Investigators Award 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 92 contestants, are richly talented and diversified.

The winner of the 2010 SMA JM YIA was Kathleen M. Garcia, B.S., RDCS, FASE, RVT (these are her echocardiography credentials). Her paper was entitled "Right Ventricular Tissue Doppler in Space Flight." Kat began her adventure as a Missouri farm girl. After earning her B.S. at Missouri State University, she won a stipend to study various types of ultrasound, including echocardiography. She continued to develop her skills until she was a local expert utilizing new techniques to assist with surgical vascular repairs. Kat was interested in the space program from an early age and jumped at the chance when she saw an ad at JSC for an ultrasound expert. With her skills, it is not surprising that she got the job. Always striving to be her very best, Kat took a hiatus to run Dr. Debaeky's echocardiography lab at the Texas Heart Institute. At a new level she then returned to JSC and joined the Wyle Advanced projects team. It is there that Kat chose to employ the tissue Doppler in studying the right ventricular function in spaceflight and developed a technique that proved the best yet for the difficult environment and restrictive experimental conditions of spaceflight. Kat was recently promoted to senior scientist!

The first runner up is Stephen Houston MB, a graduate of the King's College London Diplomate of Aviation Medicine program, as well as an airline captain flying for British Midland Airways. The second runner up is Charles Mathers, M.D., from the UTMB Aerospace Medicine Residency at Galveston, TX. Other finalists include: Sanaa Mohasib Abady, M.B., from Egypt; Melissa Ziarnick from New Mexico State Univ.; Dr Linsey Wagner from Mayo Clinic Scottsdale, AZ; Maj. Sean Jersey from Beale AFB, CA; Ryan Davis, M.D., from Brooks City-Base, TX; and Eric Deussing, M.D., from USUHS Bethesda, MD.



YOUNG INVESTIGATOR--Kathleen Garcia receives the award from Pat McGinnis.

Each year it seems I am reminded of important life lessons by these Young Investigators.

As Kat's story shows, every team member makes an important contribution and any one of them can give us a great discovery. And even though we may have come from humble beginnings, we can soar to great heights!

It was yet another great pleasure as I watched former Young Investigators Michelle Bryce and Karen Huepel receive their Fellows ribbons on Honors night. So with another year passing by and a very tough one ahead for our space program, I pause and reflect. It may be true that politics may present a challenge. But the dream will live on. And if you can dream it, you can do it. After all, we have Kat, and Stephen, and Charles, and all the other Young Investigators on our side; and with a team like that, we're going places!



SMA AWARDS--(Top) Paul Kuklinski receives the President's Award from Pat McGinnis; (Center) Laura Drudi receives the Jeff Davis Scholarship Award; (Bottom) Pat McGinnis receives the Past President's plaque from Jan Stepanek. Not pictured, Irene Long received the Strughold Award.

Send information for publication on this page to: **Lt Col Andy Woodrow**
63 Main Circle Dr, Ste 3
Randolph AFB, TX 78150
COMM 210.652.9154
andrew.woodrow@randolph.af.mil

AEROSPACE PHYSIOLOGY REPORT

High Points in Aerospace Physiology: A USAF Perspective, Part II

*Maj. Yvonne Brandt, USAFR, BSC
Aerospace & Operational Physiology Programs,
Office of the Air Force Surgeon General,
Arlington, VA*

This is the second part of the series that documents the high points of Aerospace Physiology history. The first installment (ASEM 2010; 81(5):535) took us from the beginning of flight and the U.S. War Department issuing Special Order No. 243 to the Army Surgeon General Major Theodore Lyster, M.D., which instructed him to "...take whatever steps needed to establish the practice of aviation medicine." Dr. Lyster established a lab which evolved into SAM (School of Aerospace Medicine) and tracked flight training from New York to Texas.

The early 1920s ushered in flight medicine and technology at SAM. In 1926, the transition from wood and fabric aircraft to metal monoplanes had begun. The Boeing B-17 bomber was on the horizon and caused aviators and engineers to ponder questions of how man could survive at altitudes up to 30,000 ft traveling at speeds of 230 mph. One of the most pressing concerns was the effect of a possible rapid decompression up to 30,000 ft. Because the lab was dissolved from the SAM mission in 1922, there was no authoritative source to investigate the risks associated with the technological advances. A young flight surgeon named Malcolm C. Grow at Wright Field identified the urgent need for a lab. In 1933, Maj. Grow convinced the Materiel Division to grant him a lab at Wright Field. Maj. Grow recruited Capt. Harry George

Armstrong, who replaced Grow as he went off to Washington to convince the Surgeon General and other general officers of the importance of the Wright Field lab. By 1935, they had established the Physiological Research Unit as a branch of the Equipment Lab at Wright Field. Captain Armstrong whistled a happy tune as he received a new low pressure chamber and found the old one left from Lyster when SAM was packaged up and sent to Texas. The new experimental lab at Wright Field was ready by 1937. The new facility boasted a centrifuge and air conditioning (a novelty at the time).

Interestingly, those at SAM at Randolph watched the growth at Wright Field with raised eyebrows. Looking back to Special Order 243, the lab mission was technically theirs even though it had been dissolved years earlier. While SAM was not a research facility, it still took on projects to resolve aircrew issues as they emerged. Fortunately, a friendly competition developed between the two facilities and research flourished. During this period, Armstrong published more than 30 papers and "Principles and Practice of Aviation Medicine," which became the standard authority on aerospace medicine and the primary source in every flight surgeon's library for decades after it was published. Armstrong also personally accomplished a number of death-defying experiments. He demonstrated high altitude egress, flew on the experimental XC-35 with an experimental high pressure cabin, and ascended in the Explorer II balloon.

The feeling that WWI had been "a war to end wars" led to monumental aerospace discoveries that contributed to the "...survival of Anglo-American civilization in another great war" (Peyton G, p. 95). During the years of WWII, specifically in 1942, the

Air Surgeon instituted the "Altitude Training Program." It was an AF-wide training program that all aircrew were required to complete. Wartime expansion of the program allowed for 45 units staffed with 120 Ph.D.s and 88 M.D.s. The program was designed to familiarize aircrew with new fangled oxygen equipment and instruction in the hazards of flying in a low pressure environment. As time went on more elements were added to training, such as night vision training, lectures on G-forces, and heat stress. The end of WWII resulted in the disestablishment of the program in 1945. With no work left, the M.D.s went back to private practice and the Ph.D.s went back to teaching.

During the WWII post-war era, many changes were occurring as the AF became its own branch in September 1947. In 1949, Col. Alonzo Towner, now the Surgeon for the 8th AF, reactivated the Aerospace Physiology program. Reserve physiologists were canvassed for interest and found none due to their developing college teaching careers. Additionally, aircrew wanted instructors with more practical knowledge, leading to pilots being recruited to provide training and a new Medical Service Corps to supplement instructors should the pilots need to go back to flying. A few of the special projects working in support of the flyer included pressurized suits, "G" suits, Liquid Oxygen Systems, and the ejection seat.

SOURCES

1. Peyton G. 50 years of aerospace medicine – 1918 to 1968. Series No. 67-180. Washington DC: AFSC Historical Publications; 1967.
2. U. S. Air Force. Medical Service Digest, Vol. XXVII No.4, p.21-25.

RAM Bowl 2010

The RAM Bowl is in its third year. This was the first year that it was sponsored by ASAMS and competed in a regular session time slot during the AsMA meeting. There were a total of six teams competing this year: three from USAFSAM at Brooks City-Base, TX, and one each from Wright State University in Dayton, the Navy/Army program at Pensacola, and UTMB.

The RAM Bowl has grown from 2 participating residencies and audience participation of about 25 to full participation from the ASM physicians, all 4 residencies, and a standing room only crowd of over 200 in the largest conference hall at AsMA. The audience included all interested in aerospace medicine from medical students to General Officers sitting in the front row cheering on the competitors. At the ASAMS annual business meeting this year the mem-

bership approved funding for a reception to follow the RAM Bowl in Anchorage next year.



Ram Bowl Finalists: The UTMB (left) and Navy (right) teams were the finalists at this year's competition.



Ram Bowl Champs: This year's winners are the UTMB team, from left to right: Kathleen Samsey, a U.S. Army resident attending the UTMB M.P.H. program in aerospace medicine; Ronak Shah, Chuck Mathers, and Greg Shaskan, who are ASM residents at UTMB; and Dan Murray, who is a USAF resident attending the UTMB M.P.H. program in aerospace medicine.

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 81st Annual Scientific Meeting in Phoenix, AZ

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

P. Glenn Merchant, M.D., M.P.H.&T.M., has been selected by The American Board of Preventive Medicine (ABPM) as its next Executive Director. Dr. Merchant, currently ACPM's Secretary-Treasurer, will succeed James M. Vanderploeg, M.D., M.P.H., upon his retirement from the position on August 31, 2010. In this role, Dr. Merchant will serve as the Chief Administrative Officer of the Board responsible for carrying out all functions of the Board.

Most of Dr. Merchant's career has been spent in the Naval Service. He currently is Captain in the Medical Corps and serves as the Director of the Department of Defense Medical Examination Review Board at the U.S. Air Force Academy in Colorado Springs, CO. He served as Trustee of the ABPM from 1999 to 2007, including Chair of the Board from 2003-2007. "The medical profession is facing new challenges in improving the quality of medical care and demonstrating the enhanced value of board certification to our patients and the public at large," said Dr. Merchant. "I am looking forward to meeting the challenges and seizing the opportunities ahead."

Francisco Rios Tejada M.D., Ph.D., was promoted to Colonel of the Spanish Armed Forces Health Services. He has been confirmed as Head of the Department of Aviation Medicine at the Institute of Aviation Medicine in Madrid, Spain, better known by its Spanish acronym C.I.M.A.. This Aeromedical Center has a long tradition in the field of aerospace medicine, being founded in 1940 under the command of the Spanish Air Force, and for the last 7 years under the command of the Ministry of Defense (Military Health Services Inspectorate). The Institute is dealing not only with military aviation but civil aviation and supporting academy and industry in education and research.

CAPT Felix Tormes, MC, (FS), USN, was installed as president of the Flying Physicians Association, the national organization for physician pilots, at its annual conference in Kansas City, MO, on June 17, 2010. CAPT Tormes is an orthopaedic surgeon assigned presently to Naval Hospital, Pensacola, FL. He holds an instrument/commercial rating and has logged over 3500 hours as pilot in command. An FAA Aviation Medical Examiner, he holds membership in AsMA, the International Association of Military Flight Surgeon Pilots, and the Aeromedical Advisory Council at the Naval Aerospace Medical Institute, Pensacola FL.

Obituary Listing

AsMA recently learned that **Fabien Coriat, M.D.**, died in June. A citizen of France, Dr. Coriat was an Aviation Medical Examiner, a Diplomat of the American Board of Preventive Medicine certified in Aerospace Medicine, a Diplome Etudes Superieures d'Hygiene, a Lauréat de la Faculte de Medecine de Paris, and a Fellow of AsMA. He

was also a member of the Societe Francoise de Physiologie et du Medecine Aeronautiques et Cosmonautiques. During his lifetime, he served in the French Air Force and with Air France.

New Members

French, Jon, Prof., Ph.D., Daytona Beach, FL
 Gallagher, Michael, B.Sc., Medicine Hat, AB, Canada
 Greuner, Stephen, M.D., Charleston, SC
 McCormack, Terry, Capt., M.D., CF, Winnipeg, MB, Canada
 Porat, Moshe, M.D., Ness Ziona, Israel

IV Water Filter Developed by Scarpa & Team

*By Steven Sicheloff
 NASA's John F. Kennedy Space Center*

Dr. Philip Scarpa's team at Kennedy partnered with NASA's Glenn Research Center in Ohio to develop a device that filters microscopic contaminants, including heavy metals and toxins, out of drinking water to produce fluid as sterile as any made on Earth. This water filtration system got a major test during the STS-131 mission as it was called on to create water clean enough to be used intravenously (IV). This system could prove critical to future astronauts if they have a medical emergency while traveling far from Earth. It could also find earthbound uses by the mili-

tary, in remote locations, or in humanitarian relief efforts.

There are 115 medical conditions that could occur on the space station and would require IV fluids. For example, an astronaut with severe burns can require about 100 L of IV fluids for weeks, with 30 L needed in the first 3 days. One recent NASA study reported that a mission to Mars may need as much as 248 L of IV fluids on board. Currently there are 12 L of fluid stored on the space station. Even less severe conditions can deplete the stock quickly, especially if more than one astronaut is sick or injured. At more than 2 lb of weight per liter, IV fluids are very costly to take into space and have a limited shelf life.

Devising a workable filter system for space presented more hurdles than just removing contaminants successfully. Without gravity, the air in the system doesn't separate out from the fluid. This may form bubbles in critical areas, such as filters. If the filters are blocked, the water will not be screened. Scarpa's team devised the use of micron-sized filters to trap and squeeze out the bubbles from the system. By 2006, the team had developed a suitcase-sized device that filtered both drinking and dirty water, producing ultra-pure sterile water that meets all U.S. Pharmacopeia standards.

Based on that, the team from Kennedy and Glenn developed a flight-ready system. Dubbed "TVGEN" for IntraVenous Fluid Generation, it produces IV-grade water from available space station drinking water. The device is hooked up to an Iodine Crew Water Container on the station and water is transferred into an accumulator. Nitrogen from the station pressurizes the bag to push the water out of the accumulator and through several micron filters, a deionized packed resin filter, then another set of micron filters, and into an IV collection bag similar to the kind used in hospitals. The bag, which contains salt and a stir bar, thoroughly mixes the fluid and salt to form normal saline, like that used on Earth. After the solution runs into another collection bag to measure mixing uniformity, the sterile saline will be complete.

Dr. Scarpa also realizes the great potential benefit of this technology for applications right here on Earth, so he has been developing a small, handheld unit that could be used by the military in remote field operations, in submarines and on ships, and in medical relief efforts.

NSBRI Postdoctoral Fellowship Program Soliciting Applications

The National Space Biomedical Research Institute (NSBRI) is soliciting applications for its Postdoctoral Fellowship Program. Two-year fellowships are available in any U.S. laboratory carrying out space-related biomedical or biotechnological research that supports the NSBRI's goals. NSBRI research addresses and seeks solutions to the various health concerns associated with long-duration human space exploration.

Applicants must submit proposals with the support of a mentor and institution, and all proposals will be evaluated by a peer-review panel. The program is open to U.S. citizens, permanent residents, or persons with pre-existing visas obtained through their sponsoring institutions that permit postdoctoral training for the project's duration.

Detailed program and application submission information is available at www.nsbri.org/Announcements/rfa10-01.html. Notices of intent and applications must be submitted through the NASA Solicitation and Proposal Integrated Review and Evaluation System (NSPIRES). Notices of intent are due July 23, 2010, and the application deadline is August 18, 2010.

Questions may be directed to David A. Watson, Ph.D., NSBRI Postdoctoral Fellowship Program, e-mail: post-doc@www.nsbri.org, or phone: 713-798-7412.

INDEX TO ADVERTISERS

Aerospace Medical Association	
Corporate Members	ii
Information for Authors	Cover III
ETC	Cover IV
European School of Aviation814
ICASM814
UHMS807