

AsMA Strategic Plan and Business Plan

AEROSPACE MEDICAL ASSOCIATION EXECUTIVE COMMITTEE

VISION: *The international leader in aviation, space, and environmental medicine.*

MISSION: *Apply and advance scientific knowledge to promote and enhance health, safety, and performance of those involved in aerospace and related activities.*

GOALS:

1. Provide effective governance of the Association to maintain a sound financial structure to ensure organizational continuity

1.1 Develop, implement and maintain financial policies and procedures guidelines conforming with best business practices for non-profit organizations

- President-Elect (Governance) coordinates the development of draft guidelines by the Finance Committee with the support of the Executive Director. These guidelines will include an investment policy addressing the Association's short-term and long-term investment goals and objectives:
- President-Elect presents draft guidelines to Executive Committee (ExComm) for final review
- ExComm completes final review and implements guidelines
- Guidelines are reported by the President-Elect during the Council Meeting and the AsMA Business Meeting
- Guidelines are reviewed and updated annually by the ExComm (not later than September of every year)
- Executive Director and the Finance Committee monitor the investment manager's and portfolio's performance at least annually to ensure that the Association's goals and objectives are being met (not later than February of every year)
- Executive Director ensures the completion of an external annual audit of the Association's financial activities and provides a copy of the final report to ExComm and the Chair of the Finance Committee (not later than February of every year)
- Executive Director and the Finance Committee ensure the Association's compliance with the recommendations of the annual financial audit and provide status reports during ExComm meetings (August and February of every year)

2. Ensure the health and growth of the Association through effective governance and leadership

2.1 Integrate representatives from all constituent organizations into the Association's committees to pro-

mote opportunities for leadership development and interdisciplinary networking

- Executive Director and Vice-Presidents coordinate the compilation of an updated list of all Constituent Organization Officers with the support of all Committee Chairs
- Vice-Presidents coordinate with their respective Committee Chairs to contact the officers of each Constituent Organization and ask them to identify their official representatives for each committee
- Vice-Presidents report to ExComm the individual names of the official Constituent Organization representatives in all AsMA Committees
- Constituent Organization representatives initiate their participation in AsMA Committee meetings
- Executive Director updates annually the list of Constituent Organization representatives in each AsMA Committee (not later than September of every year)
- Executive Director updates annually the list of all Constituent Organization Officers (not later than September of every year)

2.2 Define specific roles and responsibilities for the Association's Vice Presidents and identify guidelines for their selection

- AsMA Past-President develops a draft and delivers it to current President (COMPLETED)
- Draft is presented to ExComm for discussion and initial revision (COMPLETED)
- President sends revised draft to Vice-Presidents for their final review and comments
- Vice Presidents provide their comments back to the President
- ExComm finalizes the definition of Vice Presidents roles and responsibilities and proceeds with their implementation
- President discusses with the Nominating Committee Chair the current criteria for selection of Vice Presidents. They assess the potential impact of the new definitions of Vice Presidents roles and responsibilities in the selection criteria for future Vice Presidents
- Nominating Committee Chair presents to Council a proposal for changes to the criteria to select future Vice Presidents
- Executive Director provides all incoming Vice Presidents a written description of their specific roles and responsibilities following the AsMA Annual Business Meeting (May of every year)

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- Incoming AsMA President personally discusses with all Vice Presidents their individual roles and responsibilities during the first ExComm Meeting (August of every year)
- ExComm reviews and updates the Vice President roles and responsibilities and the guidelines for their selection at least every three years (during the February ExComm meeting)

2.3 Demonstrate sustained growth in the Association's membership

- Vice President for Member Services and the Vice President for International Activities coordinate the development and implementation of a plan by the Membership Committee in collaboration with the International Activities Committee to increase membership by 10% and decrease losses by 15% within one year of the plan's implementation
 - + Develop an "Every Member Sign-Up a New Member" letter describing the campaign and send it to Executive Director for distribution to the entire membership via e-mail or by normal postal service when no e-mail address is available
 - + Send a letter to all members (national and international) to identify those who give lectures/presentations at educational institutions (universities, colleges, etc.) and would be willing to discuss the Association's membership benefits (including a free copy of the Clinical Aviation Medicine Book) with students and faculty during formal and informal functions
 - + Send a letter to all members (national and international) to identify those who are registered in other professional organizations and would be willing to discuss the AsMA's membership benefits (including a free copy of the Clinical Aviation Medicine Book) with the members of those associations
 - + Publish quarterly membership status reports in the ASEM journal
 - + Membership Committee representatives will man the Association's membership booth at all future AsMA meetings. They will actively pursue the recruitment of new members throughout the meetings, ensuring that prospective members are escorted to the booth to complete membership applications. This more proactive approach to recruiting will rely less on individuals coming to the membership booth by themselves, but will rely on Membership Committee personnel to get them to come to the booth
 - + Membership Committee members will be requested to obtain recruitment ideas/methods from other professional organizations. These will be discussed at the next Membership Committee meeting and those methods deemed promising will become part of the Committee's active recruitment process
 - + Vice-President for International Activities recruits at least 2 members from those nations that are not represented in our membership, will designate them as voting representatives on the International Activities Committee, and will encourage them to recruit other colleagues as part of the overall membership drive
 - + Develop a draft proposal for the establishment of a new "membership category" offering special incen-

tives for international candidates with limited financial resources, and present it to ExComm

- + Develop and implement "Operation TEL-A-MEMBER" to decrease membership losses. Executive Director will produce a list of all delinquent members. AsMA volunteers recruited by the Membership Committee will spend a day at AsMA HQ, calling those on the list, inquiring as to the reason for their delinquency, and encouraging them to rejoin the ranks of active membership status. Those that cannot be contacted by telephone will be sent an e-mail or a letter (ongoing)

- Vice President for Member Services coordinates the development and implementation of a plan by the Corporate and Sustaining Membership Committee with the support of the Executive Director to increase corporate membership
 - + Develop the infrastructure for a Corporate and Sustaining Membership Affiliate Organization
 - + Retain current corporate and sustaining membership. Conduct a telephone survey of existing corporate members regarding perceptions of membership benefits, solidify membership status, and renew commitment (ongoing)
 - + Increase existing corporate membership by 20% (8 new members). Circulate information on AsMA to prospects. Get referrals from existing members (ongoing)
- Vice President for Member Services coordinates the development and implementation of a plan by the Corporate and Sustaining Membership Committee to strengthen the Association's collaboration with aerospace corporate & industry leaders
 - + Review Mission Statement of the CSM Committee (completed)
 - + Develop corporate advisory process to Council
 - + Hold industry meetings for discussion of issues and market trends
 - + Propose the establishment of an Aerospace Dentistry AsMA Affiliate Organization
 - + Sponsor awards, research papers, AsMA events and industry-related articles
 - + Feature corporate members profile in ASEM journal
 - + Establish electronic corporate network oriented towards announcement of employment opportunities for interested Association members, news of corporate members, services, and products
 - + Develop a corporate website
 - + Strengthen interface with Aerospace Medical and Student Resident Organizations (AMSRO)
 - + Link websites among corporate members and AsMA

2.4 Upgrade the Association's website to optimize communications with membership and the public, and improve the quality of online services

- Vice-President for Representation and Advocacy will coordinate the upgrade of the website with the support of the Communications Committee, the Association's Website Master, and the Executive Director.
 - + User-Centered Design, Inc. demonstrates a

working prototype of the new website during the next Council Meeting

- + User-Centered Design, Inc. presents status report on final website development and implementation plan to ExComm
- + New website goes online
- + Executive Director sends a survey to all members to evaluate the value of the website improvements
- + ExComm evaluates the need for website upgrades/improvements on an annual basis (February of every year)

2.5 Implement the Association's Strategic and Business (Implementation) Plans and monitor progress

- ExComm implements a Business Plan with specific performance targets in support of the Association's Strategic Plan
- ExComm assesses the Association's progress towards the accomplishment of specific performance targets under each strategic goal and objective during the ExComm meetings (August and February of every year)
- ExComm reviews and updates the Association's Strategic Plan at least every three years (February ExComm meeting)
- ExComm reviews and updates the Association's Business Plan as required during ExComm meetings (August and February of every year)

3. Provide educational opportunities to the membership and support the Association's role in the promotion of research

3.1 Optimize the quality and relevance of the Association's educational programs and activities

- Vice President for Education and Research and the Executive Director coordinate the development of a plan by the Education and Training Committee with the support of the Aerospace Medical Student and Resident Organization (AMSRO), to evaluate the effectiveness of the Association's educational programs and activities.
- Vice President for Education and Research presents a draft evaluation plan to ExComm for discussion and approval
- Executive Director implements the approved evaluation plan
- Executive Director presents the final results of the evaluation to Council
- Executive Director ensures the Association's full compliance with the standards of the Accreditation Council for Continuing Medical Education (ACCME) to continue providing CME credits to the membership (ongoing)

3.2 Provide life-long learning opportunities and support for the Association's core membership

- Vice President for Education and Research and the Executive Director coordinate the development of a plan by the Education and Training Committee to support life-long learning needs of our core membership. These include required education to maintain professional licensing and/or specialty board certification of our members.
- Vice President for Education and Research presents

the draft plan to the Council for review and approval

- Final plan is implemented
- ExComm reviews and updates the plan on an annual basis (February of every year)
- Vice President for Education and Research coordinates with the Education and Training Committee and the American Society of Aerospace Medicine Specialists (ASAMS) the continued development and/or updating of aerospace medicine practice guidelines

3.3 Expand the Association's role in the promotion of aviation, space, and environmental medicine research

- Vice President for Education and Research coordinates a joint effort by the Aviation Safety Committee, the Aerospace Human Factors Committee and the Science & Technology Committee to develop a plan to promote basic and applied research in aviation, space and environmental medicine.
- Vice President for Education and Research presents the draft plan to ExComm for review and approval
- Final plan is implemented
- ExComm reviews and updates the plan on an annual basis (February of every year)

3.4 Identify current aviation, space, and environmental medicine research capabilities and programs worldwide and the existing gaps in basic and applied research/knowledge

- Vice President for Education and Research and the Vice President for International Activities coordinate a joint effort by the Aviation Safety Committee, the Aerospace Human Factors Committee, the Science & Technology Committee, and the International Activities Committee to develop a survey to identify current aviation, space, and environmental medicine research programs worldwide
- Vice President for Education and Research presents the draft survey to ExComm for review and approval
- Executive Director sends the approved survey to all known research laboratories/institutes worldwide
- Executive Director compiles all of the feedback from the returned surveys and presents a report to ExComm for review
- Based on the results of the surveys, the ExComm recommends the development of position papers and resolutions by the appropriate Committees to address specific gaps in basic and applied research/knowledge and to advocate for funding
- ExComm reviews and updates the survey every 2 or 3 years and updated information is collected for periodic analysis and action

4. Provide opportunities for member's professional growth and development, and involvement in the operation and leadership of the Association

4.1 Establish a formal Mentorship Program

- Vice President for Education and Research coordinates the development of the Association's mentorship program in coordination with the Education and Training Committee, the Fellows Group, the Associate Fellows Group, and AMSRO

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- Vice President for Education and Research presents a draft mentorship program to ExComm for review and comments

- Vice President for Education and Research presents the revised mentorship program to Council for their review and comments

- ExComm approves the final mentorship program

- Mentorship program is implemented

- President acknowledges publicly at the Association's Annual Business Meeting those members who are actively mentoring others through the formal mentorship program (May of every year)

- President proposes to ExComm the implementation of a "Mentor of the Year Award". If approved, the Vice President for Member Services coordinates the development of the nomination criteria by the Awards Committee

- Nomination criteria for this award is presented to ExComm for review and approval

- Vice President for Member Services announces the implementation of the new award at the Council and Annual Business Meetings

- Nominees for the new award are accepted for the 2006 Awards Program

- Education and Training Committee evaluates on an annual basis the success of the mentorship program, via a survey of mentors and those mentored (August of every year)

- ExComm reviews the results of the annual survey and updates the mentorship program as needed (February of every year)

4.2 Promote public recognition of members' accomplishments through the Association's awards program and the Fellowship and Associate Fellowship Programs

- Vice President for Member Services coordinates with the Awards Committee Chair and the Executive Director the development and implementation of new approaches to ensure the submission of award nominations for deserving members covering each of the Association's Awards

- Vice President for Member Services in coordination with the Chairs of the Fellows and Associate Fellows Groups assess the need to review/update the criteria for selection of the Association's Fellows and Associate Fellows

- Vice President for Member Services presents a report and recommendations to Council. Any approved recommendations for changes to the selection criteria are assigned to the Bylaws Committee for processing

- Vice President for Member Services in coordination with the Chairs of the Fellows and Associate Fellows Groups assess (every 3 years) the need to review/update the criteria for selection of the Association's Fellows and Associate Fellows (by February of every 3rd year)

4.3 Promote participation of the membership in the Association's committees

- Vice-Presidents discuss with their respective Committee Chairs potential approaches to promote increased involvement by the membership in the Association's Committees

- Vice-Presidents present their recommendations to ExComm

- Executive Director coordinates implementation of approved recommendations

- Vice-Presidents assess in coordination with their respective Committee Chairs the progress in membership involvement in the Association's Committees and present an annual report to ExComm (August of every year)

4.4 Foster national and international collaboration and joint efforts (co-sponsored professional meetings, technical exchanges, and training opportunities) in support of Aerospace Medicine

- Vice President for International Activities coordinates with the International Activities Committee Chair the development of a survey to identify all current Aviation, Space, and Environmental Medicine Societies around the world

- Vice President for International Activities presents the draft survey to ExComm for review and approval

- Executive Director sends the approved survey to all members

- Executive Director compiles all of the feedback from the returned surveys and develops an International Directory of Aviation, Space, and Environmental Medicine Societies

- ExComm identifies a list of potential areas for international collaboration

- Executive Director uses the International Directory of Aviation, Space, and Environmental Medicine Societies to send official proposals to pursue collaborative programs/activities

- Executive Director compiles the responses to the proposals and presents a report to ExComm

- Approved collaborative programs/activities are implemented and the appropriate committees are assigned responsibility to monitor progress

- Executive Director collects progress reports on all collaborative programs/activities and provides updates to ExComm (August and February of every year)

- Vice President for International Activities coordinates with the International Activities Committee Chair the development of a plan to:

- + Encourage more non-U.S. members to present papers at the Association's Annual Scientific Meeting, create 'national' panels and present in languages other than English where appropriate, publish manuscripts in the ASEM journal, and take a more active role in AsMA.

- + Encourage more non-U.S. members to play a more active role in the Association's programs, activities, and leadership

- + Create special joint international working groups on timely, critical issues (e.g., Homeland Defense, Aircrew/Passenger health, joint service UAV aircrew medical standards, etc.). Have at minimum annual meetings of these groups at AsMA Scientific Meeting. Maintain close correspondence via e-mail and Post

- + Expand opportunities for 'International' Panels to non-U.S. members representing demographically significant nations or blocs of nations. Language should be determined jointly by nation/bloc representatives along with leadership of the International Activities

Committee, and the VP for International Activities International Members Committee should sponsor one or more of these panels each year

- + Nominate deserving non-U.S. members to AsMA leadership positions. Non-U.S. members should be encouraged to by their respective Constituent organization representatives and colleagues to volunteer for more positions of responsibilities

5. Represent the discipline of Aerospace Medicine before professional, commercial, and governmental organizations

5.1 Identify emerging issues in aviation, space, and environmental medicine (including allied disciplines) and improve the Association's responsiveness to these issues. Foster interdisciplinary approaches to manage aerospace medicine issues

- Executive Director convenes a Special Task Force to develop a draft plan to establish a proactive and timely process ("Fast Track") to identify new or emerging issues/concerns in aviation, space and environmental medicine and take appropriate action(s) to handle/manage such issues. This plan should promote a multidisciplinary approach that takes advantage of the diverse knowledge base and experience of the Association's membership

- Executive Director presents the draft plan to ExComm for review, modifications (if any), and approval
- Approved plan is implemented
- ExComm evaluates (prospectively) the effectiveness of this plan on an annual basis and assesses the need for changes/improvements (February of every year)

5.2 Advocate a human-centered approach to support the development and implementation of new and evolving aerospace technologies

- The Vice President for Education and Research coordinates the identification of aerospace human factors advocacy initiatives by the Aerospace Human Factors Committee and the Science and Technology Committee. These initiatives may include proposals for positions papers, policies, resolutions advocating the use of aerospace human factors principles in the design and operation of future aerospace technologies

- The Vice President for Education and Research presents draft initiatives to ExComm for review and approval

- Approved initiatives are assigned to the appropriate Committees for development

- Committees present status reports on the assigned initiatives to Council

- The Vice-President for Education and Research coordinates the continuous monitoring of emerging trends in aerospace technologies by the Aerospace Human Factors Committee and the Science and Technology Committee. Discusses emerging trends with ExComm

(August and February of every year).

5.3 Advocate aerospace medicine resolutions, policies, and positions

- Executive Director ensures the timely dissemination of the Association's resolutions, policies and position papers that support the needs of the members and advocate the Association's mission (ongoing)

- Vice-President for Representation and Advocacy coordinates the development by the Resolutions Committee of a proactive process to ensure the timely development of resolutions, position papers, policy letters, etc. in response to the issues/concerns identified under the "Fast Track" concept described under 5.1 This process may require the support of the other Vice-Presidents and their corresponding Committees

- Vice-President for Representation and Advocacy presents the proposed process to ExComm

- Approved process is implemented

- ExComm evaluates the effectiveness of this plan on an annual basis and assesses the need for changes/improvements (February of every year)

5.4 Optimize the use of all available communications methods to support the information needs of the membership and increase public awareness/education about aviation, space and environmental medicine (including allied disciplines)

- Vice-President for Representation and Advocacy coordinates with the Communications Committee and the Executive Director the development of a survey to identify the appropriateness of all communications methods used by the Association to support the members and inform the public

- Vice President for Representation and Advocacy presents the draft survey to ExComm for review and approval

- Executive Director sends the approved survey to all members

- Executive Director compiles all of the feedback from the returned surveys and presents a report to ExComm for review

- Based on the results of the surveys, the ExComm implements improvements to the Association's communications infrastructure

- ExComm reviews and updates the survey every 2 or 3 years and updated information is collected for periodic analysis and action

5.5 Increase the Association's international outreach and relevance by promoting AsMA Affiliate Organization status among Aviation, Space, and Environmental Medicine Societies around the world

- Executive Director sends formal requests to Aviation, Space, and Environmental Medicine Societies around the world inviting them to become AsMA Affiliates

President's Page

I had the honor of being a guest speaker at the 50th Anniversary Celebration of the U.S. National Academy of Sciences' (NAS) National Research Council (NRC) Resident Research Associateship Programs (RRA) in Washington, D.C. I was asked to share my personal experiences as a former NRC Resident Research Associate at the U.S. Force School of Aerospace Medicine in San Antonio, and as the leader responsible for the implementation of the first RRA program within the Federal Aviation Administration at the Civil Aerospace Medical Institute (CAMI) in Oklahoma City. I am a firm believer in the benefits that these RRA programs provide to participating scientists and to the sponsoring Federal laboratories. Thanks to this program, I was fortunate to meet Dr. Sally Nunneley (former NRC Advisor and currently Editor of our journal), who, as one of my mentors, opened many doors that allowed me to pursue an Aerospace Medicine career in the U.S.

In 1954, the Fellowships Office of the NAS received the first applications to the RRA program, a new post-doctoral program that awarded fellowships to conduct research at sponsoring Federal laboratories. In its 50 year history, the RRA programs have provided awards to postdoctoral and senior scientists and engineers on behalf of an extensive list of sponsoring U.S. Federal agencies. Since 1954 more than 11,000 fellowships have been awarded and approximately 3,000 alumni of the RRA programs hold career positions in the Federal government. At the present time, there are 40 RRA programs including civilian and military aerospace medical research laboratories in the Army, FAA, NASA, Navy, and Air Force.

The objectives of the RRA programs are: 1) to provide postdoctoral scientists and engineers of unusual promise and ability opportunities for research on problems, largely of their own choice, that are compatible with the interests of the sponsoring laboratories; and 2) to contribute to the overall efforts of the Federal laboratories. For recent doctoral graduates, the RRA programs provide an opportunity for concentrated research in association with selected members of the permanent professional laboratory staff, often as a climax to formal career preparation. For established scientists and engineers, the RRA programs afford an opportunity for research without the interruptions and distracting assignments of permanent career positions. Participating laboratories receive a stimulus to their programs by the presence of bright, highly motivated, recent doctoral graduates and by senior investigators with established records of research productivity. New ideas, techniques, and approaches to problems contribute to the overall research climate of the laboratories. Indirectly, RRA programs also make available to the broader scientific and engineering communities the excellent and often unique research facilities that exist in Federal laboratories. For more information about current RRA programs and



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available research opportunities at participating Federal laboratories go to the RRA website at <http://www.national-academies.org>

I also had the privilege to represent the Aerospace Medical Association at the "Zürser Tage für Flugmedizin" organized by Professor Wolfgang Kostler, Director of the Department of Aviation Medicine of the Civil Aviation Administration of Austria. I was invited to talk about the "Role of AsMA in Aviation Safety" and also shared with all attendees the benefits of becoming AsMA members. The meeting was held in the mountain village of Zürs am Arlberg near Innsbruck. All participants had the opportunity to take a helicopter ride to enjoy the aerial views of this beautiful alpine landscape and to do some snow skiing. Who says that it is difficult to mix business with pleasure?

At last, the U.S. Senate voted on the Commercial Space Launch Amendments Act of 2004 (H.R. 5382) that lays out the definition of a suborbital space passenger vehicle, clarifies the process for licensing such vehicles, and allows paying passengers to fly into space at their own risk. This bill was approved by voice vote in the final minutes of the 108th Congress and authorizes the FAA to issue permits allowing commercial spacecraft operators to carry paying passengers into space. The bill requires space passengers to be fully informed about all of the potential risks of participating in space flights. By allowing passengers to fly at their own risk, this bill limits commercial space operators' liability for passenger safety, thus giving this emerging industry an opportunity to succeed. The FAA will have to wait 8 years after enactment of the new law to begin issuing regulations to protect the safety of space passengers and crew. In the meantime, the FAA may restrict space vehicle design features or operating practices only if they have resulted in a serious or fatal injury to passengers or crew (accident), or caused an unsafe unplanned event (incident). Equally important in this new bill is a section on manned space vehicle experimentation. Under current

See PRESIDENT'S PAGE, p.160.

PRESIDENT'S PAGE, from p. 159.

laws, any commercial experimental space vehicle must comply with the FAA licensing requirements of a fully functional spaceship before it can be launched. However, under the new approved bill, as long as there are no paying customers aboard, the licensing requirements are less stringent (and less costly) in order to facilitate the flight testing/evaluation of new space vehicle concepts. Furthermore, there is no limit on the total number of experimental flights permitted under the new licensing requirements.

In other space news, NASA's Exploration Systems Directorate selected the 70 proposals (out of 485) to support the exploration systems research and technology goals and objectives of the "Vision for Space Exploration", that will make it possible to have sustainable and affordable human and robotic exploration missions beyond low earth orbit. This approach encourages collaborative work with academia and the space industry to pursue innovative concepts and ideas that may have a significant impact in the future of the U.S. space program. The total value of the proposed work is more than \$ 1 billion through fiscal year 2009.

By the time you read this page, Burt Rutan's Scaled Composites should have already delivered the "Global Flyer" to Steve Fossett, who had plans to complete a

one-pilot around-the-world nonstop flight at the beginning of January 2005. The aircraft was designed to carry about 18,000 pounds of fuel (distributed in 13 fuel tanks), flying at an altitude of 52,000 ft, with an average speed of 285 knots, and the expected duration of the flight was about 70 hours. I hope that everything went according to their plans and by now Mr. Fossett is the holder of a new aviation record.

Did you know that Lt. Charlie Williams of the British Army survived a 3,500 foot fall (with minor injuries) when his parachute failed to open during a training exercise in Kenya? This was his third parachute jump in an attempt to overcome his fear of heights. Upon exiting the transport aircraft, he clipped the side of the door, began to spin during free fall, and became entangled in his parachute rigging. He crashed through the roof of a house and landed on the floor under the watchful eyes of several people who were inside the house. This certainly brings a new meaning to "having unexpected visitors drop by". What an amazing story of survival!

In closing, and as I promised in my previous President's Page, this issue contains the final AsMA Strategic and Business Plans that are currently being used to support/guide all AsMA initiatives. Please take the time to become familiar with these plans.

Corporate and Sustaining Members of the Aerospace Medical Association

The financial resources of individual members alone cannot sustain the Association's pursuit of its broad national goals and objectives. Its 75-year history is documented by innumerable medical contributions toward flying health and safety that have become daily expectations by the world's entire flying population—commercial, military, and private aviation. However, support from private and industrial sources is essential. The following organizations, who share the Association's objectives or have benefitted from its past or current activities, have affirmed their support of the Association through Corporate Membership.

Aeroform Limited
Aeromedic Innovations
Air Canada
Air Line Pilots Association
AirSep Corporation
American Airlines, Inc.
ASM-Austrian Society of Aerospace Medicine
AstraZeneca Pharmaceuticals LP
Autoflug Libelle GmbH
Aventis Pharmaceuticals
Aviation Medicine Center at UTMB
Baxter Healthcare Corporation
Carleton Life Support Systems Inc.
David Clark Company, Inc.
Education Enterprises, Inc.
Environmental Tectonics Corporation
Essilor of America/Varilux
Gentex Corporation
GlaxoSmithKline
International Federation of Air Line
Pilots Associations

Japan Airlines
Kelsey-Seybold Clinic
Korean Air Force Safety Center (AFSC)
Latecoere International, Inc.
Lockheed Martin Corporation
Mayo Clinic
MedAire, Inc.
Monash University/Alfred Hospital
Pilot Medical Solutions
SAIC
Scandinavian Airlines System
South African Airways
Stereo Optical Company, Inc.
United Airlines
United States Aviation Underwriters
Universities Space Research Association
(USRA-DSLS)
Harvey W. Watt & Company
Wyle Laboratories, Inc.

Medical News

Executive Director's Column



Rayman

Continuing Medical Education

Continuing Medical Education (CME) has been a growing concern of all physicians because of State and specialty requirements. Although the requirements do differ, most medical regulatory agencies require approximately 50 hours per year. In the U.S., CME is regulated by the Accreditation Council for Continuing Medical Education (ACCME). The ACCME is comprised of representatives from a number of medical organizations, among them the American Medical Association (AMA), the American Board of Medical Specialties (ABMS), and the American Hospital Association (AHA), with offices co-located with AMA Headquarters in Chicago.

In order for a medical organization such as AsMA to accredit its scientific meetings, it must be in full compliance with ACCME standards, which are under continual review with periodic revisions. In general, the standards are made for the purpose of improving the quality of patient care. Over the past 10 years, the ACCME has tightened its requirements and undoubtedly will continue to do so in the coming years.

If a medical organization is in compliance with ACCME standards, it has the privilege of accrediting its own scientific meetings for CME. In the case of AsMA, we are able to accredit our Annual Scientific Meeting for a maximum of 24 hours. (Five extra hours of CME can be obtained if one attends the Sunday Workshops.)

To ensure that medical organizations that accredit their meetings are in compliance with ACCME standards, a full inspection is conducted every 4 years. Since I have been your Executive Director, I have undergone three such inspections. Preparing for these inspections is a daunting task in that a full description of our Organization, including mission, planning and evaluation processes, needs assessment, administrative support, and budgeting policy, must be described in detail. Furthermore, documentation of compliance must be included. At our most recent survey in November 2004, our package was 94 pages long.

AsMA was inspected this past November 4 at the ACCME Headquarters in Chicago. Usually, I and the Chair of the Education and Training Committee meet with the inspectors

(there are usually two inspectors) who go over our package and, in general, grill us. I left the recent inspection feeling rather confident that we will get high marks. I will find out the results in March 2005 and announce it at the May meeting. It is critical that we pass this inspection because if we don't, we are either put on probation or denied the privilege of accrediting our meeting for CME. Incidentally, the costs for all of this amount to thousands of dollars and include annual dues as well as periodic fees. We also pay for the travel expenses of the inspectors.

After the survey, I had the opportunity to ask the inspectors a number of questions. Among them was the question of accrediting our international members. This is a very complex issue because every nation has its own regulatory agencies with its own requirements. This makes it very difficult for the ACCME to apply standards that would be acceptable to other nations. However, I was told that there are discussions in progress addressing this issue and there is the possibility that some time down the road, international agreements can be achieved that will allow recognition of accreditation from one country to another. We will be following this closely, but I do not see this happening in the near future.

In addition to CME for MDs, our meeting is also certified by the American Osteopathic Association (AOA) for our DO members. At some time I assume they will also inspect our programs, but as of now, this has not occurred.

Proposed By-Laws Changes

In accordance with Article XIII of the Bylaws of the Aerospace Medical Association, the following amendment is hereby published in anticipation of its consideration at the Annual Business Meeting to be held Tuesday, May 10, 2005, in Kansas City, MO. The meeting is open to all members of the AsMA. The current Bylaws are available on the AsMA website at: www.asma.org.

1. Article 9, Section 3, para I. Finance Committee. Delete "The president appoints the Finance Committee Chair. The regular members are nominated by the chair and approved by the Executive Committee." Insert "The President will appoint the Chair and

Business Meeting Open to ALL Members

The next AsMA Annual Business Meeting will be held Tuesday, May 10, 2005. You do not have to buy lunch to attend the meeting. Your attendance and participation are encouraged. We need your support to vote on current issues and elect our officers. Please join us!

regular members of the Committee will be appointed by the Chair."

2. Article 10, Section 3. Quorum. Delete "One hundred voting members shall constitute a quorum." Insert "Those present in good standing shall constitute a quorum."

These two proposals will be brought to the Business Meeting in Kansas City.

Space Shuttle Should Conduct Final Servicing Mission To Hubble Space Telescope

To ensure continuation of the extraordinary scientific output of the Hubble Space Telescope and to prepare for its eventual de-orbiting, NASA should send a space shuttle mission, not a robotic one, says a new congressionally requested report from the National Academies' National Research Council. The agency should consider launching the manned mission as early as possible after the space shuttle is deemed safe to fly again, because some of the telescope's components could degrade to the point where it would no longer be usable or could not be safely de-orbited, said the committee that wrote the report.

The Hubble telescope, which has operated continuously in orbit for the past 14 years, was designed to be serviced regularly by astronauts. Four servicing missions replaced nearly all the key components while increasing the telescope's capabilities. The fifth and final mission — to replace aging batteries, fine-guidance sensors, gyroscopes, and two scientific instruments — was originally intended to be completed by a shuttle crew as well, but NASA is currently planning an unmanned mission to service the telescope robotically.

See HUBBLE, p. 162.

March issue to be the Meeting issue

This year, the March issue of *Aviation, Space, and Environmental Medicine* will be the Meeting issue. It will contain the abstracts accepted for presentation at the meeting, plus the schedule and much more!

This Month in Aerospace Medicine History-- February 2005

By Walter Dalitsch III, M.D., M.P.H.

Fifty Years Ago

Human factors in aviation. "The required level of performance of the crew component in a modern air weapons system can be assured only by an orderly plan of integrated activity by human factors groups throughout the development cycle of the system.

"Maintaining a parity of competence between the human and electromechanical components in a high performance aircraft requires the closest working liaison and understanding between aeromedical and allied scientists and the engineer...

"Of all the phases of activity described the most important at present is the one providing for a team analysis and evaluation of crew effectiveness made with operational air crews at their stations in the assembled mockup prior to formal board convention...

"The present system of human factors operations suffers at the present time, not from lack of appreciation or interest of the engineers in the human component, but instead from the following factors or deficiencies: 1) lack of fundamental data in the human factors field which is available in usable form to the engineers; 2) lack of a comprehensive plan for data collection, accumulation, validation and dissemination to working groups, both scientists and engineers; and 3) lack of training programs in either service or academic laboratories and institutes directed toward greater integration of common knowledge and skills required by life and engineering scientists alike which would prepare them for work in this highly complex field of man-machine optimal performance" (2).

Human experiments à la Colonel Stapp?

"Undesirable experiments on human beings must not only be discouraged but prevented. Medical men the world over are aware of this. With this awareness it is certain that proper and carefully regulated human experimentation will continue to contribute immeasurably to the health and well-being of countless millions and to the continued progress of medicine" (1).

Safety in General Aviation. "Manufacturers of aircraft should provide shoulder harness, stall warning indicator, and improved directional indicator and modern lighting, as standard equipment. Improvements in directional stability which would eliminate the fatal spiral, such as the automatic pilot, would no doubt reduce the accident rate under IFR conditions. Such installations are, at present, prohibitive in price to the average pilot, but experimental work is under way to develop equipment for directional stability at lower costs -- a so-called poor man's autopilot. If developed satisfactorily, such a device should be offered as standard equipment on all planes. Many of us have hoped for many years to see a concentrated effort by the aircraft industry to design, construct and equip a plane using present-day knowledge of efficiency, power and equipment. Such hopes, of course, are rather futile, as long as the defense of our country requires most of the manufacturer's capacity in this field. Once military spending may be

safely reduced, competition in the private plane industry may produce such a modern plane at a reasonable figure" (6).

Twenty-five Years Ago

Airline age discrimination. "A U.S. District judge has ruled that American Airlines is not violating age discrimination laws in refusing to hire pilots over the age of 40. The judge denied the suit of a 43-year-old former military pilot who was turned down for an entry level flight officer job in 1976.

"The judge said the airline's rule, not to hire pilots over 40, was a bona fide occupational qualification in the interest of air safety.

"American had explained that its policy was to hire only flight officers it could eventually promote to copilot and then to captain. The airline argued that it needed time to train its pilots to its own standards and to give them sufficient experience before giving them the responsibility of as many as 400 passengers and crew.

"If American were forced to hire pilots above the age of 40, the judge said, there would not be sufficient time for them to acquire essential experience before they were forced to retire" (5).

Joint service medical care and evacuation. "The Air Force provided the air-evac and the Army provided the hospital treatment recently when 70 Marines were burned in an explosion at their base in Japan. Two Marines died...

"Working in coordination with an 18-member burn team from Brooke Army Burn Center, San Antonio, TX, the Military Airlift Command Surgeon's office at Scott AFB, IL, began rounding up equipment and aircraft. At least two were needed.

"One C-141 Starlifters were [sic] sent immediately from Clark AB, Philippines, loaded with medical supplies and crews. The other, from Norton AFB, CA, first picked up the burn team from Brooke, then flew to Elmendorf AFB, Ak, for more supplies. Meantime, hospital respirators and special electrical converters -- to allow the respirators to be used in flight -- were flown to Elmendorf to meet the Norton plane.

"While the Starlifters were en route to Yokota AB, Japan, 38 of the most seriously burned Marines were flown by helicopter from their base at Camp Fuji to Yokota. Then the Starlifters flew them to Brooke...

"Brig. Gen. Howard R. Unger, USAF, MC, MAC Surgeon, said: 'The mission showed what joint service efforts can accomplish to get the job done in an emergency. Aeromedical airlift costs a lot in terms of money and time to be ready whenever an emergency arises. Yet, there's no way you can put a dollar figure on the worth of a human life' (4).

Simulated zero gravity in rats (Laboratory of Aerospace Biology, Colorado State University, Fort Collins). "As a prelude to a flight experiment, an attempt was made to separate energy requirements associated with gravity from all other metabolic needs. The biological effects of weightlessness were simulated by suspending animals in a harness so that antigravity muscles were not supporting the body. Twelve pairs of rats were allowed to adapt to wearing a harness for 5 d. Experimental animals were then suspended in harness for 7 d followed by recovery for 7 d. Control animals were harnessed but never suspended. VO₂,

VCO₂ and rate of ¹⁴CO₂ expiration from radio-labeled glucose were monitored on selected days. Food intake and body mass were recorded daily. Metabolic rate decreased in experimental animals during 7 d of suspension and returned to normal during recovery. Although some of the metabolic changes may have related to variation in food intake, simulated weightlessness appears to directly affect bioenergetic balance" (3).

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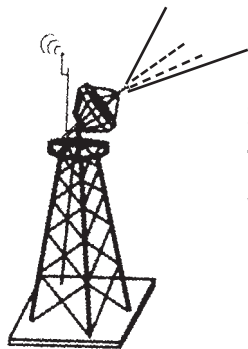
HUBBLE, from p. 161.

The committee's principal concerns about a robotic mission are the risk of failure to develop it in time and the risk of a mission failure, as well as the possibility that the robot could critically damage the telescope. A robotic mission would face significant challenges in using its grapple system to perform autonomous close-proximity maneuvers and the final capture of the space telescope -- activities that have no precedent in the history of the space program and whose chances of success are low, according to the committee.

The committee assessed the safety risks of a shuttle-servicing mission by comparing shuttle missions to the International Space Station -- to which NASA plans to send 25 to 30 more shuttle flights -- and shuttle missions to the Hubble telescope. The differences between the risks faced by the crew of a single shuttle mission to the space station and those of a mission to the Hubble telescope are very small, the committee concluded.

Also, a shuttle crew would be able to successfully carry out unforeseen repairs to the Hubble telescope and develop innovative procedures for unexpected challenges in orbit, the report notes. Such contingencies have been successfully addressed on three of the four prior missions to the telescope. A robotic mission, on the other hand, might not be able to repair failures that it is not designed to address, possibly stalling the mission in its early stages.

The study was sponsored by NASA. The National Research Council is the principal operating arm of the National Academy of Sciences and the National Academy of Engineering. Copies of Assessment of Options for Extending the Life of the Hubble Space Telescope will be available early next year from the National Academies Press; tel. 202-334-3313 or 1-800-624-6242 or order on the Internet at <http://www.nap.edu>.



Science & Technology Watch

Keeping You Informed Of The Latest Advances In Science And Technology

Critical Care Medicine in Space

George Beck BA, RRT, Impact Instrumentation Inc., West Caldwell, NJ
Shannon Melton, B.S., Wyle Laboratories, Houston, TX
Scott A. Dulchavsky, M.D., Ph.D., Henry Ford Health Center, Detroit, MI

Parabolic microgravity flights which validated new technologies and aerospace medical techniques for use with critically ill or injured crewmembers were recently completed in Houston, TX, by personnel from Henry Ford Hospital, Wyle Laboratories, and Impact Instrumentation, Inc. The flights are the culmination of a number of ground-based experiments which evaluated equipment that allows remote control and monitoring of diagnostic and therapeutic devices. In addition, the investigations involved use of closed-loop control to manage oxygen (O_2) delivery from a compact, battery powered O_2 generator and mechanical ventilator.

The medical care challenges imposed by the unique environment of space require the development of novel diagnostic and treatment strategies for illness or injury of crewmembers (1). The current concept of operations for medical care on the Shuttle and International Space Station (ISS) employs the use of a non-physician Crew Medical Officer (CMO) who receives limited medical training prior to flight (2). The CMO may be required to perform medical procedures or techniques which would most likely be challenging to a trained physician.

The highlighted experiments evaluated the ability of just-in-time CMO analogs (non-medical professionals given training equivalent to that of the astronauts) to perform state of the art diagnostic and therapeutic medical and surgical procedures using remote expert guidance. The CMO operators used ultrasound and/or microlaparoscopy to visualize the chest and abdominal cavities to facilitate placement of a therapeutic drainage catheter. Similar techniques could be used by the CMO on the ISS or exploratory class missions to stabilize or treat a wide variety of medical conditions. The procedures were designed to be compatible with current equipment and training constraints and would not require general anesthesia or significant additional equipment.

The CMO operator successfully evalu-

ated the chest cavity with ultrasound 100% of the time; the resulting images were of excellent quality and could be used to exclude pneumothorax or hemothorax (3). Ultrasound images of the abdominal organs including the liver, gallbladder, and urinary bladder were also obtained. Drainage catheters were inserted into the gallbladder and urinary bladder in a subset; this technique could be used to treat acute cholecystitis or urinary retention/stone disease in a crewmember where evacuation is impractical.

Microlaparoscopy using a 3-mm endoscope was successfully completed in 100% of experiments. The endoscope was remotely guided by an expert and allowed complete visualization of the abdominal cavity. This remote "exploration" of the abdomen could be used to evaluate abdominal pathology including appendicitis, biliary disease, abdominal trauma, or gynecologic disease. Drainage catheters were successfully guided into fluid filled "abscess" cavities, the biliary system, and the urinary bladder, expanding the therapeutic possibilities of the remote technique. The microgravity technique was more challenging than ground-based cohorts due to "floating" of the abdominal organs; however, the technique was successfully completed despite this additional constraint.

An advanced ventilator, co-developed by Wyle Laboratories, NASA, and Impact Instrumentation under a cooperative Space Act Agreement, was also evaluated in the ground and microgravity trials. The 12-lb unit allows remote, ground-based clinicians to monitor and control all ventilator parameters while an integrated electronic medical record stores data. The data storage architecture allows ventilator information to be stored during communication blackouts for later downloads to the remote team. Closed-loop control software developed by Impact managed the inspired O_2 concentration using feedback from an advanced pulse oximeter (MP-100, Nellcor, Pleasanton, CA). The system maintained the oxyhemoglobin saturation at or above 94% throughout the experiments while minimizing oxygen consumption.

A small 10-lb O_2 concentrator (SeQual Technologies, Inc., San Diego, CA) was used to deliver O_2 to the ventilator at $3\text{ L} \cdot \text{min}^{-1}$ at greater than or equal to 96% O_2 using $\sim 60\text{ watts} \cdot \text{L}^{-1}$ of power. This resulted in an inspired O_2 concentration (FiO_2) of ~ 0.40 with average ventilator settings of tidal volume of 0.6 L and a respiratory rate of 14. Interface with the closed-loop controller allowed the system to regulate the amount of O_2 produced to meet demand, which coupled the power consumption of the system to the patient's oxygenation requirement.

The aerospace medical use of an O_2 concentration device capitalizes on the closed environmental design of space vehicles which add O_2 and remove carbon based on the metabolic consumption/production of these gases. Use of a concentrator in this environment does not affect the overall function of the system; at any given time the concentrator contains less than 1 L of O_2 . Oxygen not used to support metabolism is immediately returned to the cabin with each patient exhalation. As a result, the environmental system needs only to maintain the default flow of O_2

to meet metabolic demands.

Development of a medical system that augments the abilities of care providers with limited training and supply constraints is a fundamental requirement for operations in low-earth orbit and essential for exploratory class missions. Technology which reduces consumable requirements significantly increases the medical capabilities during long or exploratory class space missions. These devices, coupled with advanced just-in-time training methodologies and/or remote expert guidance significantly increase critical medical capabilities in remote or undersupported environments. The techniques, developed for use in the space environment, are also appropriate for use on the Earth to augment the management of mass casualty situations, military operations, or in underserved locations.

This work was supported by a grant from the National Space Biomedical Research Institute (SAD, SM)

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The AsMA Science and Technology Committee provides this Science and Technology Watch column as a forum to introduce and discuss a variety of topics involving all aspects of civil and military aerospace medicine. The Watch can accommodate up to three columns of text, which may include a figure or picture to illustrate your concept.

Please send your submissions via e-mail to: len.goodman@drdc-rddc.gc.ca.

AsMA Future Meetings

May 8-12, 2005
Kansas City, MO
Hyatt Regency Crown Center

May 14-18, 2006
Caribe Royale Hotel
Orlando, FL

May 13-17, 2007
Sheraton and Marriott Hotels
New Orleans

May 11-15, 2008
Sheraton and Hilton Hotels
Boston, MA

May 3-7, 2009
Westin Bonaventure Hotel
Los Angeles, CA

AEROSPACE PHYSIOLOGY REPORT

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Aerospace Physiology Operational Excellence, Training, Research and Leadership Award Nominations

by T. J. Wheaton, CDR MSC USN, Awards Committee Chair

The Aerospace Physiology Society presents three major achievement awards to recognize individuals who perform extraordinary work within the Aerospace Physiology Community. This year's awards will be presented at the Aerospace Medicine Association's 76th Annual Scientific Meeting, held in Kansas City, MO, 8-12 May 2005. Society Awards will be presented at the annual luncheon, Wednesday, 11 May 2004.

The AsPS awards are presented for outstanding achievement in all areas of aerospace physiology: operational support, training, research, and leadership. Recipients receive a certificate, wall plaque, and an honorarium.

The **Paul Bert Award**, recognizes outstanding research contributions in aerospace physiology. This award was established in 1969, and was originally given for achievement in operational physiology. It is named in honor of the famous French physiologist, Paul Bert, the "Father of Pressure Physiology." Nominees will be considered for research covering the previous 5 year period. Limit the nomination to 2 or 3 major research contributions. The Award committee will consider unrecognized nominations from the 3 past years, though it is strongly recommended that those nominations be updated in writing. Research areas may range from basic science to research in highly applied areas of aerospace physiology. Last year's 2004 winner was Dr. William Albery, Ph.D.

The **Wiley Post Award** recognizes outstanding contributions in direct operational physiology and aeromedical training and education. In 1972, the Wiley Post Award replaced the Paul Bert Award for Operational Physiology. It is named in honor of the aviation pioneer Wiley Post. The Wiley Post is presented for exceptional service and achievement in operational physiology, including education and physiological support of Dept. of Defense, FAA, NASA, allied or civilian aircrew. Nominees will be considered for the previous 12 month body of work in operational physiology. Nominations from past years will not be carried forward nor considered. Last year's 2004 winner was Anthony Artino, LT, MSC, USN.

The **Fred A. Hitchcock Award** recognizes career contributions of senior aerospace physiologists for excellence in either operational aerospace physiology or aerospace physiology research. The award 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 Award committee will consider unrecognized nominations from the 3 past years, though it is strongly recommended that those nominations be updated in writing. Last year's 2004 winner was Jeff Sventek, Col., BSC, USAF.

Award Submission Criteria

The standard format for the award submission shall be the same as the Aerospace Medical Association Awards. The award package includes a citation of 80 words or less, and a list of significant accomplishments in bullet format to be less than 300 words. Standard award forms may be downloaded from the AsMA website, or contact the Award Chair for a copy. Awards that are submitted in any other extended format will not be accepted. Nominations should specify the time interval over which the nominee's contributions were made. Include the nominee's current one page biography or a resume. Please include an official photograph in jpeg format.

Society and Association members are strongly encouraged to nominate and recognize the outstanding contributions by professionals within the aviation scientific community. Nominations may be submitted by anyone, regardless of their membership status within AsMA or AsPS. Chain of command endorsements are not required for military nominations, but may be considered by the committee.

Award nominations are **due no later than 01 April 2004**. Nomination packages must be in Microsoft Word and submitted on disk (by mail) or by e-mail. Send nominations to the Award Chairman at:

Commander, NAVAIRSYSCOM (PMA-202)
Attn: (CDR Wheaton, AsPS Awards)
47123 Buse Road
Bldg. 2272, Suite 347
Patuxent River, MD 20670-1906
Phone: (301)342-8445
Email: thomas.wheaton@navy.mil

Aerospace Physiology Society Election Information.

Election of officers for the Society will be conducted exclusively online this year. Bio's of the candidates and instructions for voting can be found at the AsPS website. Please logon for additional details. Bios will be published by 15 March, and voting will commence 4 April. As a reminder, you must be a member in good standing of both ASMA and AsPS for your vote to be registered/counted. For additional information, please contact CAPT Gail Hathaway, Society President, at hathaway@nepmu6.med.navy.mil; or CAPT Donna Murdoch, Past President, at co@namrl.navy.mil.

AsPS Member Benefits

The outstanding network potential and the chance to gain knowledge from the field's top minds.

The opportunity to take part in forums for the integration and utilization of experts in many diverse professional fields. Our members have shared their expertise in multinational and multi-service working groups for altitude effects, acceleration, spatial disorientation, passenger and patient transport, and human factors.

The opportunity to recognize scientific achievement in the field of aerospace physiology. There are three Society awards presented each year.

The chance to contribute to the success and quality of the annual AsMA conference. The Society's Education and Training Day has been one of the most widely attended sessions during the annual conference.

Membership is only \$10. For more information, please contact Joe Essex at joseph.essex@navy.mil, or write to:

LCDR Joe Essex, MSC, USN
BLDG 2272 Suite 345
47123 Buse Rd
Patuxent River, MD 20670

30th Annual Dive Medicine Conference

The International Society of Aquatic Medicine (ISAM) will hold its 30th Annual Conference May 21-28, 2005, at the Fort Young Hotel in Dominica. The conference is a 30-hour Category 1 CME program that offers lectures on diving medicine, forensic science, physiology, hyperbarics, and exploration research. The afternoons are spent in the field conducting underwater exploration.

For further information, contact ISAM, 6240 Turtle Hall Drive, Wilmington, NC 28409; (910) 452-1452; FAX (910) 799-5209; or visit www.divingdocs.org.

JOURNAL IS ONLINE!

You must register via www.ingentaconnect.com, AND pay AsMA an additional \$20 fee.

WING NEWS & NOTES

Kansas City Means Barbecue

By Harriet Hodgson

Wing members love good food and in Kansas City, Missouri, that means barbecue. Kansas City folks take barbecue seriously – very seriously. In fact, the city bills itself as the barbecue capital of the world. If you want to start a lively conversation, ask a local resident which barbecue restaurant is the best, sit back, and watch the sparks fly.

Bill Brook, of the *Tribune* staff, thinks the city is a place “where rival barbecue traditions meld. Where pork meets beef in a fusion fueled by tangy sauces and wood smoke.” You may be surprised to hear this, but Kansas City even has a barbecue society. The “Barbeque Kansas City Style” website contains a brief history of this type of cooking.

According to the site, Carolina barbecue sauce has a vinegar base. Texas barbecue has a tomato base seasoned with Worcestershire sauce, vinegar, and hot peppers. Kansas City barbecue is a blend of both – a dry spice mixture rubbed on meat that is roasted over a wood fire and basted with a tomato sauce that contains molasses.

Kansas City folks say good barbecue can’t be rushed. The meat must be cooked slowly over an open fire. Hickory wood is probably the most common wood because it’s readily available. But oak, pecan, and apple woods are also used. Nearly any kind of meat may be barbecued, but in Kansas City, barbecue means beef.

Choosing a barbecue restaurant isn’t easy because there are so many of them and more are added each day. To learn more about Kansas City barbecue, access the BBQ Forum on the Internet. Your hotel or motel room should also have a visitor’s guide that contains information on barbecue restaurants. Bring a hearty appetite with you, because portions are huge, enough to feed two or more.

I love barbecue and I love to cook. Often I buy cookbooks to remind me of Wing meetings – cookbooks from Ohio, Texas, Oklahoma, Canada, and far-off places. The cookbooks remind me of the regional differences in cuisine and of my Wing friends. Chances are I’ll buy a barbecue cookbook in Kansas City. But a cookbook can’t replace a barbecue dinner, a must for residents and visitors alike.

Kansas City for Kids

For those of you with children don’t hesitate to bring them to Kansas City. This kid-friendly city will have your little one or teen captivated for days. You’ll find tons of fascinating museums like Science City at Union Station where kids are encouraged to interact, play, and learn – and you can get there via skywalk from the Hyatt & Westin Crown Center. Science City is open 10:00 am to 5:00 pm Monday through Saturday, and noon to 5:00 pm on Sunday. Visit them at www.sciencecity.com.

If you don’t want to leave Crown Center, take the kids to Kaleidoscope, a children’s

workshop sponsored by Hallmark Cards. The place looks like a giant greeting card and kids are encouraged to explore their creativity and sense of color to design crafts made with left-over materials from the card maker. Are you hungry yet? Check out The Crayola Café or Fritz’s Railroad Café. With “crustless” grill cheese sandwiches, double decker peanut butter sandwiches, and macaroni and cheese on the menu, you’d think your child designed it himself. All this, and you haven’t even been outside yet! For more information, check out www.crowncenter.com.

Don’t miss the myriads of children’s museums and activities centers just a short drive away in Kansas City or Overland Park, KS.

Look up these sites:
www.kidmuzm.org
www.wonderscope.org
www.americanroyal.com
www.benjaminranch.com
www.justglazeit.com
www.buildabear.com
www.hallmarkkaleidoscope.net

If you still have time, visit the numerous parks and lakes, or head out to the zoo. You won’t hear “I’m bored” while in Kansas City! See you there!

Information compiled courtesy of
“Insiders’ Guide Kansas City.”

Ladies Who Lunch

In recent years there has arisen a concern over the “dress code” for the various Wing functions. While most of us err on the side of caution in our attire, and toss into our luggage a favorite skirt and top or a simple dress, some of our new members have been somewhat disconcerted to find, upon entering for the luncheon or reception, that they are slightly underdressed. In the interest of making all of our guests and members feel welcome and comfortable, we offer the following guidelines.

The Wing reception and the business luncheon are generally held in the hotel and members wear semi-formal daytime or business attire. Our all-day and half-day tours are more casual (except where an upscale restaurant lunch is included) and casual clothing is in order. Please keep in mind where the tour is going and what sort of activity is involved as this will dictate your choice of dress. There is often a bit of walking involved on the tours, as well as on-our-own exploring our host city, and good, comfortable shoes are a must.

Our evenings are generally spent at various AsMA events and require more dressy attire, with the exception of the general welcoming reception, which has tended in recent years to be fairly informal. The Fellows dinner is formal, and the Honors Night dinner is black tie. As well, AsMA usually hosts one evening event to showcase a specific venue of the host city, and this too is casual.

However, if you arrive at the meeting and find that what you have packed in your suitcase simply will not do, remember the one accessory which goes with any outfit – plastic! Be it Mastercard, Visa, or Advantage, the local

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shops will take them all, and what could be more enjoyable than shopping for that perfect ensemble.

But no matter what you wear, we hope that you will enjoy our meeting. To paraphrase the Cat in the Hat:

“It matters not what we see you wear

It matters not if you fix your hair

It matters not that you come alone or in pairs

It matters only that we see you there.”

Meet Jillian Newlands – The Wing’s 50th Honorary Member

Jillian Newlands holds both a Bachelor’s and a Master’s degree in education as well as



a Doctorate in philosophy. A Registered Nurse and a Registered Midwife, Jill has worked extensively in both the private and public health sectors. She is a founding member of Flight Nurses Australia, and with input from the flight nurses and avia-

tion specialists in the Royal Australian Air Force, created and taught an aviation nursing course for the University of South Australia. The distance learning course was the first of its kind in the nation. Students in remote parts of Australia, as well as students in New Zealand, Papua New Guinea, Singapore, Beijing, Hong Kong, United Arab Emirates, Japan, and the United Kingdom have taken the course. Jill’s dedication to the development and formalization of flight nurse education in Australia and the South Pacific has resulted in more knowledgeable care to thousands of patients who are transported by air every year.

From 2002-2003, Jill headed the Aerospace Nursing Section of AsMA. She was the recipient of the Brig. Gen. Claire Garrecht Award in 1995, and received the AsMA’s Mary T. Klinker Award in 2000. Currently, Jill holds a position as a Senior Lecturer at the University of South Australia.

In her private life, Jill and her husband, AsMA member Dr. John Newlands, live on a farm in the Fleurier Peninsula region of Australia, where they raise cattle, alpacas, and chickens, or chooks, as they are known locally, as well as tend to their fruit orchard. She is hoping to harvest enough alpaca wool to indulge her passion of crocheting as well as to export to market. Her nursing experience has proven most beneficial on the farm, where she has often been called upon to tend to the ailing livestock. She has even learned to use a “cow-puller,” a device which helps to pull cattle into the upright position when they are unable to stand by themselves.

It is our great pleasure to welcome Dr. Newlands as the Wing’s 50th Honorary Member in recognition of her work in helping to establish flight nurse standards, for her vision in aviation nursing, and for her dedication to AsMA.

NEWS OF CORPORATE MEMBERS

FAA Approval of Airsep's Lifestyle POC Would Benefit Passengers on Oxygen

A proposed federal rule change to 14 CFR 121.574, 125.219, and 135.91 to address the traveling needs of persons on oxygen therapy may allow Airsep's Lifestyle portable oxygen concentrators (POCs), which have been on the market for over 2 years, aboard commercial flights, making travel more convenient for passengers needing supplemental oxygen. Currently, for safety reasons, federal regulations do not allow passengers to bring their own oxygen on board. This makes travel for those requiring supplemental oxygen difficult, as they have to schedule oxygen for each leg of their trip, which is costly, time-consuming, and complicated. The supplemental oxygen can only be furnished by a certificate holder and must meet other requirements such as being safe to dispense while on the aircraft. The oxygen that is available and that meets FAA requirements is compressed oxygen, which is regulated as a hazardous material. Also, air carriers are not required to carry supplemental oxygen, and as a result, many do not provide this service. Those that do charge a fee.

The proposed rule change, which would only allow Airsep's oxygen concentrator because it is the only device of that type the FAA has evaluated and determined to be safe to use on board aircraft, would expand Airsep's market as well as making it more convenient for those needing supplemental oxygen to fly. Devices from other manufacturers may be added after the FAA is satisfied that they, too, are safe to use on board an airplane. In order to be considered safe, a device must first be evaluated by the Research and Special Programs Administration (RSPA) to ensure that it does not contain hazardous materials and, therefore, would not be subject to the hazardous materials regulations. It must then be evaluated by the FAA to determine whether it would pose a hazard in aviation.

Airsep's POC separates oxygen from the nitrogen and other gases that comprise air and delivers it to the user in a concentrated form with a purity of about 90% (plus or minus 3%) at a flow rate of 1 to 5 L per min. As the unit needs its filter changed every 3000 h, there is an hour meter on the unit to let the user know how many hours since the last maintenance check. These devices can operate either from an aircraft electrical outlet or from a rechargeable battery with a duration of 50 min (when fully charged).

The RSPA has determined that the Airsep device does not need to be regulated as hazardous material and has issued a letter to Airsep stating such. While this is an important step, the FAA still needs to evaluate whether the unit poses a hazard in aviation. If they determine that it does not, the FAA can grant an exemption to petitioners.

About Airsep

AirSep is a premier manufacturer of PSA oxygen generating systems for medical and

industrial applications. The company's commercial products and medical products divisions meet a wide variety of respiratory and commercial needs in more than 100 countries.

IFALPA Endorses Aviation English Online

As part of worldwide standardization of English language competencies, the International Civil Aviation Organization (ICAO) will introduce new international English language proficiency regulations in 2008. The aim is to establish and maintain high standards of aviation English language on an international level, with the primary goal of English being the only language used by all pilots and air traffic controllers.

This ICAO directive expects all persons in the aviation industry to have attained what has been classified as the "Operational Level 4" English Standard. This level expects familiarity with the common and work-related terminology and phraseology encountered on the flight deck, in the cabin, and in the workplace, as well as familiarity with the printed word. In addition, the ability to cope with an unexpected turn of events or with uncommon words, phrases, and expressions is expected of those who have attained this level.

In preparation for the ICAO standards being enacted in 2008, IFALPA intends to work closely with the Executive Professional and Tertiary Institute (EPTI), in partnership with Edith Cowan University in Ireland, to offer a course that will achieve the stated ICAO goals. EPTI have created a professional Aviation English Online Course, which IFALPA endorses and believes will assist in fulfilling the ICAO 2008 standardization process.

About IFALPA

The International Federation of Air Line Pilots' Associations represents in excess of 100,000 pilots in more than 95 countries worldwide. The mission of IFALPA is to be the global voice of airline pilots, promoting the highest level of aviation safety and security worldwide and providing services, support, and representation to all of its Member Associates.

Aeromedic Gains New Customers in Charter Market

UK-based charter operators Flyjet, Astraeus, and Titan Airways have all recently selected the Aeromedic Enhanced Medical/Doctor's Kit in support of their expanded longhaul operations.

Lawrence Harding, Managing Director of Aeromedic Innovations said of the orders: "The Aeromedic philosophy of personalized and comprehensive after sales service coupled with state of the art products is ideally suited to the smaller operator where keeping life cycle costs low is of paramount importance. We are particularly pleased to welcome these three new customers on board."

Lockheed Martin to Acquire STASYS Limited

Lockheed Martin Corporation has entered into a definitive agreement to purchase STASYS Limited, a U.K.-based technology and consulting firm specializing in network communications and defense interoperability. This move will strengthen Lockheed Martin's international leadership in net-centric technologies. Terms of the transaction were not disclosed. Serving a diverse range of international defense and civil government customers, STASYS provides highly specialized expertise in tactical data link integration, requirements management, modeling and simulation, and air traffic management consulting. The company's capabilities in the communications arena complement Lockheed Martin's broad portfolio of net-centric technologies in the U.S. and abroad. Closing is expected in early 2005, following satisfaction of certain conditions.

About Lockheed Martin

Headquartered in Bethesda, MD, Lockheed Martin employs about 130,000 people worldwide and is principally engaged in the research, design, development, manufacture, and integration of advanced technology systems, products and services.

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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

Prof. Susan P. Baker, M.P.H., of the John Hopkins School of Public Health, has been appointed to the Armed Forces Epidemiological Board. A Fellow of AsMA, her major interest is in the prevention of deaths and injuries in aviation crashes.

Munna Khan, Ph.D., of Assam, India, formerly a senior lecturer at Jamia Millia Islamia University in New Delhi, India, is now an Assistant Professor in the Department of Electronics and Communication Engineering at the Indian Institute of Technology (IIT) in North Guwahati, India. He has been awarded the 2004 Career Award for Young Teachers from the All India Council for Technical Education, Ministry of Human Resources and Development, Govt. of India; a Consolation Award for IIT Guwahati from the Ministry of Social Justice and Empowerment, Govt. of India; and an Award of Honor from the Indian Society of Aerospace Medicine.

Capt. Lisa K. Snyder, ANG, MC, of Suffolk, VA, has been promoted from major.

New Members

Barth, Thomas H., B.S.M.E., Boulder, CO
 Cooper, Matthew M., M.D., Las Vegas, NV
 Dorney, Michael E., CDR, MC, USNR, Sammamish, WA
 Hettes, Stacey R., Ph.D., Spartanburg, SC
 Hoefer, Matthew H., CPT, MC, USA, Minneapolis, MN
 Hopkins, Mark D., Col., USAFR, MC, Flagstaff, AZ
 Kelley, William A., CAPT, MC, USN, Pensacola, FL
 McBride, Dennis K., Ph.D., Arlington, VA
 Osaro, Oduah D., M.D., Clinton, IA

International New Members

Brazdziuvienė, Edita, M.D., Birzai, Lithuania
 Evetts, George, B.Sc., London, UK
 Grant, Meghan R., B.S., Montreal, QC, Canada

Obituary Listing

We have recently learned that **John T. Heavey, M.D.**, of Palm Springs, CA, died in March 2004. Born in 1908 in Berkeley, CA, Dr. Heavey earned his M.D. at the University of California Medical School in 1933. He spent two years in surgical residency from 1934-1936 and did post-graduate study in surgery in Hungary in 1939. He served as a flight surgeon in the military and was an Associate Fellow of the Aerospace Medical Association.

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MEETINGS CALENDAR 2005

February 15-18, 2005, Galveston, TX.
 Pushing the Envelope, Medicine in Challenging Environments Conference & 26th Annual Operational Aeromedical Problems Course jointly sponsored by the U.S. Army School of Aviation Medicine and UTMB. For information, go to <http://www.trueresearch.org/mice/index.asp> or contact Devin Rokyta, Seminar Manager, d.rokyta@trueresearch.org; or Natalie Biggers, Seminar Assistant, T.R.U.E. Research Foundation, 8610 N. New Braunfels, Suite 705, San Antonio, TX 78217, 210-829-1239, FAX 210-829-5513, n.biggers@trueresearch.org.

February 24-25, 2005, Washington, DC.
 Homeland Defense Training Conference—Medical Planning and Operations in Support of Consequence Management: "Managing the Unthinkable in the Era of Asymmetrical Threats." For information, contact Maurice Martin, Market Access International, 4301 Wilson Blvd. #1003, Arlington, VA 22203; (703) 807-2753; FAX (703) 807-2728; mmartin@marketaccess.org; www.marketaccess.org/ event_consngmt.asp.

March 17-19, 2005, Bangalore, India.
 INTELEMEDINDIA 2005, a conference on telemedicine organized by the Astronautical Society of India and sponsored by the Government of India. For information, or to register, visit www.intelemedindia2005.com, e-mail intelemedindia2005@isro.org, phone 91-80-2341-6279, FAX 91--80-2341-2823, or e-mail M. N. Sathyanarayan, Organizing Secretary, sathya@isro.org; L. S.

Sathyamurthy, Organizing Secretary, lsaty@antrix.org; or S. Satish, Secretariat, satish@isro.org

May 1, 2005, Lisbon, Portugal. 9th Conference of the International Society of Travel Medicine. Lisbon Conference Center. Info: www.istm.org.

May 21-28, 2005, Dominica. The 30th Annual Dive Medicine Conference will be held by the International Society of Aquatic Medicine (ISAM). For more information, contact ISAM, 6240 Turtle Hall Dr., Wilmington, NC 28409; (910) 452-1452; FAX (910) 799-5209; or visit www.diving-docs.org.

May 22-26, 2005, Graz, Austria. 15th IAA Humans in Space Symposium. For more information, visit <http://www.uni-graz.at/space2005>.

July 22-27, 2005, Las Vegas, NV. 11th International Conference on Human-Computer Interaction. Further info: HCI International 2005, School of Industrial Engineering, Purdue University, Grissom Hall, 315 N. Grant St., West Lafayette, IN 47907; hci2005.engr.wisc.edu

September 15-18, 2005, Gold Coast, Queensland, Australia. Conjoint Meeting of the Australasian Society of Aerospace Medicine (ASAM) and the Asia Pacific Federation of Aerospace Medical Associations (APFAMA). The Annual Scientific Meeting of ASAM, together with the 5th Asia Pacific Congress of Aerospace Medicine (APCASM). Contact: Anne Fleming, ASAM Secretariat, +61 3 98991686. fleminga@bigpond.net.au; www.asam.org.au.

2nd Annual MICE Conference

February 15-18, the U.S. Army School of Aviation Medicine and the University of Texas Medical Branch will jointly present Medicine in Challenging Environments: Pushing the Envelope VII and the 26th Annual Army Operational Aeromedical Problems Course in Galveston, TX. This conference is for physicians and health professionals who are interested in practicing medicine in exotic, unusual, or dangerous environments. There will be top experts in fields such as space, aviation, extreme sports, WMD, undersea, military, motorsport, mountaineering, and diving medicine.

Activities at the conference will include activities, workshops, lectures, and breakout sessions such as:

- Pushing the Envelope Breakout – including expeditionary medicine, polar medicine, motorsport, extreme sports, and space medicine.
- Army Breakout – AAMA Aeromedical Update, FDME Admin Workshop, Aviation Resource Management Survey, Lessons Learned from Current Operations, and Aviation Life Support Equipment.

• Army National Guard and U.S. Coast Guard Breakouts – covering topics of specific interest to the Army National Guard and U.S. Coast Guard Aviation Medicine Programs.

• Resident Aeromedical Grand Rounds – Clinical cases of aircrew will be presented by Army Aerospace Medicine residents. There will be in-depth discussions on the aeromedical decision-making involved.

CMEs are available and 24 category 1 credits can be earned towards the AMA Physician's Recognition Award.

For more information or to register, go to www.trueresearch.org/mice/index.asp.

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