President’s Page

It is hard to believe that I am beginning the final third of my term of office as your President. As well as being an honour (honor??) and a privilege, it is a challenge to serve you, the members, in such a way that we keep moving forward together on our metaphorical journey to the stars.

I have endeavoured to meet as many of you as possible, particularly those living and working outside the USA. I have previously mentioned the pleasure of meeting members of the Asociacion Mexicana de Medicina de Aviacion in Mexico, and the successful Academy meeting in Poland. In December I was privileged to represent AsMA at the 3rd Pan-Hellenic Conference of Aerospace Medicine in Athens, and to formally acknowledge the affiliation of the Hellenic Aerospace Medical Association. I have also represented AsMA in places such as Slovenia, Estonia, and Lithuania, as well as meetings of the UK Association of Aviation Medical Examiners and the Royal Aeronautical Society.

I realise that this increasing focus on the international scene can be uncomfortable for some of you who view AsMA primarily as an organisation of the United States. AsMA will always be based in the United States, and its constitution, bylaws, and governance will always be in accordance with the laws and statutes of that great country and society. But when Earth is viewed from space, and when we realise that it is now possible to fly as a passenger half way round the globe, the futility of national boundaries becomes apparent.

During my time as Vice-President for International Affairs, I initially thought we should abolish the concept of international membership. However, the cultural and professional differences are great and I believe that the strength is in recognising and utilising these differences for the benefit of our profession and our Association.

We must all develop a mind set that we are equal members of AsMA - international membership in no way implies second class citizenship, and we each have something valuable to contribute. We can communicate via the web site and email; indeed the success of Dr. Dougal Watson’s Aeromed List is testament to the power of international electronic communication.

So I implore you all, wherever you live and work, to become actively involved in YOUR Association. Don’t wait to be asked to join a committee - look at the web site and sign up to give your colleagues the benefit of your knowledge and expertise.

Best wishes.

Michael Bagshaw
Are We Going Too Far?

Those of us who have been practicing aerospace medicine the past 3 to 4 decades remember well how strict medical standards were for aviators in the military, and in civil aviation, although to a lesser degree. In the early days, not only was major illness permanently disqualifying, but also many medications, including a number with benign side effects. Illustrative of this is the thiazides. As an example, an aviator with mild hypertension treated with thiazides was disqualified by many flying organizations. Undoubtedly these restrictive policies caused considerable anguish within the aviation community and unnecessarily terminated careers. However, as we accrued more experience and information following World II, there was a trend beginning in the early to mid-1970s toward a liberalization of policy.

To my mind a watershed event occurred at an ASMA Business Meeting in 1982 with AsMA President Dr. Stanley White presiding. The subject under discussion was sickle-cell trait (SCT) and flying status. At that time, SCT was considered disqualifying for flying, the rationale being that sickling could be induced at altitude, causing incapacitating symptoms and even death. It was not long before a very heated discussion erupted with some supporting a restrictive policy and others a lenient one. By vote, AsMA took the position that waivers could be issued for this benign condition. Since then, aviators with SCT have been flying many types of aircraft with no reported adverse effects of which I am aware. Another example that might be cited is RBBB, which was considered pathological at that time. Today, we know this is not necessarily true. In most cases it can be classified as a normal variant. Many more such examples could be given. As we have accrued more experience in the air and learned about the course of illness through a number of excellent prospective studies that have enlightened us as to course and prognosis, we have continued to liberalize with increasing confidence to this day.

Today the question might be asked, are we going too far? Aviators are now flying with a very broad spectrum of diseases. Furthermore, exceptions are being made for a large number of medications that might not be so benign; HIV treatment and prophylaxis might be cited as an example. An interesting article appeared in the American Journal of Cardiology (1) citing the case of an aviator diagnosed with hypertrophic cardiomyopathy that was deemed disqualifying by the FAA because of the risk of sudden death as well as the risk of atrial fibrillation (there was significant left atrial hypertrophy) and its sequelae of dizziness and syncope. However, the National Transportation Safety Board, upon appeal, overruled the Federal Air Surgeon, ordering that an exception be made. Are we going too far?

Sometimes when majority opinion seems to overwhelm us, it is much easier to go along with the flow rather than stand firm in one’s own judgment. At times I see a retreat when perhaps we should stand firm. This is not to say that this trend toward liberalization of medical standards should be stopped dead in its tracks, but rather as cases are reviewed, recommendations must come forward based upon our experience, our knowledge and our best judgment. At times this will take courage in the face of a vocal majority with opposing views.

REFERENCE

AMA House of Delegates Meeting

The American Medical Association (AMA) House of Delegates convened in Dallas November 4-8. Drs. Dan Lestage, Michael Berry, and Russell Rayman were in attendance, representing the Aerospace Medical Association. The agenda, as usual, was extremely full, with a large number of resolutions and position papers presented for debate and vote.

The AMA took the lead after the Katrina disaster, donating a large number of medical supplies as well as providing physicians and other medical personnel who deployed to the Gulf Coast areas badly damaged by the storm. The AMA is very active in the area of disaster planning, having passed a number of resolutions encouraging such programs at the national and local level. In addition, the AMA has established a course in basic and advanced disaster preparation for physicians. The AMA also continues to study pay for performance and, in general, supports this initiative, with the proviso that pay for performance is not linked to dollar savings by compromising quality of care.

Medicare cuts continue to be of great concern to the AMA in that they are forcing early retirements and cutbacks in services by many physicians. The issue at hand is not that physician income would be reduced by such cuts, but rather that the costs of providing medical care would exceed income. No profession or business can operate on such terms. At this time there will be a very modest 1% increase in Medicare payments in the coming year, but the threat is always there of cuts in future years.

The AMA has taken an active stand in lowering medical student debts, which is now averaging in the neighborhood of $100,000.00. In addition, in order to allow physician resources, particularly in rural areas and in under-staffed specialties, the AMA is lobbying to ease J1 Visa waiver restrictions. Other policies were approved, including incentive programs for physicians to serve in underserved areas and to ban smoking in all work places. Also, there are initiatives to fight the obesity epidemic in the United States.

There were two resolutions of Aerospace Medicine interest that were supported by your Delegates. One called for the airlines to allow passengers to carry onboard portable oxygen. These devices are lightweight and can be operated by battery. Furthermore, there is no safety hazard in that they do not have gaseous or liquid oxygen. The second resolution called for the surveillance of drinking water onboard commercial aircraft because there has been some evidence of contamination on some flights. However, there have been no reported incidents of illness due to drinking water.

And finally, Dr. Ronald Davis, a specialist in preventive medicine and a great friend of aerospace medicine, will be running for President-Elect of the AMA at the Annual Meeting scheduled for June 2006. If you have any questions, please feel free to contact your representatives named above.

Important Notice

I would urge all attendees at the May Annual Scientific Meeting in Orlando to please stay at the AsMA contracted hotel—the Caribe Royale. This is important because the Association contracts for a block of rooms, which, if we don’t fill, results in a fiscal penalty. Normally when we fill our room block, the hotel gives us lecture halls and exhibit room space gratis. But when we fall short, we are obligated to pay for the space we use. Last year in Kansas City, even though we had an excellent attendance, we fell short of our contracted room block and had to pay the hotel $10,000. Please keep this in mind when you make your reservations. Again, I would very much appreciate it if everyone stayed at the hotel which we contracted with.

Russell B. Rayman, M.D.
Executive Director
Keeping You Informed Of The Latest Advances In Science And Technology
**********

It is commonplace today to go to the local clinic to get an MRI to check if that sprain you got playing soccer is in fact a bruise or worse. Now imagine for a moment that you use that technology to scan the brain tissue to image blood flow patterns. And now further imagine that you can relate those changes in blood flow to actual thoughts! In this month’s Watch, Dr. Bailey brings us up to date on the state of functional MRI and speculates on operational applications for aerospace medicine.

Neural Imaging: A Matter of Thought
Larry Bailey, Ph.D.,
EAA/Civil Aerospace Medical Institute,
Aerospace Human Factors Research Division,
Oklahoma City, OK

Due to recent advances in functional Magnetic Resonance Imaging (fMRI), neuroscientists are able to determine which parts of the brain are activated by thinking. The fMRI technique uses the magnetic properties of blood to map changes in blood flow due to neural activity. Typically, during a scanning session a person is presented with various pictures, sounds, or words while they lie within a magnetic field.

Initially, a single high-resolution scan of the brain is taken to serve as a baseline. As the various stimuli are presented, a series of low-resolution scans are taken at an approximate rate of one image every 5 s. Sometimes the stimulus contains the object of interest (i.e., a given sound, word, or image) and sometimes it does not. By comparing fMRI images when the target is present with images when the target is absent, scientists are able to determine which part of the brain is activated by a given stimulus.

fMRI studies reveal that different kinds of words elicit different kinds of neural activity within the brain. For example, commenting on the work of Kathleen McDermott and colleagues at Washington University in St. Louis, Gerry Everding (1) reports that when rhyming pictures are presented as stimuli, the Broca’s area is activated. In contrast, when the stimuli are word meanings, neural activity increases in the Wernicke’s area. In another study, low-frequency words and pseudowords elicited greater neural activity than high-frequency words in the superior parietal opercular of the left inferior frontal gyrus (IFG), in the anterior insula, and in the thalamus and caudate nucleus (2). Since activation in the pars of the left IFG was observed only for low-frequency words, the authors proposed that this region is involved in processes of lexical selection.

Knowing the precise location of key language areas could help neurosurgeons avoid damage to these areas during surgery. Although the Broca and Wernicke language areas are typically concentrated in two particular regions of the brain in most people, for any given individual the precise location varies. Although pre-surgery brain mapping techniques, such as electrocortical stimulation (ECS), currently exist to identify an individual’s language and memory functions in the brain, these techniques require that the patient be awake and conversant while surgeons systematically probe exposed brain areas. Sometimes, however, patients are not able to respond coherently enough to provide surgeons with the guidance that they need. Thus, advances in fMRI mapping may alleviate the need for patients to be active participants during their surgery.

The interest in fMRI mapping extends beyond its use in surgery. Researchers at the University of California in Los Angeles and the University College in London have employed the fMRI technique to read a restricted number of thoughts (3). The impetus for the research was to help paralyzed individuals better communicate using a “thought reading computer.” Based on fMRI pictures, UK researchers were able to predict which of two pictures a person was viewing. The U.S. team extended this line of research and was able to tell which scenes from a movie clip a person was seeing and hearing. Although the results are encouraging, both research groups emphasized that they were a long way off from being able to read a person’s general thoughts. However, the potential applications beyond the medical world are intriguing.

If generalized thoughts could be read and a fMRI-like device could be worn as a cap, then it might be possible to employ thought monitoring techniques to ensure that people, while performing safety critical functions, were attending to the task at hand rather than drifting off in thought. For example, in air traffic control, controllers relieve one another several times during a shift. A position relief briefing is conducted each time a controller is relieved of his/her position responsibilities. A position relief briefing checklist is used to ensure that safety critical areas are addressed during the briefing. However, there is no way of knowing if the relieving controller understands the traffic situation in the same way as the one being relieved. In a similar fashion, the neural activity of astronauts while performing safety critical tasks within a simulator, could be compared against their neural activity while performing in space. Departures from baseline performance under simulated conditions could serve as an early warning that a mistake is about to be made. Finally, images of a pilot’s neuronal activity while scanning instrument readings may indicate which instrument readings are being processed from those that are not.

Presently, fMRI brain mapping is not sophisticated enough to be able to interpret what a person is thinking without first calibrating the neural activity against a standard set of stimuli. However, as advances in neural imaging continue, it is likely that some sort of generalized neural pattern will emerge to identify some of the more basic human emotions, such as love, joy, surprise, anger, sadness, and fear, as well as the object to which they are attached. Thus, one of the first non-medical uses of fMRI may be as some form of lie detector device for use in interrogations or as a product-testing device for use in marketing campaigns.

As can be seen from these examples, the use of brain mapping techniques outside of medicine brings with it a number of ethical concerns. Perhaps the most important concern is the privacy of thought or at least the expression of thought as evidenced by an activated neural network. Although privacy is thought to be the right of an individual, in reality those rights are governed by the society in which an individual resides. Just as ethical guidelines exist for use of information about an individual’s genome, similar guidelines need to be developed for use of information about a person’s thoughts. Watch for a continuing debate on these social issues.

References

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 content.

Please send your submissions and comments via e-mail to: barry.shender@navy.mil

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

The online version of Aviation, Space, and Environmental Medicine is now available to Members for FREE. Simply go to www.asma.org, log into the Member Home page, and follow the link to the online journal, available through Ingenta.
This Month in Aerospace Medicine History--February 2006
By Walter Dalitsch III, M.D., M.P.H.

Seventy-five Years Ago
Growing popularity of aeronautical engineering as a course of study. "Aeronautical engineering, the youngest member of the engineering family, has out-stripped its brothers in popularity, until now, at New York University. It attracts almost three times as many students as civil engineering, the next largest member of the family.

"Professor Alexander Klemm, head of the Daniel Guggenheim School of Aeronautics, pointed out yesterday that in the last five years the School's enrollment has increased seven percent per cent. The School now has an enrollment of 368, of whom 152 are girls."

"All but two or three of the graduates of the Guggenheim School who have entered the aviation industry have remained in it... Starting salaries range from $35 to $45 per week and a number of the graduates have risen to positions as Chief or Assistant Chief Engineers with salaries around $5,000 per year."

"One of the interesting features of the Daniel Guggenheim School of Aeronautics is the work done by the graduate students. These students are required to prepare a thesis on an original contribution to the field of aeronautics. One of the original investigations carried out thus far was a study of the resistance of aeronautical students by several flying school instructors as Chief or Assistant Chief Engineers with salaries around $5,000 per year."

"During the first two years, the students in aeronautics and mechanical engineering work together. During the summers the students are required to prepare a thesis on an original contribution to the field of aeronautics. One of the original investigations carried out thus far was a study of the resistance of aeronautical students by several flying school instructors as Chief or Assistant Chief Engineers with salaries around $5,000 per year."

Fifty Years Ago
Engineering to students completing the degree of bachelor of science in mechanical engineering to students completing the degree of bachelor of science in mechanical engineering in the vicinity of New York. The School offers opportunities for students to participate in aeronautics and mechanical engineering work and to take practical work in the combination, thus making the windshield contribute to excellent aerodynamic properties with good visibility, thus making the windshield contribute to something more than comfort to the passengers...

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"The biofeedback treatment of airsick aircrew. Biofeedback rehabilitation of airsick aircrew. This report is concerned with two nearly identical cases of collapse during jet aircraft flights. Signs of central nervous system damage were observed in both. The clinical course was fulminant, with death occurring in eleven and one-half and six hours, respectively. Both individuals were obese."

"There was no evidence of faulty oxygen supply during the flights. Pathologically the chief features were: (1) evidence of circulatory collapse; (2) the presence of intense generalized lipemia and fat emboli in the kidney in one case and fat emboli in the lungs and brain in the other; (3) a patent foramen ovale in both with enlargement of the heart in one; (4) many foci of ischemic necrosis in the brain, indistinguishable from those due to air embolism; and (5) acute ischemic change in the spinal cord in one of the cases."

"Piecing together the observations, it is postulated that the following series of events occurred: As a consequence of fairly rapid decompression, fat depots became supersaturated with gas; gas bubbles formed in fat cells, rupturing them, and as a consequence fat gained access to the venous blood stream; gas bubbles emanating from the region of fat depots were carried to the right side of the heart and thence to the lungs, where many bubbles an fat emboli were filtered out (some may have passed the pulmonary filter). This tamponade of the pulmonary circulation produced an elevation of pulmonary blood pressure which was reflected in the right heart, enabling blood laden with bubbles to traverse the foramen ovale and enter the general circulation. Thus, bubbles were carried in sufficient number to the brain to contribute to the fulminant circulatory collapse and death" (4).

"Importance of sunglasses to pilots. "Although no permanent damage to the eye as a result of tropical glare has been recorded, most pilots feel that sunglasses are necessary to protect the eyes, and in a number of cases are universally worn, both when on the ground and in the air... The problem for the flight surgeon is to see that the sunglasses worn by flying personnel meet certain requirements, the most important of which is the transmission of 15 per cent or less light. He must further determine that the glasses worn result in minimum distortion of color perception. For this purpose, neutral density filters are the only truly acceptable type of lens" (6).

Twenty-five Years Ago
"Tobacco smoking and pilot performance (Clinical Aeronautical Medicine, Federal Aviation Administration, Oklahoma City, Oklahoma). "In 1976, the Federal Aviation Administration was petitioned to issue regulations that would prohibit all smoking in the cockpit during commercial flight operations and prohibit pre-flight smoking by crewmembers within 8 hours before commercial flight operations. A review of the literature was conducted to determine the effects on pilots," (6). "Aeromedical evaluators" (7) reviewed the effects of smoking and nicotine on aviation safety. "The biofeedback treatment of airsick aircrew. Biofeedback rehabilitation of airsick aircrew. This report is concerned with two nearly identical cases of collapse during jet aircraft flights. Signs of central nervous system damage were observed in both. The clinical course was fulminant, with death occurring in eleven and one-half and six hours, respectively. Both individuals were obese."

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6. Turner WR. Sunglasses for flying personnel. Tactical Air Command Surgeon's Bulletin; 1956 (Feb).

This publication is available in microform from ProQuest
300 N. Zeeb Rd., PO Box 1346, Ann Arbor, MI 48106-1346. www.proquest.com; 1-800-521-0600.
Proposed By-Laws Change

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 16, 2006, in Orlando, FL. 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 X, Section 4. Rules. “Robert’s Rules of Order, revised, shall cover the procedure at all meetings unless otherwise provided by these Bylaws. All elections and all questions shall be decided by a majority of votes cast.” Replace the last sentence with: “Unless provided otherwise by Robert’s Rules or by these Bylaws, all elections and questions shall be decided by a majority of votes cast.”

This change is to reconcile differences between Robert’s Rules and the Bylaws in the voting process.

AsMA Future Meetings

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

5th International Scientific and Practical Congress--Man in Extreme Conditions: Health, Reliability, and Rehabilitation

The Russian non-government organization, the Association of Aviation, Space, Naval, Extreme and Environmental Medicine of Russia, is pleased to invite you to the 5th International Scientific and Practical Congress, “Man in extreme conditions: health, reliability, and rehabilitation,” to be held on the 16-20 of October 2006 in Moscow, Russia, at pavilion 38, VVC (metro VDNH). Participants will include the Interstate Aviation Committee (IAC), the State Administration of Civil Aviation of the Ministry of Transport of Russia, the Russian Academy of Natural Sciences, the Institute of Medicine of Labour of the Russian Academy of Medical Sciences, the Scientific, Research and Testing Centre of the Aeromedical Medicine and Military Ergonomics of the State Scientific Research, the Testing Institute of the Ministry of Defence of Russia, the State Scientific Centre – Institute of Biomedical Problems of the Academy of Sciences of Russia, the Military Medical Academy, the Russian Medical Academy of Postgraduate Education of the Ministry of Health of Russia, the Centre of Extreme Medicine of Russia, the Central Military Clinical Aviation Hospital of the Ministry of Defence of Russia, and the Medical Service of Air Forces of Russia, as well as other organizations and institutions. The Congress will be conducted in Russian with simultaneous translation in English.

The main topics will be: the effect of professional activities to the body and human performance; human factors and professional activity safety; morbidity of high-risk professions personnel and prophylactic problems; normal values of work, rest, and nutrition of younger and other persons of high-risk professions--prophylaxis of professional diseases; sanitary and epidemiologic control in the transport and its role in prevention of disease; clinical aviation medicine and problems with flight surgeon examinations; health and performance conservation as a key condition for safety of professional activity: rehabilitation of high-risk professions persons including: flyers, air traffic controllers, spacemen, sailors; trace elements and vitamins in the practice of medical support of high-risk professions persons; biological active nutritional supplements and their role in health and performance conservation; and rehabilitation in aerospace medicine: history and perspectives.

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Topic areas may be changed depending on the receipt of authors' presentations to the Congress. We are planning publication of Congress materials. Each participant can send his/her thesis for publication. There is a maximum of three pages with a line space of 1.5, font size of 12, left and upper margins of 3 cm, right margin of 1 cm, and a lower margin of 2 cm. The thesis title should be printed in capitals with the first and last name of the author, company/organization name, and city and country on separate lines (line space of 1.5). A second copy of the thesis should be signed by an author, indicating his position, scientific degree, honors, address, phone, fax, and e-mail. A short summary (up to 10 lines) should be enclosed with the thesis in English, including the thesis title, company/organization, author, city, and country. Two copies of the thesis and summary should be sent in print and in their electronic versions on floppy disk or by e-mail (latter preferred). Please observe the instructions and parameters to be included in the Congress' publication.

The application to participate in the Congress and all the materials for publication should be sent to the following address: 109017 Moscow, Bolshaya Ordynka street 22/21, attention – Professor Vlasov V.D., head of the Department of Aviation Medicine of IAC. Please indicate in your letter if you wish to make a speech (up to 15 minutes) on any particular subject. Information can be obtained at the following phone numbers: (095) 953 58 42 (Mr. Valentin Vlasov), or at phone/fax number: (095) 239 98 51 (Mrs. Dina Valeeva, Mrs. Natalia Mitrokhina), or by e-mail: medic@mail.ru (attention Mr. Vlasov V.D.), or inf.an.asm.ru (attention Mr. Gabbasov I.Z.), fax number: (095) 953 35 08. Speeches for publication should be sent by 30th of June 2006. An exhibition entitled “Professional health and longevity” representing high technology medical equipment and recent achievements in preventive medicine and rehabilitation for persons in high-risk professions, in pharmaceutics, on biologically active additives, etc. will be held during the Congress.

Registration and participation fees are 300$ US. The location of the Congress addresses of hotels, the payment of 1-2 reserved hotel rooms, bank account information for bank transfers in USD or Euro for the payment of the Congress participation fees, and other necessary information will be sent upon request.

AsMA MENTORSHIP PROGRAM

AsMA has a Mentorship Program for our younger members. We encourage you to go to our website and click on “Members Login.” At the Member Home page, click on Mentorship Program. You can sign up as a Mentor or Mentee, or view Participating Mentors—those who have already volunteered to serve.

Aerospace Nursing Society

Garrecht Award Information

The Brig. Gen. Claire Garrecht Award honors an ANS member for the best scientific paper presented during the Annual Scientific Meeting of the Aerospace Medical Association. This award, sponsored by Educational Enterprises, Inc., consists of a plaque and honorarium.

Criteria: Membership in the AsMA and ANS. Abstract must be submitted and accepted for presentation.

Procedure: A copy of the paper following the prescribed format (contact the committee chair for format) must be submitted to:

Awards Committee Chair/ANS
2326 Blue Shutter Road
Edisto Island, SC 29438-6620

Meetings Calendar 2006

February 13-17, 2006, Galveston, TX.
Pushing the Envelope VII/Army Operational Aeromedical Problems Course. Sponsored by UTMB and the U.S. Army Medical Command. Info: www.trueresearch.org/mice

September 10-14, 2006, Bangalore, India. 5th International Congress of Aviation and Space Medicine. This meeting is being hosted by the Indian Society of Aerospace Medicine. A preliminary registration form may be found at http://www.isam-india.org/conference44/newreg.php.

Where’s the Proof?

Evidence Based Medical Certification: An International Challenge

CAM Academy, Orlando, Florida, with AsMA

Sunday May 14, 2006: 8:00 AM- Noon

Speakers: ICAO, JAA, UK, Transport Canada, FAA, New Zealand

Don’t miss it!

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Don’t miss it!
Forty Years of Friendships in
the Wing of the Aerospace Medical Association

By Lois H. Moser

My association with the Wing and its wonderful members began some forty years ago in 1964 when Royce was assigned by the Air Force to the Harvard School of Public Health for phase I of his Residency in Aerospace Medicine (RAM). It was there that I first met Bernice Davis, who gave a baby shower that November to welcome the son we had just adopted. Dr. Ross McFarland was Director of the residency program at Harvard. His wife, Emily, a lovely and somewhat eccentric lady, was President-Elect of the Wives' Wing (as the organization was known then) and insisted that we RAM wives should attend the Aerospace Medicine Meeting in New York City in May 1965. I attended only two days because my Mom did not want to babysit for a 2 year old and an 8 month old any longer than that!

I did not join at that meeting in 1965, but I did attend the Welcome Reception. The President was Mrs. John Talbot, and I was so impressed by the group. These glamorous ladies, all wearing fancy hats and gloves, had a receiving line and an elegant afternoon tea complete with champagne. The airlines sponsored the Hospitality Room, and everyone was so wonderful to us. I was in awe!

The next year we (the Harvard group) along with those who had done phase I at Johns Hopkins and University of California at Berkley, were all together at Brooks AFB in San Antonio for Phase II of the residency. Vl Hansen was the Coordinator for the students’ wives. Blanche Bedwell, a Past President of the Wing, gave us a course on how to be a good flight surgeon’s wife. There I met others who would go on to be active in the Wing, among them Sharon Meader and Harriet Hodgson. The Aerospace Medicine meeting was in Las Vegas that year, 1966, and I was planning to attend, but had to cancel plans when my sitter was hospitalized.

In 1967 the annual meeting of the Aerospace Medical Association was held in Washington, D.C. It was there that I officially joined the "Wives" Wing. Since then I have attended every meeting except two, both of those in Houston, one in 1970 when Royce was assigned by the Air Force to AMP Course that year. We had a Welcoming Merienda at the historic Menger Hotel. A children’s folklorico group entertained, Mexican dancers and then presented each lady with a huge Mexican paper flower. Several of our international members were photographed for the newspaper at the Merienda, and two days later, at the fashion show luncheon at the St. Anthony, including Eka Glazer, Jeanetta Castelo-Blanco, Joan Gelman and Mrs. Isaac Kuroda. Since I was involved with the RAM wives, I recruited those ladies to be hostesses in Hospitality. That's how people like Marilyn Brath and Judy Waring and several others began their long association with the Wing.

I was President during the 35th Coral Anniversary year of the Wing in Las Vegas. Bertie Humbrt and Harriet Buttemiller did the arrangements for me at the Las Vegas Hilton, and it was great fun until I got paint on my coral dress during a Priscilla Hauser Tole painting activity! There were many firsts that year: Marty Tate, our sole male member, was on my Board as Tour Chairman! It was that year that I began "News on the Wing," edited by Carol Stoller. Before that, each President had written a rather formal and proper letter. Then I appointed Sonja Self as liaison to AsMA, another first. Jo Bohannon as well as Blanche Bedwell, a charter member of the Wives’ Wing at that meeting, Blanche, who had attended 33 of the first 35 meetings, shared memories of the early days. As I look at pictures of that meeting I see so many friends that I have known over the years. Those included Cynthia Lee, Vl Hansen, Michelle Douglas, Pat Unger, Alice Neel, Sharon Meader, Kathy Deane, Val Nicholson, Debbie Anzalone, Ursula Mohler, Sallypahn Hawkins, Mary Margaret DeHart, Faye Davis. I could go on and on. I feel so blessed.

There were other coincidences. In 1988 Helen Lestage was President of the Wing and I followed her in 1989. Dan Lestage was President of AsMA in 1989 and my husband, Royce followed him as President that year.

So many years, so many friends, so many cities, such wonderful experiences, such wonderful friendships. I encourage each person just thinking about joining the Wing to do so. Membership engenders such meaningful and very special relationships.

Lois and Royce Moser enjoy Honors Night.

In 1981, AsMA met in San Antonio for the very first time. I was Arrangements Chairman for the "Wives" Wing, and Sally Hightower was my assistant. We planned a meeting that no one could forget, and we got several pages of coverage in the local papers. The reception was a Welcoming Merienda at the historic Menger Hotel. A children’s folklorico group entertained, Mexican dancers and then presented each lady with a huge Mexican paper flower. Several of our international members were photographed for the newspaper at the Merienda, and two days later, at the fashion show luncheon at the St. Anthony, including Eka Glazer, Jeanetta Castelo-Blanco, Joan Gelman and Mrs. Isaac Kuroda. Since I was involved with the RAM wives, I recruited those ladies to be hostesses in Hospitality. That’s how people like Marilyn Brath and Judy Waring and several others began their long association with the Wing.

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Join the Wing!

Dues are $20 per year.
For further information, contact: Judy Waring, 4127 Kenyon St., Seattle, WA 98136;
(206) 933-0884; e-mail: judywaring@comcast.net

Send information for publication on this page to:

Dale Orford
15516 E Acacia Way,
Fountain Hills, AZ 85268
480-837-7919; dorford@cox.net
AOPA Uses TV Ad Campaign to Show Importance of GA

General aviation (GA) touches every American in an infinite number of ways. From assisting with hurricane relief efforts to air ambulance and other types of humanitarian flying, GA has become an integral part of everyday life. To highlight GA's benefits to society and promote the world-class educational GA Serving America Web site, the Aircraft Owners and Pilots Association (AOPA) once again will be airing TV commercials on the Weather Channel during the busy holiday travel season.

New this year is a spot focusing on GA security in addition to the four rotating commercials that ran last year. The new commercial is shot in the cockpit of a GA airplane with more than 30 percent of the play. The commercials will run about 125 times during a crucial time when pilot and non-pilot viewers alike are paying close attention to weather forecasts to get to their destinations.

The TV spots will address five key themes: GA is the largest segment of aviation; GA flies to all 5,400 public-use airports, not just the handful serviced by airlines; GA is the training ground for the airlines and the military; GA is a critical part of an entire transportation system; and GA does not represent a terrorist threat.

The commercials are expected to reach more than 30 million viewers and direct them to the GA Serving America Web site. The site clearly shows that GA does everything from catching criminals to protecting crops, to shipping packages, to assisting with hurricane relief efforts to air ambulance and other types of humanitarian fly- ing scenarios to participants' education level physiological reactions on monitors in operating rooms, intensive care units, and emergency rooms, to training for medical professionals.

Mayo Clinic Opens Medical Simulation Center

Mayo Clinic College of Medicine recently opened the Mayo Clinic Multidisciplinary Simulation Center, a 10,000-square-foot facility on the first floor of the Stable Building in downtown Rochester. Heretofore, state-of-the-art technology simulates real-life patient care settings to complement traditional clinical training for medical professionals.

Mayo’s simulation center is designed to be among the world’s largest medical simulation facilities in physical size and breadth of courses offered. The center includes realistic full-patient simulators (mannequins) that can be programmed to show complex symptoms and react just as a patient would to treatment decisions. For example, mannequins respond to administered (simulated) drugs and display physiological reactions on monitors in operating rooms, intensive care units, and emergency rooms just as in real life. Other simulators train for specific procedures, including the newest methods of minimally invasive surgery and heart procedures. In addition, rooms that look identical to patient rooms can transform to a full-scale mass trauma setting in minutes. Simulation center faculty can tailor each training scenario to participants’ education level and need.

See MAYO CLINIC, p. 172.
MAYO CLINIC, from p. 171.

About Mayo Clinic

Mayo Clinic is the first and largest integrated group practice in the world. Doctors from every medical specialty work together to care for patients, joined by common systems and a philosophy of “the needs of the patient come first.” More than 2,500 physicians and scientists and 42,000 allied health staff work at the original clinic in Rochester, MN, and newer clinics in Arizona and Jacksonville, FL. Collectively, the three clinics treat more than half a million people each year.

Baxter Launches Sevoflurane in China

Baxter Healthcare Corporation recently announced the launch of sevoflurane, the world’s most widely-used inhaled anesthetic, in China. The company also unveiled its plans for a phased launch of sevoflurane in additional geographies throughout 2006, including the United States, Japan, and, upon regulatory approval, certain European markets. Baxter’s sevoflurane is chemically and therapeutically equivalent to Ultane® (Abbott Laboratories). The addition of sevoflurane distinguishes Baxter as the only company that offers all three modern inhaled anesthetics globally – sevoflurane, Suprane® (desflurane, USP), and Forane® (halothane, USP). In addition, Baxter offers the intravenous anesthetic, propofol, in the United States.

Inhaled anesthetic agents such as sevoflurane are administered to patients through vaporizer machines. Baxter’s sevoflurane is compatible with the same vaporizers as the branded product. In addition, to assure a seamless transition to the generic product, Baxter will offer customers access to vaporizer machines as part of a vaporizer placement program.

About Baxter

Baxter Healthcare Corporation is the principal U.S. operating subsidiary of Baxter International Inc. Baxter International Inc., through its subsidiaries, assists healthcare professionals and their patients with the treatment of complex medical conditions, including cancer, hemophilia, immune disorders, kidney disease and trauma. The company applies its expertise in medical devices, pharmaceuticals and biotechnology to make a meaningful difference in patients’ lives.

ETC’s Sterilizer Division Announces New Contracts

Environmental Tectonics Corporation’s (ETC) Sterilizer Division announced recently that it has been awarded a major contract from Baylor Medical College, Houston, TX, to supply fourteen autoclave sterilizers. In addition, ETC was awarded another large cage and rack sterilizer contract from Georgetown University, Washington, DC, as well as a large field retrofit project for Luipoldt Pharmaceuticals in Shirley, NY.

ETC’s consultative engineering approach and ability to provide the largest capacity equipment specifically designed to fit within the confines available gave them a noticeable advantage over many other autoclave manufacturers.

About ETC

ETC designs, develops, installs and maintains aircrew training systems, public entertainement systems, process simulation systems (sterilization and environmental), clinical hyperbaric systems, environmental testing and simulation systems, and related products for domestic and international customers.

SAIC to Provide Systems Development Services to NEDSS

Science Applications International Corporation (SAIC) recently announced it was awarded a $27.6 million contract to support the Centers for Disease Control and Prevention (CDC), providing full Systems Development Life Cycle services for the continued design, development, and implementation of the National Electronic Disease Surveillance System (NEDSS), Program Area Modules (PAMs), and CDC Area Modules (CAMs). This time and materials award has a base year worth of $11,149,525 and two option years worth $10,299,532 and $10,150,162, respectively, for a combined total of $31,559,219.

The NEDSS project is CDC’s public health initiative to provide a standards-based, integrated approach for disease surveillance in state and local public health departments. A key objective for NEDSS is to improve the nation’s ability to identify and track emerging infectious diseases, investigate outbreaks and to monitor disease trends. The contract awarded to SAIC is an extension of the NEDSS Base System deployed by the CDC in 2003. The PAMs are disease specific and designed to run at health departments nationwide, with or without the NEDSS Base System. CAMs are designed to reside at the CDC as part of the CDC external Web presence.

Over the last two years, SAIC has worked with CDC to enhance the NEDSS system, including the introduction of a flexible, layered architecture that supports commonality and code reuseability. CDC will soon have a flexible and extendible platform on which to base a broad set of program-specific surveillance requirements.

Modules for tuberculosis, varicella, and lead poisoning will be the first PAMs released by the CDC. SAIC and the CDC have worked on an extensive outreach campaign with state and local health department stakeholders, in a concerted effort to significantly improve the interface design, and boost user acceptance and interest in using CDC software.

About SAIC

SAIC is an engineering company with annual revenues of $7.2 billion and more than 43,000 employees in over 150 cities worldwide. SAIC engineers and scientists solve complex technical problems in national security, homeland security, energy, the environment, space, telecommunications, health care, and logistics.

Sanofi-Aventis Announces Results of Breast Cancer Study

Sanofi-Aventis Group recently announced the results from the first interim efficacy and updated safety analyses from the BCIRG 006 Phase III breast cancer study, which show that HERCEPTIN® (trastuzumab) combined with TAXOTERE®-based regimens significantly improved disease-free survival for women with early HER2-positive breast cancer. This data was presented at the 21th Annual San Antonio Breast Cancer Symposium (SABCS) in San Antonio, TX.

Cardiac and global safety data, together with the interim efficacy analysis based on 322 events, were reviewed by an Independent Data Monitoring Committee (IDMC). The relative reduction in the risk of relapse were: 51% (95% CI: 35%-63%), p-value of < 0.001, and 39% (95% CI: 21%-53%), p-value of < 0.001 for the AC-TH and TCH arms, respectively, when compared to the control arm of AC-T. There was no statistically significant difference between the two HERCEPTIN®-containing experimental arms. Overall survival data is not yet mature.

The study enrolled a total of 3,226 women with early-stage HER2 positive breast cancer between March 2001 and February 2004. Women eligible for study participation were randomized to receive one of the following three treatment arms after primary surgery and lymph node sampling: a standard treatment of four cycles of doxorubicin and cyclophosphamide followed by TAXOTERE® for four cycles (AC-T); an experimental arm of the above regimen together with 1 year of HERCEPTIN® started concomitantly with TAXOTERE® (AC-TH); and an additional experimental arm of six cycles of TAXOTERE® and carboplatin with 1 year of HERCEPTIN®, the latter started at the same time as the chemotherapy (TCH).

A total of 306 patients experienced a > 10% relative asymptomatic decrease in left ventricular ejection fraction (LVEF), as follows: 91 pts (9%) in the AC-T arm, 180 pts (17.3%) in the AC-TH arm, and 82 pts (8%) in the TCH arm. Contrary to what was previously thought, the majority of patients treated with a doxorubicin-based therapy experienced a sustained loss in LVEF over time (> 550 days at the date of this analysis). In addition, a mixed model analysis of ejection fraction showed a statistically significant (p < 0.001) decline in LVEF for both doxorubicin-containing arms AC-T and AC-TH, but not for TCH. The BCIRG 006 study data demonstrated that the vast majority of the TCH declines recovered fully.

About Sanofi-Aventis

The Sanofi-Aventis Group is the world’s third largest pharmaceutical company, ranking number one in Europe. Backed by a world-class R&D organization, Sanofi-Aventis is developing leading positions in therapeutic areas: cardiovascular, thrombosis, oncology, metabolic diseases, central nervous system, internal medicine, and vaccines.

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For more information on becoming a Corporate Member, please contact Gloria Carter at (703)739-2240, ext. 106, gcarter@asma.org; or Dr. Marian Sides at: mbsides3@myexcelf.com
NEWS OF MEMBERS

Colonel David E. Geyer, USAF, MC, CFS, formerly Chief, Aerospace Medicine and Readiness Division, Office of the Command Surgeon, Headquarters Air Mobility Command, Scott AFB, IL, is now serving as the Command Surgeon, United States Strategic Command, Offutt AFB, NE.

Col. Ki-young Chung, MC, MS, SFS, who was serving as Commander, the Armed Forces Busan Hospital, AFMC, Haeundae-Gu, Busan, in the Republic of Korea, has been promoted to Commander, the Aerospace Medical Center, ROKAF, Namil-moon, Cheongwon-gun, Choongbuk, in the Republic of Korea. He recently received the President’s Award from the Republic of Korea. He recently received the

New Members

Chipchase, Helen E. S., M.B., Ch.B., B.Sc., Aberdeenshire, UK
El-Khaldy, Montaser F., M.B., B.S., R.A.K., United Arab Emirate
Gaines, Kathryn D., Capt., USAF, MC, Charleston, SC
Harder, Evelyn, Capt., USAF, MC, APO, AP
Membrino, Dylan, B.S., Thornton, PA
Oeittmann, Timothy R., LT, MC, USN, Pensacola, FL

Workshops in Orlando

1. Aircrew Fatigue: Causes, Consequences, and Countermeasures
Sunday, May 14; fee $120; 3 hours Cat. 1 CME; MOC
Leaders: John and Lynn Caldwell
The workshop will outline the importance of addressing fatigue as a danger in aviation, the basic physiological mechanism underlying fatigue, and the most common causes of fatigue in air transport and other settings. Ways to recognize fatigue in operational environments and information about the efficacy of various countermeasures, including specific information about countermeasure techniques such as proper work/rest schedules, adequate sleep, napping strategies, rest breaks, circadian entrainment, stimulants, and others will be provided.

2. Management of R D & E Programs
Sunday, May 14; fee $120; 4 hours Cat. 1 CME
Leader: Estrella Forster
This workshop will discuss the implementation of the International Organization of Standardization (ISO) quality standards in a research organization and how it has provided a framework for the improved definition of research processes and their products. The discussion will include an introduction to ISO standards, their application in a government research organization, demonstration of software utilized to track progress, and the resulting benefits from this approach to quality in RED laboratories. Participants will understand ISO 9000:2000 and ISO 9001:2000 Standards and learn how they may be implemented in a research organization in terms of its communication, purchasing, product planning, design, development, resources, laboratory, control of nonconforming products, and customer-related processes.

You must register for these workshops using the meeting registration form.

International Aerospace Physiology Certification

The Aerospace Physiology Certification Board of the Aerospace Medical Association will administer the certification examination at the 77th Annual Scientific Meeting in Orlando, FL, on Sunday, May 14, 2006.

Individuals interested in certification should refer to the November 2005 issue (page 1095) for more information.

Applications must be made prior to March 1, 2006, to assure consideration for the 2006 examination. Applications received after that date cannot be guaranteed consideration for the 2006 exam. Any late applications not considered for 2006, but will automatically be held in abeyance for consideration for the 2007 exam.

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

Maj. David A. Welge, BSC, USAF
3801 Basswood Dr.
Alamogordo, NM 88310
david.welge@holloman.af.mil

This is also the address to send completed application packages to.

SPACE MEDICINE BRANCH YOUNG INVESTIGATOR AWARD

The Space Medicine Branch’s Young Investigator Award is presented to a young investigator who is the primary author of an outstanding presentation in the area of Aerospace Medicine presented at the current Annual Scientific Meeting of the Aerospace Medical Association. In addition to being the primary author, the work must be original and the young investigator must be presenting at the Annual Scientific Meeting for the first time. The Award is intended to encourage young investigators new to the field of Aerospace Medicine.

The applicant must submit a draft manuscript if their presentation to the chair of the Young Investigator Award subcommittee. To be considered for the 2006 award, manuscripts must be submitted by March 15, 2006 to:

K. Jeffrey Myers, M.D.
Space Medicine Branch
Young Investigator Award Chair
P.O. Box 540305
Merritt Island, Florida 32954
Phone: (321) 867-2026
jeffrey.myers-1@kmail.ksc.nasa.gov

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

Remember!

AsMA Council Meetings and Business Meetings are open to all members of the AsMA. The next Council meeting will be on May 14, 2006, in Orlando, FL.

The Annual Business Meeting will be May 16, 2006, in Orlando, FL. Lunch is optional.

Your input and attendance at both meetings are always welcome. Please come and participate in your Association.

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