

President's Page

As I pen this message I am returning from Boston, MA, the site of the AsMA annual scientific meeting in May 2008. What an exciting city, rich in history and culture!

The convention hotel will be the Sheraton Boston, ideally located within the heart of the city. Opening ceremonies and the exhibits will be in the Hynes Convention Center, which is adjacent to the hotel and connected by a short walkway. All other functions will be in the hotel.

One need not rent a car in Boston. Walkways connect the hotel to the Prudential Mall with its fine food court, as well as the Copley Mall. A number of fine restaurants can be reached without venturing outside. Walking is quite safe, and innumerable fine eating establishments are located within easy reach by foot. Fenway Park, home of the Boston Red Sox, is a short walk from the hotel.

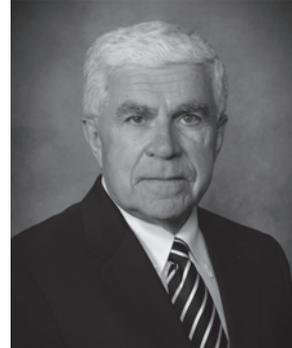
Boston has a highly developed and efficient metropolitan transportation system, known as "the T system." The Orange Line can be reached via the Prudential Mall, and T system stations are located "on nearly every corner" throughout the city. For example, historical sites are within 2-3 T stops of the hotel.

The Charles River runs through Boston, and one can cruise by the places that make Boston the birthplace of freedom in an authentic World War II amphibious landing vehicle. The "Duck" splashes into the Charles River, offering breathtaking views of the Boston skyline, Cambridge, and historical sites during a 90-minute tour.

In addition to the Prudential and Copley Malls, a shopping district known as "the Rodeo Drive of Boston" is within a short walk from the Sheraton.

I have no doubt that Boston will be a great site for our 2008 meeting. I know the Sheraton and the city of Boston will be great hosts. We also want to put on a great meeting for the Association.

We gave close attention to the details of the Boston meeting when the Executive Committee convened in August, though advance planning was already under



John D. Hastings, M.D.

way. As I mentioned in an earlier message, one of my goals for the year is to emphasize the international aspect of our Association. International members comprise 28% of the Association. I have decided to have the International Members Reception on Tuesday night in Boston. I selected Tuesday, which has often been a "free" night, to avoid conflicting with other events which create a busy schedule on all other nights. We want the International Reception, as well as the other receptions and events, to be memorable for all who attend.

Please remember that the deadline for submission of abstracts for the Boston meeting is October 31, 2007, which will soon be upon us, and the Scientific Program Committee meets the following month. Please keep this date in mind as you put the final touches on your submissions.

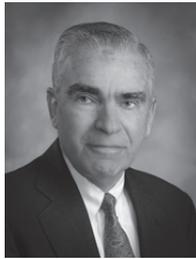
I have not forgotten that Mike Gibson offered to bring his bagpipes to Boston and play for us. Unless he tells me they were lost in a heist, I plan to hold him to his word.

In all seriousness, we will do our best to have an outstanding meeting on Boston come May 2008.

Please come and join us!

Medical News

Executive Director's Column



Rayman

Updates

In recent months, Senator Harkin (D-IA) had prepared a Bill S-1120, the Preventive Medicine & Public Health Training Act, calling for increased federal funding for preventive medicine residencies. It was not clear if the Senator meant only general preventive medicine or occupational medicine and aerospace medicine as well. Consequently, the American College of Occupational and Environmental Medicine and your Aerospace Medical Association contacted the Senator's office asking that all three specialties be included in the language of the Bill since all three are preventive medicine specialties. We hope that this will be achieved in that if the Bill passes Congress, a considerable amount of money will be available for residency training beyond what is available today. However, according to my understanding, this applies only to civilian residencies which, in our case, would be the programs at Wright State University and the University of Texas Medical Branch.

The case of the passenger with drug resistant tuberculosis (XDR-TB) who made several international flights has received considerable media attention. The fear is that this passenger might have transmitted a virulent infection to passengers and crewmembers on two transatlantic flights during the month of May. One can understand the concern, especially with our current interest in emerging infections as well as bioterrorism. A critical aspect of a case such as this is reporting to public health authorities. The World Health Organization (WHO) has already published such guidelines. As a result, proper reporting procedures were implemented and the passenger with TB was located and referred to a hospital for treatment.

Although we must not become complacent about such cases, the risk to other passengers is probably very small. Approximately 10 years ago, the CDC published the results of their investigation of passengers and crewmembers who had flown with active tuberculosis and found the risk is increased by proximity to the case (within two rows), duration of the flight (8 hours), and infectivity of the passenger. Of course in such cases, prevention is the wisest course. Passengers with active TB should not be flying and should be under medical care. But in some cases, it is possible an unknowing passenger

with TB may fly on commercial aircraft. Although this is certainly a serious incident, we must be cautioned against reacting hysterically. Rather, a measured response according to established deliberative guidelines is the best course.

It would seem to most observers that we may see the end of the Age-60 Rule in the foreseeable future. It has been noted that the Airline Pilots Association (ALPA) seems to be changing its policy, which was originally supportive of the Age-60 Rule. If the United States goes along with the ICAO standards, the age will be increased to 65 and, of course, this invites perhaps new arguments regarding the Age-65 Rule. In other words, where do you draw the line?

Your Home Office is currently beginning its work for our meeting next year in Boston. Further information will be forthcoming.

AMA House of Delegates

The AMA House of Delegates held its Annual Meeting in Chicago June 23-27. In attendance were your delegates and representatives Drs. Dan Lestage, Mike Berry, Glenn Merchant, and Russell Rayman. This was undoubtedly the busiest meeting held in many years in that 354 resolutions and position papers were debated and put to a vote on the House floor in just 2-1/2 days. This seems to be miraculous in that there are approximately 550 Delegates in attendance (compare this to our own Business Meeting when we have approximately 100 members in attendance debating just 1 to 3 resolutions).

The two major items of this meeting had to do with Medicare and pay-for-performance. Medicare physician payment faces a 40% cut over the next 9 years with medical costs expected to increase by 20%. A 10% cut is expected for 2008. This is obviously an untenable position for practicing physicians. It is anticipated that these cuts will result in 75% of physicians no longer accepting Medicare patients or reducing the number they will treat. The AMA has a vigorous campaign against this on Capitol Hill and urges physicians to call their respective representatives in Congress. Pay-for-performance is a program whereby physicians are rewarded with higher payments if they meet certain criteria. The AMA is taking a very cautious approach on this program since these criteria might be linked to cost containment. If this were the case, the quality of medical care would decline accordingly. Rather, the AMA could support pay-for-performance only if the criteria were clearly linked to quality of care devoid of financial incentives. This program will be an ongoing debate in the coming years.

In addition, a number of policy statements were approved regarding obesity, nutrition, and tobacco. There is no question that the AMA supports prevention particularly in these three vital areas. Indicative of this is the election of Dr. Ron Davis, who is board

certified in preventive medicine, as President of the AMA. He was inaugurated in a very impressive ceremony on the last day of the meeting. Dr. Davis is currently Director, Center for Health Promotion and Disease Prevention, Henry Ford Health System in Detroit. Undoubtedly, prevention will continue to be of great concern during his term of office.

Of particular interest to AsMA is a very well-crafted resolution introduced by the Medical Students Section. The resolution is as follows:

"Therefore be it resolved: that our American Medical Association reaffirm its policy which supports the continuation of medical research on manned space flight and the International Space Station and, Be it further resolved; that our AMA publicly support the National Aeronautics and Space Administration's new commitment for manned space exploration of the Moon, Mars, and other celestial bodies for the benefits to medicine and advances in patient care."

AsMA member and medical student Joe Novak was instrumental in the preparation and presentation of this resolution. Although this resolution was first opposed by the Massachusetts Delegation, the Medical Student Section was able to persuade their representatives to support it. When the resolution was brought to the House of Delegates floor, your Aerospace Medical Association delegation gave its strong support. Consequently, it passed overwhelmingly.

The AMA House of Delegates is an extraordinary institution. The leaders are extremely knowledgeable and are sincerely dedicated to quality patient care. Most of them are in the trenches involved in daily patient care, so they are very familiar with the problems within our health care system. I would urge all American physicians to join the AMA.

This particular House of Delegates meeting was a watershed for AsMA in that our delegate, Dr. Dan Lestage, after 20 plus years serving as our Delegate, will retire from this position. Dan has served us extraordinarily well particularly because of his knowledge of the intricacies of our health care system. Dan was thanked at the meeting for his years of service. Our new delegate will be Dr. Mike Berry, who will occupy the Chair for the first time at the next House of Delegates meeting scheduled in November.

Articles of Aeromedical Interest

Here is the latest listing of journal articles published in other journals that may be of interest to you:

1. Muhm MJ, Rock PB, McMullin DL et al. Effect of aircraft-cabin altitude on passenger discomfort. *N Engl J Med* 2007; 357:18-27.

This Month in Aerospace Medicine History-- September 2007

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

Seventy-five Years Ago

An improvement of the depth perception tester to prevent cheating (Cincinnati, OH): "The photographs presented herewith represent a modification of, and an attempt at improvement of the depth perception apparatus now in use. The object being proper illumination without glare into the eyes, as is sometimes complained of with the use of the light six feet above the apparatus. To remove all shadows within the apparatus and to prevent the applicant from looking over the top. It may be worthy to note here that since the apparatus has been changed, applicants frequently comment that they cannot see over the top, and therefore the test is harder than at other places, where they can look over the top.

"The modification is an attachment that is simple, fitting over the top of the apparatus now in use, and which can be lifted off at will" (3).

Fifty Years Ago

First wings for Army flight surgeons: "First award of silver Army aviation wings to fifty Army Medical Corps officers stationed around the world, in assignments ranging from research to clinical practice, marks the newest development in the expanding Army aviation medicine program, according to an announcement by Major General Silas B. Hays, Surgeon General of the Army. Distribution of the new badge is expected to be made by the latter part of 1957. It has the Aesculapian staff, the symbol of Army medicine, superimposed on the shield of the Seal of the United States centering the wings.

"Officers designated to wear these wings have noncrew member flying status and pay, and also perform clinical duties for non-flying personnel. They are qualified to conduct medical examinations for flying, exercise supervi-



Depth perception - The modification to the depth perception tester pictured here kept applicants from looking over the top and also reduced glare and removed shadows from within the apparatus.

sion over the health of flying personnel and furnish medical advice related to Army aviation units. Training in aviation medical is given these officers at the Air Force School of Aviation Medicine, Randolph Air Force Base, Texas, or at the Navy School of Aviation Medicine, Pensacola, Florida" (2).

Twenty-five Years Ago

Hot topics in aerospace medicine in 1982: The September 1982 issue of the journal included highlights from the Aerospace Medical Association's 53rd Annual Business Meeting held May 1982 in Bal Harbour, FL. The issue included the current Constitution and By-Laws, a membership directory, and a summary of the annual business meeting, among other items. Resolutions from the annual meeting were printed in the issue, including:

"Resolution #82-1
"WHEREAS: There is conflicting evidence in the medical literature, based upon case reports, that individuals with Sickie Trait maybe at risk of developing significant and possible incapacitating morbidity in hypoxic environments; and

"WHEREAS: There are insufficient means to identify the individuals with Sickie Cell Trait who are at risk or to quantify the degree of risk, and that more research is required before rational, scientifically defensible decisions can be made concerning the safety of such individuals in the aviation environment;

"THEREFORE BE IT RESOLVED: By the AsMA at its 53rd Annual Business Meeting at Bal Harbour, Florida, on May 11, 1982, that further research into the risk of Sickie Cell Trait in aviation is urgently needed."

"Resolution #82-2
"WHEREAS: The U.S. airline medical departments have experienced in 1981 major reductions in physician staff, aircrew preventive medical maintenance and examination programs, as well as the elimination of long-standing airline medical departments; and

"WHEREAS: The medical departments of airlines throughout the world, as well as those of the military services, have long demonstrated the value of aerospace medical programs to aircrew health maintenance and performance efficiency; and

"WHEREAS: The medical departments of airlines throughout the world have additionally given invaluable support to nonflight crew members, namely flight attendants, dispatchers, and other ground support and maintenance personnel;

"THEREFORE BE IT RESOLVED: By the AsMA at its 53rd Annual Business Meeting at Bal Harbour, Florida, on May 11, 1982, that all airlines be encouraged to develop and maintain meaningful aerospace medical departments or programs as an aid to aircrew health, well being and safety, consistent with proven modern medical understanding."

"Resolution #82-3
"WHEREAS: The primary purpose of the cabin attendant in commercial aircraft is to assist the passengers in the event of inflight incident of accident; and

"WHEREAS: It is recognized that women in an advanced state of pregnancy are compromised in their mobility, their balance, and their agility;

"THEREFORE BE IT RESOLVED: By the AsMA at its 53rd Annual Business Meeting at Bal Harbour, Florida, on May 11, 1982, that the Department of Transportation be urged to review the possible need for guidelines regard-

ing pregnant cabin attendants serving aboard operational commercial aircraft."

"Resolution #82-4
"WHEREAS: The United States Congress has mandated a reexamination of the present mandatory retirement of air carrier pilots upon reaching their 60th birthday; and

"WHEREAS: Expert committees of the National Institute of Medicine and the National Institutes of Health have examined data bearing on this question and have submitted a report summarizing such data, and have recommended retention of the present regulation and its extension to cover other pilots engaged in carrying passengers for hire; and

"WHEREAS: The NIH report concludes that the current state of the art in medicine and performance assessment does not permit the accurate prediction of those pilots who may become incapacitated or unable to function safely because of age-related disorders; and

"WHEREAS: Such incapacitation or functional impairment poses a potentially serious threat to flight safety;

"NOW THEREFORE BE IT RESOLVED: By the Aerospace Medical Association at its 53rd Annual Business Meeting at Bal Harbour, Florida, on May 11th, 1982,

"That the present Federal Aviation Regulation requiring retirement of air carrier pilots upon reaching their 60th birthday be retained;

"That this regulation be broadened to include other pilots carrying passengers for hire; and

"That the Federal Aviation Administration and other appropriate Federal agencies be encouraged to conduct, sponsor, and collaborate in studies designed to provide data that may permit a more flexible approach to be taken to this question in the future" (1).

References

1. Minutes of the 1982 Business Meeting. *Aviat Space Environ Med*, 1982; 53(9):861-4.
2. Official wings given Army aviation medical officers. *J Aviat Med*, 1957; 28(4):427.
3. Topmoeller WJ. Suggested modification of the depth perception apparatus. *J Aviat Med*, 1932; 3(3):156-7.

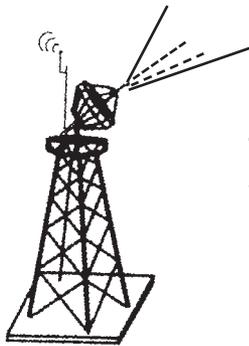
Archival DVD for Sale!

73 years (1930-2002) of the Aerospace Medical Association's Blue Journal on one convenient DVD! Free up shelf space with this set of searchable PDF files!

Members: \$50
Non-Members: \$150
Institutions: \$300

Plus shipping: \$5 U.S./\$10 International
(VA residents please add 5% sales tax)

To order contact Sheryl Kildall at 703-739-2240 x 107; via e-mail at skildall@asma.org, or download the order form from www.asma.org/journal/archives-order-form.pdf, fill it out, and fax it to 703-739-9652.



Science & Technology Watch

Keeping You Informed Of The Latest Advances In Science And Technology

This month's column reports on an effort conducted by scientists and engineers at the US Army Aeromedical Research Laboratory (US-AARL) and Active Signal Technologies, Inc. (AST) (Linthicum Heights, MD) to develop an instrument that permits auscultation of heart and lung sounds in Army MEDEVAC vehicles and other noisy environments.

Auscultation in Noise – A Paradigm Shift

William A. Ahroon, Ph.D., Adrianus J.M. Houtsma, Ph.D., and Ian P. Curry, B.M., B.S., U.S. Army Aeromedical Research Laboratory, Fort Rucker, AL

Since its invention in 1816 by Laennec, the stethoscope has been useful in the diagnosis of countless diseases and illnesses. However, because of the theories used in the designs of auscultation instruments, stethoscopes have been ineffective in diagnosing injury or illness in noisy environments. The ineffectiveness of traditional and newer “digital” stethoscopes in noisy environments has led to the belief by most that auscultation cannot be performed successfully in noise. That knowledge can now be revised with the development of an instrument that is highly effective in detecting heart and lung sounds in very noisy environments, such as Army MedEvac vehicles.

Recent approaches to improving stethoscopes to function in noisy environments have focused on electronic amplification and digital signal processing. However, in many auscultation environments, the signal to which the caregiver is listening lies within the spectrum of ambient noise that is interfering with the heart and breath sounds. Therefore, (either analog or digital) filtering of the interfering noise also attenuates the sounds of interest. A recent paper (1) reported that digital stethoscopes have an advantage over traditional, mechanical stethoscopes only in that a digitized acoustic signal can be transmitted to a remote location for view by another caregiver. Other assessments of traditional technologies, such as active noise reduction, have likewise proved less than optimal for auscultation in high-noise environments (2).

Noise enters the auscultation chain in several locations: at the listener's ear, through the stethoscope's acoustic tubing, at the stethoscope head, or from transmission of sound and vibration through the body of the

patient. Some of these vulnerabilities can be mitigated through innovative technologies such as tight-fitting earpieces, the substitution of electronics and wires for the acoustic tubing, or by isolating the patient from vibration.

The first step in developing a noise-immune stethoscope focused on the instrument's head to improve the noise-rejection of the stethoscope. This was accomplished by decreasing the impedance difference between the instrument and the chest wall and increasing the impedance difference between the stethoscope head and the ambient environment. This reverses the normal stethoscope technology, which typically has a high impedance mismatch between the chest and the stethoscope head (making it difficult for mechanical energy to travel from the surface of the chest into the stethoscope) and a low impedance mismatch between the stethoscope head and the ambient environment (making it very easy for sound to contaminate the acoustic stimulus).

One of the USAARL's contributions resulted from knowledge of the travel of surface waves along the skin. From research on tactile display technologies and associated human factors, it was recognized that acoustic energy (i.e., noise) impinging anywhere on the human body travels along the surface of the skin and can enter the stethoscope head, thereby making auscultation difficult. A patent-pending surround was developed that produced an immediate 5- to 10-dB improvement in an early prototype's noise isolation.

Another breakthrough involved recognizing that the harsh acoustic environment of an Army MedEvac vehicle could not be defeated using traditional acoustic or mechanical technologies. A new approach was selected using ultrasound through the development of an instrument that transmits a 2.3-MHz carrier wave into the body and recovers reflections of that ultrasonic signal. The frequency of the reflected carrier wave is modulated by the Doppler Effect from internal body structures. For example, as the heart beats it physically moves within the cardiac sac. When part of that movement is directed toward the ultrasonic signal, the frequency of the reflected carrier is minutely increased. Conversely, as the bodily tissue moves away from the stethoscope head, the frequency is decreased. The new stethoscope transmits the ultrasonic carrier wave, analyzes the return signal, and creates a signal audible to the listener. Fortunately, since a MedEvac helicopter does not make any sound that would interfere with the 2.3-MHz carrier wave, the ultrasonic signal is totally unaffected by the helicopter noise.

Evaluations have demonstrated that the new AST/USAARL stethoscope is not just noise resistant, but is truly noise immune. Tests of the ultrasonic stethoscope in the USAARL reverberant chamber have demonstrated that cardiac sounds cannot be masked even with background noise levels of 110 dB (A-weighted, or dBA). The ultrasonic technology shows a constant signal-to-noise ratio of approximately 20 dB measured from quiet to 110-dBA broad-band noise. The tests results of the hybrid stethoscope were presented at the 77th Annual Scientific Meeting of the Aerospace Medical Association in May 2006 (3) and at the 4th

Joint meeting of the Acoustical Society of America and the Acoustical Society of Japan (4) (see <http://www.acoustics.org/press/152nd/houtsma.html> for a photo and recorded cardiac sounds). The hybrid instrument may be considered by the National Aeronautics and Space Administration (NASA) as part of the medical equipment required for the proposed lunar base planned in 2024 and the U.S. Air Force by Critical Care Air Transport Teams (CCATT) aboard high-noise, long-range critical care air MedEvac transports.

The development of the noise-immune stethoscope should cause a paradigm shift in members of the medical profession. Prior to the development of this instrument, it was not possible to hear heart or breath sounds in very noisy environments. This fact was so ingrained into medical knowledge that caregivers either did not even attempt to auscultate in noise, or they attempted to use other technologies such as electrocardiograms or pulse oximeters to assess the patient's condition. With a listening instrument using Doppler ultrasound, auscultation is not only possible, but may provide added information with which caregivers can use to treat the sick or injured.

References

1. Rasbury JA, McCulley PA, Bacal K, Paul B, Ownby M. Comparison of two digital stethoscopes with the traditional stethoscope used on International Space Station. *Aviat Space Environ Med* 2004; 75:B104.
2. Russotti JS, Jackman RP, Santoro TP, White DW. Noise reduction stethoscope for United States Navy application. Groton, CT: Naval Submarine Medical Research Laboratory; 2000 July 25. Report No.:1214.
3. Houtsma AJ, Curry IP, Sewell J, Bernhard W. Dual-mode auscultation in high noise level environments. *Aviat Space Environ Med* 2006; 77:294-5.
4. Houtsma AJM, Curry IP, Sewell JM, Bernhard WN. Auscultation in high-noise environments using hybrid electromechanical and ultrasound-Doppler techniques. *J Acoust Soc Am* 2006; 120(5, Pt 2):3361.

The AsMA Science and Technology Committee provides the Watch as a forum to introduce and discuss a variety of topics involving all aspects of civil and military aerospace medicine. Please send your submissions and comments via email to: barry.shender@navy.mil. Watch columns are available at www.asma.org in the AsMA News link under Publications.

AsMA Future Meetings

May 11-15, 2008
Sheraton Hotel
Boston, MA

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

May 9-13, 2010
Sheraton Hotel
Phoenix, AZ

Send information for publication on this page to: **Mark Campbell, M.D.**
 420 N. Collegiate Dr., #300
 Paris, TX 75460
 mcamp@1starnet.com

Space Medicine Association Annual Report

Mark R. Campbell, M.D.

I believe that space exploration, space medicine and the Space Medicine Association are at an important crossroads. On one hand, we have a glorious past history in which many of our members were heavily involved. On the other hand, we have an equally potentially glorious future of which many of our members are an active part of and will continue to be so in the future (despite continued lack of funding and the predicted gloom of some pessimists). This future includes the finishing of the Shuttle program, continued participation in the International Space Station, the Constellation program and return to the Moon (and eventually a Mars Expedition), and commercial spaceflight development.

Our organization needs to emphasize our history and traditions. Experience has shown that if you do not proactively take hold of your history, then someone else will and they may have a different agenda. We are working to improve the archives of the organization and space medicine in general and have formed an Archives Committee to

aggressively pursue this. If any individual members have archives related to the Space Medicine Branch, please notify me so that we can obtain copies for our growing online collection on the web site. We will soon be reaching out to all of our past Presidents and asking them to record the activities of the organization during their service. We are also trying to write a history of the organization since 1957 (Dr. Paul Campbell produced a fascinating early history of the organization from founding in 1951 to 1957 which is available on the web site).

We are continuing to emphasize the future. The development of the web site is an attempt to be able to provide more information and in larger volume to the membership. We need contributions to the web site by the membership. The space medicine bulletin board accessed from the web site allows us to place an unlimited volume of material (photos, video, Powerpoint presentations, and documents) to be available to any member. Please consider making electronic material donations to this web site. You can do so by sending it to me on a CD or e-mailing me at mcamp@1starnet.com. The Space Medicine Association will sponsor and organize six panels (the usual is two) for the annual meeting in Boston in 2008 as well as endorsing several others (usually six to eight).

We will also initiate a series of monthly reports on this page of the journal concerning various aspects of space medicine from our individual members. We also need to continue to be actively seeking new members and encouraging people early in their careers to become interested in space medicine.

We had a very successful Space Medicine Association annual meeting with over 220 present at the luncheon. Tickets were sold out early and so we have requested more room for the annual meeting in Boston. Our speaker was Rich Tumlinson, co-founder of the X-Prize, the Space Frontier Foundation, XTreme Space, Orbital Outfitters, and the Institute of Space Law and Policy. His perceptions on the future of space exploration and the rapidly developing possibilities of commercial spaceflight were found to be very thought provoking and generated enormous discussion. Dr. Clarence Jernigan was the recipient of this year's Hubertus Strughold award. Dr. Jernigan was heavily involved in the Apollo program as a lead flight surgeon and related many fascinating stories of the Apollo 11 mission. Dr. Hirofumi Aoki, who has a Ph.D. in human factors engineering from MIT, received the Young Investigators award after a review of 177 candidate papers which were submitted. His paper described a virtual reality program to prevent spatial disorientation on the International Space Station. At the meeting, we announced the newly elected officers, which were Genie Bopp as

See *SPACE MEDICINE*, p.920.



PAST PRESIDENT'S AWARD--Space Medicine Association President Jon Clark (left) receiving recognition for his outstanding leadership during 2006-2007 by incoming President Mark Campbell.



LUNCHEON SPEAKER--Rich Tumlinson (left), our speaker for the SMA luncheon, gave a very interesting and different perspective of the future potential of commercial space exploration.



WYLE--(Top) George Melton (left), the CEO of Wyle Life Sciences, is receiving recognition for Wyle's generous support. We also recognized (Bottom) Bob Ellis (left) of Wyle Life Sciences for his ongoing support of the SMA over many years.



PRESIDENT'S AWARD--Denise Baisden (left) received a Special Recognition Award by President Jon Clark for her many years of outstanding service as the Space Medicine Association historian.



KELSEY SEYBOLD--Romie Richardson (left) is receiving recognition for Kelsey Seybold's generous support of the SMA.

Send information for publication on this page to: **Cathy DiBiase**
Mail code: **BIO-1**
Kennedy Space Center, FL 32899
email: **Catherine.P.Dibiase@nasa.gov**

AEROSPACE NURSING SOCIETY NEWS

President's Message

It is hard to believe that by the time you read this it will be September. Children will be returning to school and the playful days of summer will be behind us.

I hope that each of you took a moment out from reading your last issue of the AsMA journal to go online and update your personal information on the AsMA website. If not, please do so now.

In my last message, I stated I would update you on what occurred at the annual business meeting. After reading over the minutes it seems like we talked about so much more. The minutes were well written by Nora Taylor and summarize hours of discussion.

Here are some of the things we discussed:

ANS webpage - We have a link to the ANS website on the AsMA homepage with some important information; however, we hope to get a more detailed site up and running.

Bylaws - Obtaining the most current bylaws is in progress and will be presented at our meeting in Boston.

Membership - Recruiting new members has been an ongoing issue. We continue to recruit new members through other organizations and training programs. We hope to

bolster our recruiting effort by updating the ASN informational pamphlet and use it as an additional recruiting tool.

Associate Fellowship - ANS members are encouraged to apply for Associate Fellowship status in AsMA. To apply, you must have been a member of AsMA for at least 5 years. The application and information is available through a link on the AsMA homepage. Although the deadline for applying may have passed, please still consider applying if you meet the criteria. The form is short and easy to complete.

Members news - As part of the ANS website we would like to include member news or stories worth sharing with the ANS community. Any ideas, comments, or other ideas should be forwarded to any of the officers.

The business meeting was very productive and new officers were chosen for various ANS offices and committees. The committee members are as follows:

Education/Training - Stella Bellarts and Janet Sanner

Science Program - Paul Pfennig and Diane Fletcher

Awards - Charles Tupper and Diane Fletcher

Bylaws - Kirk Nailling

Meeting Arrangements - Eileen Hadbavny

History and Archives - Guylene Kreigh-Fleming

Membership - Kirk Nailling

Publicity - Wendy Chapman and Cathy DiBiase

Nominations - Martha Stowe, Kim Barber, Janet Sanner, and Cathy DiBiase

This year is flying by, but until May of 2008 there are some specific things that we need to accomplish. For instance, we must improve on communication among ANS members. We would like to maintain current contact information for all of our ANS members. Each month I plan to send to the members the president's page via email since many members may not be getting their journal due to deployment. We also hope to open a forum for exchange of information.

If you have any ideas, concerns or things you would like to see addressed please let me know. I am in this office to represent each of you, not only at various meetings, but also to build and foster an active ANS organization. My goal is to improve our organization, building upon the rich history and contributions of the past and current members. I cannot reach that goal without each of you.

Cathy DiBiase, RN, BSN
ANS President 2007-2008

P.S. DON'T FORGET TO SUBMIT YOUR ABSTRACTS FOR THE MEETING IN BOSTON! THE DEADLINE IS OCTOBER 31!

SPACE MEDICINE from p. 919.

President-Elect, John Charles as Treasurer, and two new Members-at-large, J. D. Polk and Scott Parazynski. It is noted that Scott is assigned to STS-120, which is scheduled to launch in October to install Node 2 on the International Space Station and he will perform several EVAs. It was announced that the Young Investigators Award will from now on be titled, "The Jeff Myers Young Investigator Award," in honor of the enormous amount of time, donations, and leadership that Jeff has freely given to this effort over the last 15 years. We announced a new lifetime membership category and already have 10 members who have applied for this status. The fee is \$250.00 and you are a lifetime member as long as you maintain membership in AsMA. Our treasurer, Genie Bopp, reported that our finances are in excellent shape due to our corporate support from Wyle Laboratories, Kelsey-Seybold, and Comprehensive Health Services. We also have received donations from Jeff Myers, Jeff Davis, Phil Scarpa, and Mark Campbell. We currently have over \$19,000.00 and have started a dedicated endowment fund for the Young Investigators Award. We also reported that the Executive Committee was unanimous in deciding to limit the recipients of the Hubertus Strughold Award to members of the Space Medicine Association. This has always been a requirement, but has been overlooked in some of the past awards. It was agreed that the Space Medicine Association membership requirement for the Hubertus Strughold Award should be strictly adhered to in the future.

Many thanks to the volunteers who helped with meeting arrangements and t-shirt sales: Kathy Houser, Karen Mathes, Casey Pruet,

Neal Houser, Mary Anne Frey, Jeff Young, Doug Hamilton, Ashot Sargsyan and Mike Chandler. Hope to see you next year in Boston!

MEETINGS CALENDAR 2007

September 14-16, 2007, Montreal, Canada. Aviation Safety, Security, & the Environment: The Way Forward. This conference is jointly run by ICAO and McGill University. For more information, please visit http://www.icao.int/icao/en/atb/atbMcGill_meetings/2007/index.html or contact the Conference Secretary: ICAOMcGill_Symposium@icao.int.

September 16-20, 2007, Vienna, Austria. The 55th International Congress of Aviation and Space Medicine (ICASM). For more information, please visit www.icasm2007.org

September 17-19, 2007, Tampa Convention Center, Tampa, FL. Air Medical Transport Conference. There are also pre-conference training opportunities available. For more information, please visit <http://www.aams.org/Content/NavigationMenu/EducationMeetings/AMTC2007/default.htm>

September 30-October 1, 2007, Baltimore Waterfront Marriot Hotel, Baltimore, MD. Fifth Annual Human Performance in Extreme Environments (HPEE) Meeting. For more information, please visit http://www.hpee.org/_mgx-root/page_10783.html.

October 29-31, 2007, Grand Sierra Resort & Casino Hotel, Reno, NV. SAFE Association 45th Annual Symposium. For more info, call (541) 895-3012, Fax (541) 895-3014, e-mail

safe@peak.org, or visit www.safeassociation.com or www.safeassociation.org.

October 10-13, 2007, Marriott San Diego Mission Valley, San Diego, CA. Civil Aviation Medical Association Annual Scientific Meeting. This meeting is certified as an AME seminar by the FAA. For more information, please contact Jim Harris at jimlharris@aol.com or call 405-840-0199.

October 11-12, 2007, NTSB Training Center, Ashburn, VA. Accident Investigation Orientation for Aviation Professionals. For more information, please visit http://www.nts.gov/Academy/CourseInfo/AS301_2007.htm.

October 15-19, 2007, NTSB Training Center, Ashburn, VA. Survival Factors in Aviation Accidents. For more information, please visit http://www.nts.gov/Academy/CourseInfo/AS302_2007.htm.

November 1-2, 2007, Holiday Inn Regents Park, London, UK. Second Annual Aviation Health Conference. For more information, visit www.quaynote.com. For sponsorship or speaking opportunities, contact lorna@quaynote.com or phone 44-20-8531-6464.

January 30-February 1, 2008, Hyatt Regency, Long Beach, CA. Medicine Meets Virtual Reality 16 (MMVR16) Call for Papers. For more information, please visit www.nextmed.com/mmvr_virtual_reality.html or e-mail MMVR16@NextMed.com.

Send information for publication on this page to: **Jennie Bendrick**
8825 Redwood Blvd
California City, CA 93505
760-373-810; butljenn@aol.com

WING NEWS & NOTES

Laissez les bons temps rouler in New Orleans

Thanks to Conoly and the Arrangements Committee that is exactly what the Wing members did! All of us who were able to attend the meeting in New Orleans can testify that this was another memorable and unforgettable week.

Following Wing tradition, our meeting began with the Reception on Monday. It was great welcoming twenty new members and seven "rejoining" members. They were quickly put to work distributing the gifts from "our home country/city."

We had the honor of a visit from Dr. Richard Jennings, AsMA President, at the Reception. Wing members appreciated Dr. Jennings taking time from his busy schedule and his kind words of support for our group.

On Tuesday, we had a full and exciting day beginning with a fascinating, history filled cooking class. Chef Michael De Vidts of The New Orleans School of Cooking did a superb job showing us how to prepare some of the wonderful "Cajun" and "Creole" dishes: Corn and Crabmeat Bisque, Chicken Jambalaya, Bananas Foster, and Pralines, for which New Orleans is famous. Watching the preparation was great, but feasting on the finished product was the most enjoyable part of the class. Following lunch, we enjoyed shopping at the Louisiana General Store at the New Orleans School of Cooking.

Continuing our tour, we traveled to Mardi Gras World where we were given a tour of the "shop." We saw the many floats, beads, masks, and everything that goes into the Mardi Gras celebration. We all learned that there is so much more to Mardi Gras than a rowdy crowd and throwing of beads to them.

Wednesday's Wing Luncheon at Restaurant August was a "HIGH" for the Group. The tables were beautifully decorated with the purple, green, and gold Carnival accessories. The food was fit for a king and the fellowship enjoyed by all the ladies was terrific. We were all able to enjoy some time to relax and visit with both old and new members before the installation of the new Board and voting on the by-law changes.

On Thursday, the Wing enjoyed a "journey back in time." We were fortunate to have a very knowledgeable tour guide who explained



OAK ALLEY--New member Catherine Portegijs, Peggy Brower, and Josie Borchardt at Oak Alley.

how people lived and worked in the old days. One could feel the warmth of a typical Louisiana day, see the 300-year-old oak trees and Mississippi River boat. What an experience...and then to top it all off, the delicious luncheon buffet!

We once again had the pleasure of the return of Deb Anzalone and her daughter, Tracy. It was wonderful to see the progress Tracy has made and Deb again expressed her appreciation for the Wing's continued support and friendship.

Our meeting was filled with wonderful sights, experiences, good food and unforgettable activities. But the most enjoyable part of the AsMA congress is the friendship shared by all the members. Although most of us do not see each other but once a year, we all seem to share a common feeling that we are a Family. All of this would not have been possible without the hard work and devotion to our Wing by Conoly Barker and her outstanding committees. Our thanks to all of you!

Discovering a Legacy

By Peggy Trumbo

She lived for 96 years, until May 30, 2006, right after the Orlando AsMA meeting. Now, my sister and I spend time together at our mother's house in the Shenandoah Valley, taking inventory of 150 years worth of memorabilia belonging to our mother, and her father before her, and his parents before him. Some things go back into the 1700s, other things into biblical times - a family of missionaries, historians, and genealogists. And they saved everything, which used to drive me crazy. Now I am grateful.

All of us have lost someone we love - a parent, a spouse, a child, a friend. The intimacy of suddenly being responsible for their belongings brings such a variety of emotions.



LUNCHEON--Centerpiece at restaurant August.

My sister and I have laughed and cried, whooped and tskkk-ed as we read unexpected love letters between our parents, find old lists of things to do, and notes written on tiny little pieces of paper about a long lost great-great uncle who fought in the War of 1812 or a distant cousin who was a POW in New York harbor during the American Revolution. (He was promoted to General.) We make notes on every artifact and read every piece of paper to decide what to keep, what to archive in the local library, what to send to museums, what to hand down to our children, what to go to auction.

And in the midst of it all, my sister and I realize we are learning who we are, what we're "made of," why so much was expected of us, and why relationships are important, whether the relationship is between parent and child, second cousins three times removed, business colleagues, or neighbors across the fence. These folks in times gone by took care of each other and each others' children, kin or not. They cherished their friendships and wrote daily notes in diaries to remember them.

I see more clearly now the value of relationships of family and friends, the benefits of getting to know someone well, what they do for fun, what is important to them. And I can see the absolute necessity of telling friends and family what they mean to you.

I have purchased a diary for myself now, for remembering beautiful places and special friends. Some of you will be in it. Someday my children will find it. And I am grateful.

VIENNA Invites You! International Congress of Aviation and Space Medicine

The 55th Annual International Congress of Aviation and Space Medicine will be held in Vienna on September 16-20, 2007. A trip to Vienna would not be complete without experiencing the MANY activities available. Vienna is a Baroque city where visitors can explore churches filled with statues of golden saints and pink cheeked cherubs, wander through treasure packed museums, or spend an afternoon in one of those multitudinous meccas of mocha inevitable cafes. There are Opera Houses, Spanische Reitschule (Spanish Riding Schools), Vienna Boys Choir, Vienna Belvedere Palace, Naschmarkt (Fruit and Vegetable Market), Schmettlerling Haus (Butterfly House), and the Vienna Imperial Palace for a start. One could spend months in Vienna and not see all there is to enjoy.

For more information on ICASM and Vienna go to <http://www.icasm2007.org/>

Join the Wing!

The Wing of the Aerospace Medical Association was formed in 1952. Dues are \$20 per year. For more 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: **News of Members**
Aerospace Medical Association
320 S. Henry Street
Alexandria, VA 22314-3579
pday@asma.org

In Memoriam: Alexander Samel, Ph.D.

Dr. Alexander Samel passed away in May after a short illness. At the time of his passing, he was Head of the Division of Flight



Physiology at the German Aerospace Center (DLR) Institute of Aerospace Medicine, in Cologne, Germany. He was a current member of the Editorial Board for *Aviation, Space, and Environmental Medicine*. We have lost a great scientist, researcher,

and friend to *Aerospace Medicine* and our journal.

A native of Kiel, Germany, Dr. Samel received a diploma in physics in 1976 and graduated from the high-energy physics program in 1979 at the Physical Institute of the University in Bonn, Germany. He joined the DLR Institute of Aerospace Medicine, Department of Medicine, in Cologne, where he worked in the field of aerospace human factors. In 1989, he became a senior scientist at NASA Ames Research Center in Moffett Field, CA, working in the Aerospace Human Factors Research Division on countermeasures for shift work in space. In 1994, he returned to Germany to become the Chief of the Flight Physiology Branch, establishing a research program for operational aspects of

workload, behavior, and fatigue in ultra-long-haul operations and in medical emergency helicopter pilots. In 1997, he was appointed Acting Chief of the Division of Flight Physiology at the DLR Institute of Aerospace Medicine.

He had been active in studies of stress, fatigue, and circadian rhythms in aircrews. He had personally undertaken many flights in airline aircraft while recording physiological and subjective data from aircrew members. This data was made available to airlines, pilots, and national and international aviation authorities for application in flight operations and in rule-making activities. He also made significant contributions to the NASA Technical Memorandum on "Principles and Guidelines for Duty and Rest Scheduling in Commercial Aviation."

Dr. Samel was a member of the German Society of Aviation and Space Medicine, the Society for Research on Biological Rhythms, the European Sleep Research Society, and the German Sleep Society. He was a corresponding member of the International Academy of Astronautics and was appointed to the Joint Aviation Authorities Project Advisory Group for Human Factors and to the European Transport Safety Council Air Safety Working Party. He was a member and Fellow of the Aerospace Medical Association and the 1998 recipient of AsMA's Boothby-Edwards Award. He was the author or co-author of more than 60 technical and scientific papers in the field of high-energy physics, aviation and space medicine, and human factors.

New Members

Alexander, David J., LTC, USAF, MC, League City, TX
 Bruntmyer, Hans C., Lt.Col., USAF, MC, Jamestown, NC
 Elam, Reid P., Ph.D., Kapolei, HI
 Gassen, Gavin M., LCDR, MC, USN, Carlsbad, CA
 Gaydos, Steven J., MAJ, MC, USA, Galveston, TX
 Ma, Kai-Wood, Lt.Col., USAF, MC, San Antonio, TX
 Mount, Warren T., D.Sc., Ph.D., Miami Shores, FL
 Papworth, Gregory, M.D., Wagga Wagga, Australia
 Powell-Dunford, Nicole C., MAJ, MC, USA, League City, TX
 Rogers, Mark S., M.B., Ch.B., FRACGP, Glenalta, Australia
 Sharp, Lindsey S., M.D., Decatur, GA
 Thomas, Anthony J., SSgt., USAF, Fairview Heights, IL

Nominations for 2008 Awards

December 15 is the deadline for receiving nominations for awards to be presented at the 2008 Annual Scientific Meeting in Boston, MA. Nominations can be made by any member of AsMA. The award nomination form is available on the AsMA website. You may either submit the nomination directly from the website or you may download the nomination form into your computer for e-mailing as a Word document attachment. Nomination forms sent via e-mail should be addressed to the Awards Committee Chair, Dwight Holland at Dwightholl@aol.com; and Ms Gisselle Vargas at AsMA Headquarters (gvargas@asma.org). If e-mail is not available, you can send a hard copy of the form via normal mail to: Dwight Holland
 4874 Glenbrooke Dr.
 Roanoke, VA 24081
 Phone: (540)761-1576
 AsMA FAX: (703)739-9652.

Any auxiliary biographical material in electronic or hard copy attachments **must be limited to 3 typed pages** and will be retained in Association files.

Nominations received by Dec. 15 will be considered for awards to be presented at the next annual meeting. Unsuccessful nominations will be retained in the active file through three award cycles.

To view a list of past recipients go to the AsMA website: www.asma.org/pdf/awrdwin.pdf

AsMA Resolutions/Position Papers/Letters

Subject	Status
1. NPRM on Interval for Flight Physical Examinations	Completed. Forwarded to FAA.
2. Policy on Countermeasures and Medical Care Moon/Mars Mission	In progress. Draft by November 2007.
3. Policy on Fatigue Countermeasures	In progress. Draft by November 2007.
4. Policy on UAV Medical Standards	Completed.
5. Policy Statement on Optimal Cabin Pressure	Completed.
6. Policy on Go-No-Go pills	In progress. Draft by November 2007.
7. Policy on Biohazard Decontamination	Completed. Forwarded to IATA & ATA.
8. Expert Witness Policy Statement	Completed. Published in Journal.
9. Letter Sen. Harkins for funding aerospace medicine residencies.	Completed.
10. Resolution 07-01 RPA Operators	Approved May Business Meeting. To be sent to interested agencies.
11. Resolution 07-02 Crash Injury Data	Approved May Business Meeting. To be sent to interested agencies.
12. Policy Paper Cabin Pressure	In progress.
13. Policy Paper on Periodicity	In progress.

INDEX TO ADVERTISERS

Aerospace Medical Association
 Corporate Members914
 DVD for Sale917
 Information for Authors . .Cover III
 Membership Applicationii
 ETCCover IV