President's Page

Friends, Colleagues,

I've often spoken to you about how critical it is for our more experienced members to bring onboard and mentor our newest members (see last month's President's Page on "Operation Outreach"). I return to this theme again here, because I would like to ask you to assist some of our newer members, to counsel them to contribute abstracts for the upcoming meeting. Indeed, we are now well into the Fall and with that, yet another month closer to our meeting in Los Angeles this coming May.

Our annual scientific meeting is the focal point of our organization's aeromedical year. It is here that we not only share the wealth of knowledge from the plethora of specialties falling under the aerospace medicine umbrella, but this is often the only opportunity that many of you may have to meet with friends and colleagues from around the globe. Our annual meetings help foster the exchange of ideas, provide a venue in which members of affiliate and constituent societies can gather, socialize, and conduct formal meetings. It is also the opportunity for our newer members and prospective members to learn more about AsMA, to see how the organization functions, to meet many of their colleagues and in general, to become involved in the plethora of activities and meetings offered by the association. It is especially a wonderful opportunity for zealous new members to volunteer their services to help AsMA grow and flourish.

I therefore request that you contact some of your colleagues who may be new to AsMA or who may be contemplating becoming members. Ask them if they know of our meeting in May and, if so, if they plan to attend. If the answers to these questions are 'yes', then ask them if they intend to present a paper, poster, or participate as a member of a panel session. If the answer is again 'yes' or even



Andrew H. Bellenkes, Ph.D.

'well, I'm not certain...' then you might consider offering your good counsel as an experienced presenter to guide our first-time presenters through the process. I am certain that they will very much appreciate this personalized approach to mentorship. Keep in mind, however, that there remains precious little time to do this for the 2009 meeting; indeed, this process should already be well underway.

In this regard, you may have already received your notice with the last AsMA "Blue Journal" indicating that abstracts for the May 2009 meeting in Los Angeles are due no later than the end of this month. The AsMA on-line abstract submission pages have been up and running for some time. If you have not already sent in an abstract, then please consider doing so now. All abstracts must be submitted via the electronic submission system linked to the association's web site. Go to www.asma.org and click on the link to the abstract submission site. Please note that abstracts are due no later than 31 October 2008. Authors with questions regarding the abstract submission process should contact AsMA directly at (703) 739-2240, x101 (Ms. Pam Day); or email pday@asma.org.

Association News

U.S. Transportation Secretary Announces FAA Grant to the X PRIZE Foundation

WASHINGTON, DC--(Marketwire -released July 10, 2008) - U.S. Secretary of Transportation Mary E. Peters announced that the FAA has selected the X PRIZE Foundation to develop a strategy to create monetary incentives for developing renewable aviation fuels and technologies to stem the effect of pollutants from air travel.

The race to refuel American aviation is on and our hope is that the X PRIZE will jumpstart investment and spur innovation," said Secretary Peters. "It will be a competition that everyone wins, because a breakthrough in alternative jet fuels is a potential game-changer that could bring lower airline fuel costs, greater U.S. energy independence, and cleaner air." "Clean fuels and technologies are critical to maintaining our productivity as a society and we are thrilled to receive this funding to explore options for alternative aviation fuels," said Dr. Peter H. Diamandis, Chairman and CEO of the X PRIZE Foundation. "In working with this grant, the X PRIZE Foundation will utilize its comprehensive capabilities in the areas of energy and the environment, including clean fuels, renewable power, efficient homes and buildings and environmental pro-

The Ansari X PRIZE was awarded in 2004 after generating a 10-fold investment in research that fostered innovation and creativity in private-sector human suborbital space flight. Since that time, three additional X PRIZEs have been launched in the areas of genomics, lunar exploration, and automotive transportation.

Over the next 11 months, the X PRIZE Foundation will consult with industry experts to develop a strategy to bring together the best minds in the aviation and science communities to solve the technical challenges and speed up the development and implementation of costeffective renewable aviation fuels and technologies that have an environmental life-cycle benefit and do not present potentially negative side effects, such as the displacement of food production or the inducement of land use changes that lead to additional greenhouse gas emissions. The X PRIZE Foundation will work with various organizations, including the private-sector and academic members of the FAA's Commercial Aviation Alternative Fuel Initiative (CAAFI). In addition, the Foundation will define an implementation strategy that could lead to advances in environmentally friendly alternative aviation fuels and technologies that will ultimately accelerate their introduction at a faster pace than the market would normally provide. The strategy will facilitate discussions among industry and the government to identify prize sponsors and initiate the prize competition. For more information, please visit www.xprize.org. Contact: Sarah Evans (310).582.5903; prcontact@xprize.org.

Environmental Health Standards Published by WHO

The World Health Organization has recently published "Essential Environmental Health Standards in Health Care," edited by

conference flyer: www.nano.org.uk/ nanomednet/images/stories/flyers/ ion_conference_flyer.pdf.

January 11-15, 2009. D. Eugene Strandness Jr. Symposium: Diagnostic and Therapeutic Approaches to Vascular Disease; Wailea, Maui, HI. Info: www.strandness-symposium.com; strandness@administrare.com; 978-744-5005

o March 24-26, 2009; 2009 International Conference on Fatigue Management in Transportation Operations: A Framework for Progress; Boston, MA. Hosted by the U.S. Department of Transportation's Human Factors Coordinating Committee under its Operator Fatigue Management Program. Info: http://hfcc.dot.gov/ofm/

April 26-29, 2009; American Occupational Health Conference; Manchester Grand Hyatt, San Diego, CA. For more information: www.acoem.org; e-mail: education@acoem.org.

June 25-27, 2009; Undersea & Hyperbaric Medical Society Annual Scientific Meeting; Crowne Plaza Los Cabos Grand Faro Beach Resort, Mexico. Info: Lisa Tidd/Stacy Rupert uhms@uhms.org; www.uhms.org

John Adams, Jamie Bertram and Yves Chartier.

With health-care associated infections affecting between 5 and 30% of patients in medium- to low-resource countries, the burden of disease is extremely high. Ensuring safe environmental health conditions in health care can reduce transmission of infections.

The document provides guidance for health care providers, health promoters, clinical and nursing staff, health managers and planners, arcitects, urban planners, water and sanitation staff in medium and low resource countries. Available from WHO Press: www.who.int/bookorders

Aerospace Medical Association Seeks Executive Director

The Aerospace Medical Association (AsMA) is seeking applicants for the position of Executive Director. The Executive Director serves as the chief operating officer responsible for all management, administration and professional activities of the Association. Applicants should possess a doctoral degree and be familiar with the AsMA. Major responsibilities include membership services, planning and conducting an annual scientific meeting, publishing a scientific journal, and conducting liaison with related national and international organizations. Salary will be commensurate with these responsibilities and the experience of the applicant. Applications should include a 1- to 2-page narrative describing interest, professional qualifications, and vision for the Association. Also include a professional resume, salary history, and salary requirements. A position description may be obtained by calling (301) 469-5461. Mail applications to: Robert R. McMeekin, M.D, Chair, Search Committee, 7435 Arrowood Road, Bethesda, MD 20817-2822.

NEW IMPROVED WEB FEATURE: POLICY COMPENDIUM

Our archive of position papers and policies dates back to 1992. Now you can now view and print each paper from the table of contents. Just go to our Home Page (www.asma.org) and click "About the AsMA". Then scroll down to "Downloadable Materials". Select "Policy Compendium."

MEETINGS CALENDAR 2008-2009

October 15-18, 2008; XXV International Meeting of Aerospace Medicine; Zacatecas, Zac., Mexico. Sponsored by the Mexican Association of Aviation Medicine and the Iberoamerican Association of Aerospace Medicine. For more information, please visit www.amma.org.mx or contact Luis A. Amezcua G., M.D., Chairman.

October 27-29, 2008; SAFE Association 2008 Annual Symposium; Reno, NV. For more information, please phone 541-895-3012, e-mail safe@peak.org, or visit safeassociation.com or safeassociation.org.

November 20-22, 2008; 2nd International Conference on Air Travel and Health; Dead Sea, Israel. Info: www.palexconventional.co.il/ ath2008; ath2008@palex.co.il.

November 26-27, 2008; 21st Century Medicine: Breakthroughs and Challenges; Royal Institute of British Architects, London, UK. For more information or to register, please see the Institute of Nanotechnology's

This Month in Aerospace **Medicine History--**October 2008

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

Seventy-five Years Ago

Life of an airline stewardess (written by a stewardess on United Air Lines): "Aviation is the newest large industry, and it is therefore proper that the newest profession for women should concern flying. Three years ago United Air Lines, which operates the Coast-to-Coast airway from New York to California and other routes in a nation-wide system, conceived the idea of placing stewardesses aboard its large passenger-mail-express planes flying between Chicago and the Pacific Coast, and so in June, 1930, the first air stewardesses took up their jobs. United employed eight young women and placed them on the big air liners. Today United Air Lines employs nearly one hundred stewardesses, who are regular third members of the crews of every multi-motored plane in operation on United's routes.

"From the standpoint of the girls themselves, the work is greatly interesting, in fact, even fascinating at times. It is at the same time rather difficult and requires a display of initiative and effort on the part of the girls, all of whom are particularly anxious to keep their jobs, because the waiting lists for these positions are certainly long ones...

For one thing, a stewardess is a sort of aerial conductress, because at the start of the journey she must assign passengers to their proper seats and collect their tickets, checking over the destinations and making out a manifest, so that passengers will reach properly the

points for which they are bound. "The stewardess also provides reading and writing materials, serves luncheon aloft, answers questions concerning interesting points along the airway and details about the airplane itself. She sees that night flying passengers are comfortably arranged in their reclining chairs, and in other ways makes the passengers more comfortable.

"The stewardess is able rather well to classify, so to speak, the passengers which board her plane. If a person is making his first flight, the stewardess generally is aware of it, and quietly and unobtrusively proceeds to make him completely at his ease. By eliminating his natural preliminary nervousness, the stewardess insures that he will get the fullest possible enjoyment out of his introduction to air transportation.

"Incidentally, conversation represents one of the more important of the stewardess' duties. Many people making a fairly long trip by airplane are inclined to tire of reading or watching the scenery and desire to talk a little. Believe me, the airplane stewardess has to keep extremely well posted on topics of current interest, for she is liable to find herself conversing with one passenger about the relative chances of the New York Yankees and the Washington Senators in the American League baseball race, and a few moments later she may be talking with another passenger about the probable effects of the new Industrial Act sponsored by the Administration. Versatility of conversation is indeed an important requisite of the position of stewardess.

"In this connection, requirements for the job are several. First-and this is the requirement which eliminates a great many

applicants-the stewardess must be a graduate nurse. This prerequisite is imposed by United Air Lines because it has found from experience that an institutionally trained girl knows the meaning of discipline, and is certain to have a degree of responsibility developed in her by reason of her nursing training.

"In the matter of physical requirements, the girl must be fairly small because the payload of an airplane is an important consideration, and the smaller the stewardess, the more weight is available for mail and express United Air Lines imposes a maximum weight limit of 130 pounds, and the stewardesses average around five feet three inches in height. In age the stewardesses range from twentyone to twenty-seven years, as a rule.

"Finally, the stewardess must possess a pleasing personality and the ability to meet and deal with the public" (1).

Fifty Years Ago

Vertebral fractures in aircraft mishaps (Directorate of Flight Safety Research, Office of the Inspector General, USAF, Norton AFB, CA): "Although aircraft accidents are characterized by a high percentage of either fatally injured or entirely uninjured occupants, there are a significant number of major non-fatal injuries. In 1955 through 1956, 533 or 7 per cent of those in accidents of U.S. Air Force aircraft were in the latter category... This is a significant problem in medical management.

'În a two-year period studied, vertebral fractures were the most frequent type of major non-fatal injury. One-hundred and fifty-seven such injuries were reported, accounting for 29 per cent of all major (non-fatal) injuries and for 44 per cent of such injuries in jet aircraft accidents... Furthermore, the vertebral fracture rate among survivors has increased steadily since 1950... This trend is associated with the Air Force progressive transition to jet aircraft which occurred during the same period. The additional observation that three out of four vertebral fracture cases were incurred in jet aircraft accidents further demonstrates the importance of this factor.

'Although previous studies have shown that back injuries occur frequently during ejection escapes from jet aircraft, the majority (127 in the present study) received injuries in nondisintegrating ground impact accidents Another twenty-two were associated with ejection. The remaining eight cases resulted from conventional bailouts.

"Vertebral fractures incurred in aircraft accidents were an infrequent cause of death during the period studied. Only six fatalities, all associated with transection of the cervical cord, were reported. Examination of the individual accidents indicates that the degree of injury in aircraft accidents is directly related to the forces experienced. If these forces are great enough to cause death, the usual result is multiple, extreme injuries. Death from any single injury is relatively uncommon...

'Several proposals have been made to reduce the incidence of vertebral fractures. The one receiving unanimous endorsement is that which stresses the need for improved methods of upper torso restraint. Chest straps and the inverted 'V' leg straps may be used. Improved seat design should consider the normal spinal curve and be fashioned to prevent hyperflexion. Seats should be stressed and dynamically tested to insure retention. Parachute support should be considered when the back type parachute is used and, finally, some method of shock absorption, possibly a constant yield seat cushion or perhaps hydraulic suspension of the seat, should be studied further" (3).

Twenty-five Years Ago

Developing a preventive health assessment (Environmental Medicine Department, Naval Health Research Center, San Diego, CA): "This study compares the morbidity (hospitalization) rates by age of male Navy aviators (n=22,417) with rates for three male control populations: nonpilot aircrew officers (n = 9,483), unrestricted line officers (n = 55,593), and staff officers (n = 46,565). Aircrew members and pilots have the highest hospitalization rates of the four officer groups for both total admissions and for most of the 16 major diagnostic categories. Younger pilots have the highest rates for the disorders of tooth development and eruption and accidental injuries (primarily sports-related) while one of the highest rates for older pilots is observed for circulatory diseases. Compared to civilian samples, the four officer populations are considerably healthier..

"The incidence of many disorders would seem to be readily preventable or, certainly, reducible. Improvements in physical training programs and warm-up exercises would lead to a lower rate of sports-related hospitalizations. Changes in an individual's lifestyle and personal habits as well as adverse occupational influences would prove beneficial in lowering hospitalization rates for stress-related disorders and chronic disease.

'As a first step in this reduction of morbidity, however, a health appraisal procedure should be developed to identify those individuals at risk, not only for these conditions but also for all other stress-related diseases. At the time of the annual physical examination, flight surgeons could institute an assessment, similar to the USAF Coronary Artery Risk Evaluation (CARE) Package which, after obtaining measures of an individual's fasting blood sugars, blood pressure, weight, total cholesterol, HDL cholesterol, and amount of smoking, can be used to determine the individual's relative risk for CHD by sex and age. On the basis of these objective results, the medical practitioner could decide whether or not the individual qualified for enrollment in an intervention program...
"At present, the Navy is developing sev-

eral programs, such as an expanded medical screening procedure and a lifestyle enhancement program, which should be operational as early as 1983" (2).

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Keeping You Informed Of The Latest Advances In Science And Technology

This month's edition of the Watch is a bit different from our usual offerings. Dr. Soper provides some necessary background for individuals asked to provide technical information as expert testimony.

An Examination of the "CSI Effect"—Relevance for Expert Witnesses in the Aerospace Community

John Soper, Ph.D., Toxicology Consultant, Oklahoma City, OK.

The TV show "CSI" (Crime Scene Investigation) is allegedly the most popular television program in the world (5). The unique way in which CSI, and similar programs, deal with the investigation of forensic evidence is called the "CSI Effect." One side suggests that this increases the prosecutor's burden by creating an expectation that scientific evidence will always be presented. The other view is that the defense must overcome the perception that scientific evidence is infallible (1). While there are many media reports of a "CSI Effect" (2), there are only a small number of journal studies investigating this phenomenon.

This column considers two points: 1) many readers of this article have either testified as an "Expert" or can expect to; and, 2) if this effect is real, you must consider it. We shall examine two published reports, examine attorney viewpoints, and investigate attempts by scientific and legal societies to provide a better understanding of the scientific evidence submitted in trials. Finally, we shall provide references for some of the actual "science" used in the scripts for CSI.

One of the first studies was done by Andrew P. Thomas, chief prosecutor for Maricopa County, AZ (fourth most populous county in the U.S.) (7). Thomas heads a staff of 300 prosecutors, with about 40,000 felony trials each year. In June 2005, 102 prosecutors were surveyed for their opinions regarding a "CSI Effect" in their cases. Of these 64% claimed that they "usually talked" to jurors after a trial, and 38% felt that they had at least one case resulting in an acquittal, or a hung jury, because of the lack of corroborating forensic evidence.

Prosecutors stated that a strong circumstantial case is no longer sufficient, because jurors demand "hard" forensic evidence (e.g., DNA evidence, vs. handwriting analysis [soft]). In about 40% of acquittal cases, jurors have raised post-trial issues about items such as "mitochondrial DNA," "trace evidence,"

etc., even though these terms were never brought up in court. Therefore, prosecutors allege jurors are less likely to convict in a case where scientific evidence is not presented. While Thomas acknowledges that "verdicts have not yet noticeably changed from guilty to not guilty," he has been much more pro-active in explaining why certain forensic evidence may not be present in a particular case.

Taking the opposing perspective, Professor Thomas Tyler, lecturing in the NYU Psychology Department, as well as its Law School, argues that jurors are more likely to convict defendants, because they have a view of science as... [an] infallible objective method that is always right (8). In addition, he asserts that "CSI and similar shows make jurors rely too heavily on scientific finding, and are unwilling to accept that those findings can be compromised by human or technical error."

The general message of CSI is that scientific methods, and related evidence, are legitimate and reliable. In 1998 the General Social Survey, conducted by the National Opinion Research Center, found that 40% of Americans expressed at least "a great deal of confidence" in the scientific community, while only 19% expressed a similar trust in the courts and the legal system. In a recent study of 300 federal trials, from 2000-2001, the opinions of judges were compared with verdicts. The study reported an "overwhelming number of judges were in agreement with the jurors." Professor Tyler notes, however, that there has been no systematic tracking of these data, so we can't determine if there is any shift in these relative opinions.

The Honorable Donald Shelton has conducted the most extensive investigation of the CSI effect (5). In a representative illustration of the issue, Judge Shelton once heard a juror complain that the prosecution hadn't done a thorough job, because "they didn't even dust the lawn for fingerprints."

Between June-August 2006, questionnaires were completed by 1,027 randomly summoned jurors in Judge Shelton's court, located in Washtenaw County, MI. Jurors were asked a number of questions, including demographic data, TV viewing habits, and likely reactions to 13 crime scenarios. Optimally, when asked to choose a pre-trial verdict, jurors should state "I'm not sure what I would do," regardless of the existence of scientific evidence. In fact, in all cases, roughly half of the jurors did just that. Fortysix percent of all respondents expected to see some kind of scientific evidence in every criminal case. The expectations of CSI watchers were consistently higher than those of non-watchers, for both scientific and nonscientific evidence. This did not, however, translate into a demand for such information for a guilty verdict.

In June 25, 2007, a focus group consisting of a number of legal and scientific experts was assembled in Washington to examine the relationship between law and science (3). In one ongoing effort, it was noted that the American Association for the Advancement of Science (AAAS) has a joint standing committee with the Science and Technology Law Section of the American Bar Association (ABA) called the National Conference of Lawyers and Scientists.

Finally, while the issue of a "CSI Effect" is still open, when you are called as an expert,

you must always inform your attorney regarding the "cutting edge" of current legally admissible technology. You must inform him of how such technology might validly support the types of data that either side possesses. A very complete source of actual script settings used in CSI episodes, and their relation to actual trial evidence, is found in "The CSI Effect" (4). You should also be familiar with other issues regarding the science used in your testimony. An excellent source of data for experts may be found at web sites maintained by the National Clearinghouse for Science, Technology and the Law (2), and by the Department of Justice (6).

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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 two AsMA News links under Journal.

AsMA Future Meetings

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

> May 9-13, 2010 Sheraton Hotel Phoenix, AZ

May 8-12, 2011 Egan Convention Center Anchorage, AK

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 NEWS

Space Medicine at NASA Headquarters (Office of the Chief Health and Medical Officer)

by Rich Williams, M.D.

The Office of the Chief Health and Medical Officer (OCHMO) at NASA Headquarters in Washington, DC, is responsible for the health of the entire NASA workforce. The Office meets this responsibility by establishing policy and exercising continuous oversight of the NASA health care system, which consists of both space medicine and occupational health practice. NASA is developing the next generation of space vehicles to support future space exploration, is still actively operating the Space Shuttle, and is extensively involved in constructing the International Space Station (ISS). The health and productivity of the entire NASA workforce is crucial to the success of all of these missions.

In the area of space medicine, OCHMO sets policy that guides the medical and health care support of astronauts before, during, and after space missions. This includes oversight of the policies guiding medical practice, the development of medical and health-related technical standards, and implementing applications from NASA's biomedical research efforts as they are developed. OCHMO is also instrumental in maintaining collaborations and coordination with NASA's partners on the ISS through a set of multi-lateral medical management boards.

In response to recommendations from the Institute of Medicine, OCHMO has been working in concert with the medical management authorities at the Johnson Space Center (JSC) and other NASA Centers to integrate an occupational health approach to the practice of space medicine. Central to this approach is an integrated standards-todeliverables process that is guided by principles of risk evaluation and management based upon the analysis of currently available medical evidence. This approach enables better prioritization and targeting of NASA's human research efforts, more fully informs ongoing spacecraft development activities, and results in better health care for its spaceflight crewmembers.

Among recent activities is the development of policy documents to guide the formulation of health requirements to protect human crews engaged in long-duration spaceflight missions. This addresses the levels of care that are applicable to different future mission architectures. It establishes permissible exposure limits (PEL), fitness-for-duty (FFD) criteria, and permissible outcome limits (POL) for several risk areas that are involved in long-duration human spaceflight. These standards are designed to reduce the risk of illness and injury during spaceflight and maximize human health in the extreme environments that will be encountered in future space exploration. A standards document addressing all aspects of human habitability and human factors is also under development, in concert with the NASA Offices of the Chief Engineer and Safety and Mission Assurance. This standards document will be used to facilitate the integration of hardware and mission architecture into the developing systems engineering designs. Through this effort, the OCHMO is facilitating cooperation between the medical, life sciences, and engineering cultures of NASA to ensure optimal human health and productivity through all phases of current and future human spaceflight programs. NASA medical authorities have also updated the NASA Crewmember Medical Standards—Selection and Periodic Certification, which remain fundamental in maintaining crew health and career longevity. The NASA standards and policy setting efforts have been substantially assisted by work at the George Mason University School of Public Policy. At the University, workshops have been conducted on the ethics of medical care prioritization in resource-constrained environments, on aerospace medicine policy formulation, and on the development of a scientific evidence base to support the practice of space medicine.

Actual medical practice is implemented at NASA Centers. The JSC flight surgeons and medical operations personnel are responsible for the astronaut medical care provision, which is based upon the best currently available evidence. The data for an evidence-based space medical practice is gathered from spaceflight experience and analogue environments, which include Antarctic outposts, undersea habitats, isolation chambers, bed rest studies, parabolic atmospheric flights, drop tower experiments, animal research investigations, and research at the cellular level. Aerospace medicine training is supported through aerospace medicine residency programs at the University of Texas Medical Branch (UTMB) and Wright State University (WSU).

"Technical authorities" in engineering, safety, and medical disciplines were established several years ago at NASA in response to recommendations made by the Columbia Accident Investigation Board. Technical authorities are intended to balance programmatic decision-making authority, which is often constrained by costs and schedule pressures. Health and medical technical authority has been integrated into space vehicle development and operations. This promises better integration of the human system, enhanced crew health protection, and increased mission success. The JSC, which has primary responsibility for all human spaceflight activities, was the first Center to have a Chief Medical Officer (CMO) under the auspices of the NASA Chief Health and Medical Officer as a function of this technical authority. Chief Medical Officers at Kennedy Space Center (KSC), Ames Research Center (ARC), and

Dryden Flight Research Center (DFRC) are currently being appointed using this NASA Headquarters/OCHMO to JSC/CMO organization as a prototype. NASA health and medical authorities are working with their engineering and safety technical authority counterparts to better integrate guidance for NASA programs and projects.

OCHMO also has responsibility for the oversight and implementation of all of the NASA activities associated with its occupational health program and is responsible for assuring that NASA is in compliance with all of the regulations and statutes that guide the use of animal and human subjects in its many research programs. The Occupational Health Program at NASA has enjoyed outstanding success in supporting the health and safety of all of the NASA employees. This program has been satisfying the regulatory and legal requirements of the Occupational Safety and Health Administration and other agencies in exemplary fashion for almost 60 years. Along with the Office of Safety and Mission Assurance, OCHMO has surpassed all established Safety, Health, and Return-to-Employment (SHARE) goals and has been continuously decreasing accident numbers and severity The NASA Occupational Health Program is standardizing health data collection at NASA by instituting and evaluating an Agency-wide Health Risk Assessment (HRA) instrument using one of the Mayo Clinic Embody Health Initiatives elements as a tool. NASA's electronic medical records system, which is the product of more than 10 years of effort, will begin to come online during the next year. The Occupational Health Program at NASA began a 2-year independent external quality assurance and improvement review of all Employee Assistance Programs to address the behavioral health of the NASA employees. On a broader level, critical incident stress management (CISM) training and teams provided by the OCHMO continue to support NASA with real time behavioral health support in contingencies and emergency response oper-

Although a relatively small office, the OCHMO brings a broad range of professional expertise to bear on NASA medical policy and oversight, including physicians, life scientists, dieticians, audiologists, behavioral health professionals, industrial hygiene specialists, and safety professionals. Working directly for the Deputy Administrator of NASA, and serving on the senior advisory boards to the NASA Administrator, the NASA Chief Health and Medical Officer is the voice of health and medical policy for an Agency whose mission and charter are to explore the unknown. That mission is about to become more challenging as NASA, the United States, and the world move into a new era of space exploration.

Send information for publication on this page to:

Kim Barber flygrl141@woh.rr.com

Aerospace Nursing Society News

Colleagues..... Friends,

I cannot believe it's already October. Happy fall to everyone! It seems like our scientific meeting was just yesterday. By now everyone has put summer memories behind them, started back into their school and work schedules, and is looking forward to the holidays. However, I would be remiss in my duties as president if I did not remind everyone about the call for abstracts. Our Los Angeles meeting is a mere 7 months away, and abstracts for the meeting are due by October 31. This is a wonderful way to improve your professional expertise as well as networking with others in aviation research and development, so don't be shy.

I wanted to briefly discuss my goals for the ANS for the upcoming year and beyond. Responsibility to be mentors and active organizational participants: Our attempts to create an active membership/mentorship agenda have been... well... unsuccessful. However, I am still convinced that the best way to recruit and keep new members is to provide them avenues for interaction with members who are well acquainted with AsMA. That means, busy or not, all of us who are long-time members of AsMA should become active participants in recruiting and mentoring new members. As AsMA/ANS members, we can personally attest to what the organization has to offer both professionally and personally and to how AsMA works while providing new colleagues invaluable assistance establishing themselves within the organization. If not for Lt Col Nora Taylor, who did this for me when I first attended AsMA, it is possible I would not have become an active member and would have missed this wonderful opportunity to be your president. Nurses are mentors by nature, so it should be natural for us to recruit and mentor others. So, go forth, recruit and mentor!

International perspective: In discussing goals for 2008, our new secretary, LCdr Cloutier, came up with an excellent idea to recruit more international members. AsMA is an international organization representing about 75 nations across the globe; that is, approximately a quarter of our members are from countries other than the United States. Each year, the scientific meeting has three panels (Spanish, German, and French) as well as panels from our Canadian and Australian colleagues. My goal is to expand membership by promoting recruitment of international members, working to promote joint organizational activities (papers, presentations, etc.), and providing membership incentives to join AsMA/ANS. LCdr Cloutier and I are very excited about recruiting new international members to our organization and welcome suggestions related to our international colleagues' recruitment.

Active participation: I mention participation again because it is so vitally important. Many members have the perception that joining AsMA/ANS involves attending the annual scientific meeting, attending the ANS luncheon, and getting the journal monthly; that only a few members are needed to manage, oversee, and govern the organization(s). This could not be farther from the truth as involvement is the key to the health of our organizations. We need all of our members to get actively involved in the functions of ANS/AsMA. Everyone can and should recruit and mentor new members.

Additionally, all members should consider participating on a committee, leading a panel or just assisting in any way possible. It is great fun, you get to meet lots of interesting and exciting people, and you will be contributing to your professional growth and the growth and maintenance of our organization.

Expanding ANS membership to include under-represented specialties: ANS is a network encompassing many specialties includ-

Join the Aerospace Nurses Society Today!

Dues are just \$10 (\$5 allied health professionals). For further information, contact:

Diane Fletcher, ANS Treasurer 4042 Stonewall Lane Shiloh, IL 62221 Work: (618) 206-8467 Home: 618) 830-4581 diane.fletcher-02@scott.af.mil Fletcher4echarter.net

ing aerospace nursing and medicine as well as other related fields such as occupational health and preventative medicine. However, to expand our membership, I believe we need to branch out to other related fields such as human factors, emergency medicine, and allied health science. Currently, I know a number of colleagues in these fields join organizations other than AsMA/ANS because these organizations are thought to better serve these particular specialties. Working together we can turn this trend around by offering these specialties all they need through ANS/AsMA. What better way to facilitate new members than by offering them opportunities for growth, development, and leadership.

Now, as I think about the coming year serving as your President, I want to take a minute to express my appreciation to Cathy DiBiase who mentored me as President-Elect. The organized, absolute professional she is, Cathy's contributions left ANS better prepared for the future and left a legacy she can be proud of. Cathy's patience and consummate leadership have helped smooth my transition into this position.... Thanks Cathy.

As I look forward into 2009, I see many changes on the horizon. The road might not always be easy, but with your help and support, we can have our best year yet.

Kim Barber, BSN, RN ANS President, 2008-2009

Nominations Sought for 2009 AsMA Awards

The Awards Committee of the Aerospace Medical Association, which is responsible for selecting the annual winners of special awards, has set a **December 15** deadline for receiving nominations for awards to be presented at the 2009 Annual Scientific Meeting in Los Angeles, CA. The names of prospective award winners should be submitted as far in advance of the deadline as possible. Lots of time is needed to review all of the names and select the winners. To view a list of past recipients and award descriptions go to the AsMA website: http://www.asma.org/pdf/awrdwin.pdf

Nominations can be made by any member of AsMA.

- 1. The nominee must be a current member of the Association, with the sole exception that the Sidney D. Leverett, Jr., Environmental Science Awards is open to nonmembers.
- 2. Employees of a company sponsoring an award are eligible to receive the award. Self nomination is not allowed. Deceased members may be nominated
- Nominations for the Tuttle and Environmental Science Awards must cite a specific paper printed in Aviation, Space and Environmental Medicine. The award will be given to the first author only.

- 4. An individual can only receive one award in any one year.
- 5. The 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 <u>must be limited to 3 typed pages</u> and will be retained in Association files.

6. 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.

WING NEWS & NOTES

Send information for publication on this page to: **Jennie Bendrick**

8825 Redwood Blvd California City, CA 93505 760-373-810; butljenn@aol.com

President's Column

By Peggy Trumbo

As I look at the names of the Wing Board for this next year, I have feelings of gratefulness for each individual's willingness to serve. And I also have memories of this past meeting in Boston, the people I got to know for the first time and those I got to know better. What marvelous people you Wing members are! Every one of you participates in such special ways during the week of the AsMA Annual Meeting, as well as in specific ways during the year, even though you might not be on the board of the Wing. Every one of you is important to the entire circle of the Wing that spans the globe. This circle is not complete without you.

Are you thinking about southern California yet? In July Nevonna Schroeder, Arrangements Chair, and I had a busy site visit to Los Angeles to plan for the May 2009 meeting at the Westin Bonaventure Hotel. Plans are in the works for our luncheon at a yacht club in Marina del Rey, thanks to our Luncheon Chairperson Joan Marinelli and the generosity of Marilyn Brath who is a member there. The Westin has the perfect space for our Registration, chaired by Jennifer Crowley, and the Hospitality room, planned by Bean Arthur. Jackie Jordan and Issy Jennings have a fabulous revolving room on the top floor of the hotel for the Monday Wing Welcoming Reception. And Betty Jo Lilly is sorting all of the choices for a major tour of Los Angeles for our group as well as a trip to the Getty Museum. We are in good hands with the help of these Wing members and those who are assisting them. More detailed information will be in our next Wing page.

Jennie Bendrick is again compiling this Wing page and our fall and spring newsletters. Thank you, Jennie, for your willingness and efforts towards this important part of the Wing.

Remember our challenge for this year: to

The Board of The Wing of AsMA

find a new member of the Wing. Our membership numbers were great for this past year, and we want to include anyone else who would enjoy this organization and for some reason does not know about it. Your spouse may have a new person at the office who will be learning about AsMA. Let's be sure they also hear about the Wing. Or if you have moved, maybe there is someone in the new office who has not participated in the Wing before. Now is the time to encourage AsMA and Wing membership, with California dreamin' and thoughts of new friendships to come in Los Angeles.

Greetings from your Publicity Chairman--Jennie Bendrick

Hello, Wing Sisters,

It seems like an eternity since I've seen or talked with any of my fellow Wing Sisters. I was very disappointed that I could not attend the meeting in Boston, and I am very anxious to see photos and receive articles from those of you fortunate enough to be able to attend.

I "echo" our President's, Peggy Trumbo's, words...."Every one of you is important to the entire circle of the Wing that spans the globe. The circle is not complete without you."

I look forward to working with all the new Wing Members, Board Members, and any of the Wing members who have news that they would like to share with the rest of us. We will only have six articles for the Journal, and I hope that this year's articles will be the best. Having been a part of the Wing for almost six years, I know that there are a lot of talented, terrific, and very interesting women in this group and I hope that you will be willing to share your experiences and news with the rest of the Wing Members.

Looking forward to working with all of you to make the Wing Page in the Journal the best ever!

2008-2009, Los Angeles

| | _ | | _ |
|--|---|---|---|
| Elected Officers President 1st Vice President 2nd Vice President Secretary Treasurer | Peggy Trumbo Dale Orford Nevonna Schroeder Fonda Hastings Josie Borchardt | Standing Committee (Membership Registration Advance Registration Resolutions Arrangements | Jackie Bohnker Jennifer Crowley |
| Board Members at Large | | Arrangements Subcommittees | |
| Air Force | Wanda Reynolds | Hospitality | Bean Arthur and |
| Navy | Melinda Beane | | Wanda Reynolds |
| Army | Jennifer Crowley | Luncheon | Joan Marinelli |
| Civilian | Judy Kowalsky | Co-Chair | Marilyn Brath |
| International | Els Salisbury | Reception | Jackie Jordan and |
| Appointed Officers Parliamentarian | Helen Lestage | Favors Tours | Issy Jennings Melinda Beane Betty Jo Lilly |
| Communications Publicity: Journal/ Newsletter Marketing | Jennie Bendrick Harriet Hodgson | Special Honorary President Past President 2nd Past President | Susanna Bellenkes Susanna Bellenkes Conoly Barker |

New Board Member from the Lone Star State--Wanda Reynolds

Hailing from West Texas hill country, Wanda Reynolds, our new Air Force Board Member-at-Large, labels herself a "true homemaker." She and husband Randy have built their future-retirement home in Dripping Springs, TX, surrounded by longtime friends and family. They met at Alpine College where Wanda majored in Art. She continues her art interests doing occasional interior design over



the years and in cross stitch (14 count aida cloth) which she frames. "Everyone needs something to get lost in, and I can loose myself for hours in cross stitch," says Wanda.

Wanda also does event planning for her church and enjoys reading. But what she

does in earnest is the result of a volunteer job she had when they were stationed in Guam. There she managed the wives gift shop, and as such, she became a discerning and specialty shopper, buying in foreign countries for the gift shop and window shopping until she found exactly the right thing.

Other stations for the Reynolds have been Hawaii, Australia, Arizona, and several tours in San Antonio. Randy had a tour in Iraq for six months and a year in Korea, but they are "home now" according to Wanda.

Wanda has been a member of The Wing off and on since 1992, depending on where they were living at the time. She is looking forward to helping the students in the RAM class learn about AsMA, and all the things that happen in The Wing for their spouses to do when they come to meetings. Wanda sounds like just the right person for her board position, and it is great to have her enthusiasm and clear thinking.

To read 'The Wing' page online, Go to www.asma.org, Click on AsMA News Online, Click on Wing News and Notes



Join the Wing!

The Wing of the Aerospace Medical Association was formed in 1952.

Dues are \$40 per year. For more information, contact:

Jackie Bohnker 2253 Riverside Dr. S. Clearwater, FL 33764 727-812-4868

e-mail: jpbohnker@juno.com

Thank You! Corporate and Sustaining Members of the Aerospace Medical Association



The financial resources of individual members alone cannot sustain the Association's pursuit of its broad international goals and objectives. Its 79-year history is documented by innumerable medical contributions toward flying health and safety that have become daily expectations by the world's entire flying population—commercial, military, and private aviation. However, support from private and industrial sources is essential. The following organizations, who share the Association's objectives or have benefitted from its past or current activities, have affirmed their support of the Association through Corporate Membership.

Aeromedic Innovations

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Program, UTMB

Air Canada

Aircraft Owners and Pilots Association

Air Line Pilots Association

American Airlines

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Sperian Eye and Face Protection, Inc.

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United Airlines

Universities Space Research Association

Virtual Flight Surgeons, Inc.

Wyle Laboratories, Inc.

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

NEWS OF MEMBERS

LCDR Corry Jeb Kucik, MC, USN recently completed his final year of residency in anesthesiology at National Naval Medical Center, Bethesda, MD, having served as Chief Resident and President of the Housestaff Senate. He has transferred to Massachusetts General Hospital in Boston for a 1-year fellowship in critical care medicine.

Capt (N) Cyd E. Courchesne, MD, DAvMed, has been appointed Director Medical Policy at the Canadian Forces Health Services Group Headquarters in Ottawa.

Col Vince Michaud, USAF, MC, recently completed a 2-year assignment as the Hospital Commander at Osan Air Base, Republic of Korea. He has been reassigned to NASA Headquarters in Washington, DC, as a USAF Detailee to be the Division Director for Medicine of Extreme Environments.

New Members

Boswell, Scott H., M.D., Jasper, AL Chema, Andrew R., M.D., Cuyahoga Falls, OH

Denz, Christopher R., M.B., Ch.B., Menora, WA, Australia

Hayes, William, Capt., USAF, MC, Altus AFB, OK

Kothari, Viral, M.D., Sugar Lane, TX Kramer, Robyn, M.D., APO, AP Lewis, Leigh, M.D., Galveston, TX Masrani, Punita, M.B.B.S., M.D., Worli, Mumbai, India

Miller, John G. O., Lt. Col., USAF, MC, Rancho Mirage, CA

Musson, David, M.D., Ph.D., Hamilton, ON, Canada

Razaq, Abdul, Maj., M.B., Ch.B., APO AE Timperley, Andrew, Wg. Cdr., RAF, MC, Cottenham, UK

In Memory of George Martin

By Cathy DiBiase, NASA-KSC, FL

On July 21st of this year, a colleague and friend to many in Aerospace Medicine, was lost in a B-52 crash near Guam. Col. George Martin, USAF, MC, was a 25-year Air Force officer and was serving as Deputy Commander of the 36th Medical Group Air Force Clinic at Anderson AFB, Guam, when he perished with five others in the crash of a B-52 flight participating in Guam Liberation Day celebrations.

George is survived by his wife Ursula, 12year-old daughter Gemini, with another child on the way, and four siblings.

George had ties to his home State of Ohio and to Florida. He attended Ohio State University, obtaining a B.S. in Microbiology in 1980. After 4 yr of military duty as a missile launch officer, and earning a Masters, he returned to Ohio State to start medical school. In 1989 he began his Emergency Medicine Residency at John Hopkins

University. Following completion of his residency he returned to military duty. In 1994 he diligently worked to convince his ranking officials to become more involved in space medicine by allowing military medical personnel to detail with NASA. George was so convincing that he was allowed to detail at NASA's Kennedy Space Center from 1995 to 1998. From 1998 to the present, George had served as a Flight Surgeon and Clinic command staff.

George was well liked by all who knew him. If you perform a search on his name you will find comments from those who mourn him from all over the world. Medics from Brevard County, Florida Fire Rescue and Nurses from Wuesthoff Hospital in Rockledge, FL (where George moonlighted) commented that shifts in the ER were made more enjoyable by his sense of humor. Medics, co-workers, and colleagues alike, warmly commented on his intelligence, caring manner, and love for space.

I asked several personnel from Kennedy Space Center who worked with George to share their thoughts:

Philip Scarpa shared – "George was a special guy. A rare individual nowadays. A true space fanatic. He was more outward about it than most, and proud of it for sure. George was a pioneer and a bit of a rebel. He created the position and was our first KSC DoD detailee and he loved every minute of it. He could have been, and should have been an astronaut. For fate or other factors, that didn't work out, but from

IAMFSP Scholarship

The International Association of Military Flight Surgeon Pilots, IAMFSP, is pleased to announce it is offering a \$500.00 (US) scholarship available to a student in the medical sciences for the purpose of attending the May 2009 AsMA Scientific Meeting in Los Angeles. Students eligible include Masters, or Doctorate candidates in the medical sciences. The Scholarship is intended to defray the cost of attending the AsMA annual Scientific Meeting. Any interested candidates should send a letter describing their interest in the scholarship and why they would be the best candidate (250 words or less).

Please include school status, and interest in aerospace medicine / human flight performance / pilot-physician issues. The scholarship will be presented in person at the Tuesday Night 2009 business meeting of the IAMFSP in Los Angeles. Should the primary selectee not be able to attend the AsMA convention, the Scholarship will pass to an alternate that is attending. Send applications (postmark) no later than 31 January 2009 to:

IAMFSP Scholarship Fund C/O Kris Belland 5910 Osceola Rd Bethesda, MD 20816 my few interactions with George since his time at KSC I know he never stopped believing in the need for space exploration and the promise it held for humanity's future. He always had a great smile, a good sense of humor, and an abundant enthusiasm that I, as a fellow space cadet, will miss most of all. Godspeed George Martin."

Martha Vreeland wrote – "Working with Dr. Martin was an inspiration to me personally. He had a way about him that made you reflect about your self and made you want to be the best person you could be by the way he lived his life. He was someone to look up to, someone to respect, he walked the talk. We did the KSC Bone Marrow Drive together one year and while working that project I got a chance to get to see a little bit more through his bright cheerful smile. I learned he loved being a physician, no surprise there; it wasn't that he accomplished something big in his life personally it was that he could accomplish something big in others lives. Simply put - he just wanted to heal others, to stop others from hurting and his greatest sense of giving was when he found out the person had no insurance he would reassure them it wouldn't matter that there would be no bill. In my eyes that is who he was to me, a giving man, who loved his family dearly. I will cherish the memories of working with Dr. Martin; he is the true definition of a hero in my eyes."

Though this was difficult to write, remembering George and reading what others stated was an enriching experience. George was indeed a person full of life, who lived with passion. His love for the space program and the Ohio State Buckeyes was unparalleled. He also loved diving, golf, and sports cars. George always dreamed of being an astronaut so I hope that now he is soaring amongst the stars with those he idolized. We will all miss him.

In Memoriam Arthur P. Ginsburg

Arthur P. Ginsburg, Ph.D., a pioneer in vision science and testing, died in January. He began his career in vision research in the United States Air Force in the late 70s. Combining his engineering knowledge with a growing interest in creating a "seeing" machine, Dr. Ginsburg began perfecting a mathematical model of how we see.

He also worked on ways to test the functional vision performance of Air Force pilots. He pioneered the transfer of basic research on human vision modeling to new functional vision performance test methods and systems. His growing body of research and work on functional vision performance tests prompted the Air Force and NASA to ask him to develop a test for shuttle astronauts to conduct while they were in space. Over 10 shuttle missions have included his innovative testing devices.

See GINSBURG, p. 1006.

GINSBURG, from p. 1005.

Dr. Ginsburg received his Ph.D. in Biophysics from the University of Cambridge, England and a M.S. in Bioengineering from the Air Force Institute of Technology, Wright-Patterson Air Force Base, OH. His also recieved a B.S. degree in Systems Engineering from Widener College, Chester, PA.

After retiring from the Air Force, Dr. Ginsburg established a private research firm to continue his work on functional vision testing technologies. Based on his more than 32 years of work in basic and applied vision research, he was recognized as an authority and was sought for expert advice and consultation services by the government, academia and the private sector on vision problems, performance and functional standards. As a consultant to both ophthalmic pharmaceutical and device industries, Dr. Ginsburg designed and implemented study protocols and developed a day/night driving simulator used to measure functional vision outcomes for FDA clinical trials of pharmaceuticals and intraocular lenses.

He published over 60 works including scientific book chapters, research papers and reports. Based on his extensive work in the field, Dr. Ginsburg held 10 technology patents, most notably, a filter model of vision, the sine-wave grating functional acuity contrast test, contrast sensitivity clinical test systems, glare view-in vision testers and pictorial analysis software.

Among his many achievements he received the Air Force Meritorious Service Medal (1985), Air Force Systems Command Award for Scientific Achievement (1979), Air Force Systems Command Award for Technical Achievement (1978), and Air Force Aerospace Medical Research Laboratory's Harry G. Armstrong Award for Scientific Excellence (1978).

He was an Associate Fellow of AsMA and a member of the Optical Society of America, Human Factors and Ergonomics Society, Advancement of Research in Vision & Ophthalmology, American Society for Cataract and Refractive Surgery, Aerospace Human Factors Society, and The Society of Forensic Engineers.

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To purchase, contact Sheryl Kildall at 703-739-2240, x107; skildall@asma.org

Remember!

Council Meetings are open to all members of the AsMA. Your input and attendance are always welcome. Our next meeting will be November 19, 2008 at the Eisenhower Ave. Holiday Inn, Alexandria, VA.

CLASSIFIED ADS

POSITIONS AVAILABLE

OCCUPATIONAL MEDICINE PHYSICIAN

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