

President's Page

AsMA has an outstanding leadership team, and I think it is appropriate that readers get a chance to hear other voices on the president's page. Without obligating future presidents, I have offered each of the current vice-president's an opportunity to update AsMA membership on the many ongoing activities under their leadership. The following article is the first in this series.

Education and Research

By James T. Webb, Ph.D., Vice President for Education and Research

The Strategic Plan developed by President Melchor Antuñano is alive and well. Several items in that compendium of actions for AsMA have helped define and improve Aerospace Medicine involvement in education and research. Five standing committees and several constituent organizations have taken on wide-ranging tasks that directly affect this area of our Association.

A subcommittee appointed by Dr. Thomas Nesthus, Chair of the Aerospace Human Factors Committee, worked extensively on a position paper on "Fatigue Countermeasures in Aviation," which is targeted to be ready for review and approval by our May 2007 meeting. This paper will consider and report on all potential countermeasures to reduce fatigue in both military and civilian aircrew and draws upon the experience and background of many prominent researchers in the field.

The Aviation Safety Committee, chaired by Dr. Chuck DeJohn, has two very productive subcommittees. The Civil Aviation Safety Subcommittee, chaired by Dr. Mary Cimrmancic, has addressed the issue of "Optimal Cabin Altitude," and with Dr. John Ernsting as advisor, is developing a position paper on the subject. This subcommittee submitted a resolution at the Orlando meeting on "Aeromedical Contributions to Major Aircraft Accident Investigations." The resolution was passed and communicated by letter to ICAO. The Military Aviation Safety Subcommittee, chaired by Dr. Tarek Sardana, researched the issue of a "Recommended Policy on Medical Standards for Unmanned Aviation Vehicle Controllers" (jointly with ASAMS), and has drafted a resolution for consideration at our May meeting.

The History and Archives Committee, under the leadership of Dr. Stan Mohler, has produced a review of the individuals for whom our annual awards are named. The rich history of their involvement in aerospace medicine and allied fields is reflected in the recipients of these awards. The committee is planning a double panel for the May meeting highlighting the history of research at Brooks Air Force Base (City-Base), TX, before the base closes in 2011. They also will be providing historical aviation films with aeromedical implications at New Orleans.

The Education and Training Committee, chaired by Dr. Jan Stepanek, is tackling the formation of a world-



Richard T. Jennings, M.D., M.S.

wide compendium of aviation, space, and environmental medicine research and training programs. This effort involves several committees, and the result will be available on the AsMA web site.

The Science and Technology Committee, under Dr. Barry Shender's leadership, has provided our Annual Scientific Meeting with superb panels and sessions and continues to publish "Science and Technology Watch" columns in our journal. They have several panels planned for the May meeting including one on open source software tools.

The Scientific Program Committee, chaired by Dr. Jeff Myers, evaluated a significant number of abstracts submitted for our 2006 meeting and incorporated a suggestion by President-elect Dr. Jack Hastings to color-code the sessions by area which assisted attendees in finding sessions of personal and professional interest. Dr. Joe Dervay is the Chair of the 2007 Scientific Program Committee meeting in New Orleans. His team (Deputy Chair, Dr. Susan Northrup; Panel Chair, Dr. Pete Mapes; Poster Chair, Dr. Philip Scarpa; Arrangements, Dr. Bob Johnson; and Registration, Dr. Gordon Landsman) is preparing for another successful meeting in New Orleans. On-site self-registration at a computer kiosk should be available as a trial next year.

Constituent organizations involved with education and research made great gains by producing position papers and resolutions which helped to further understanding and influence action by other organizations and government agencies. One example is the position paper on "Countermeasures/Medical Care for Moon/Mars Exploration," being developed by the Space Medicine Association with assistance from the Society of NASA Flight Surgeons.

Our journal editor-in-chief, Dr. Sarah A. Nunneley, managing editor, Ms. Pam Day, and staff have improved the product and notably advanced journal accessibility with free online access to members. The home office journal staff has contracted the creation of an archival

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Medical News

Executive Director's Column



Rayman

Potpourri

Since this is my last column for 2006, I thought I would just provide a synopsis of what your Association has been doing for you. Certainly, if you have any questions or would like to discuss any of these or any other issues, please don't hesitate to call me or contact me by e-mail.

1. Your Home Office has been working very hard with the Exploration Life & Medical Sciences (ELMS) coalition, meeting frequently with Congressional leaders, exhorting them to provide NASA with a reasonable budget for space life sciences/medical care research. This also included sponsoring an open meeting in the Dirksen Building, right in the backyard of our Congress. Very recently we shifted our sights towards our Executive Branch of government and met with Dr. Robie Roy, Assistant Director for Space and Aeronautics, the White House. AsMA continues to strongly support NASA life sciences.
2. We have formed an ad hoc Committee to explore the feasibility of establishing a central repository to archive passenger in-flight medical events. This data could then be retrieved by the airlines and used to better plan in-flight medical care capability and design in-flight medical emergency kits. We are in the midst of this project and hope that we can somehow entice many of the airlines to participate in this program. You'll be hearing more about this at a later date.
3. Your Association has also met with a number of aeronautical organizations and academia in an effort to enhance aeronautics research. During the past year, substantial funds have been cut, leading to the elimination of many programs and drastic cuts in others.
4. We have responded to an FAA NPRM regarding space tourism. We were very supportive of the NPRM applauding liberal medical standards for space passengers while recommending screening of astronaut pilots in accordance with reasonable and applicable recommendations published by the U.S. Preventive Services Task Force.
5. We continue to encourage students and residents to join AsMA by staffing booths at the AMA House of Delegates and other such forums. A Speakers Bureau has been established and the medical schools have been contacted offering them speakers.

6. One of the more ambitious programs we are currently entertaining is the establishment of a Foundation. The monies for the Foundation will be used for student/resident scholarships to attend aerospace medicine meetings. At this time, a Board of Directors has been selected with Dr. Richard Jennings serving as Chair. We are currently seeking IRS approval for a 501c(3) status. It is anticipated that the legalities will be consummated before the end of the year with the Foundation up and running for our 2008 Meeting.
7. A resolution calling for aeromedical specialists to be included in aircraft accident investigation was approved at the 2006 Business Meeting. This AsMA policy has been forwarded to ICAO, NTSB, FAA, and other regulatory agencies.
8. A resolution calling for auto-GCAS for high performance military aircraft was approved at a previous Business Meeting, and has been forwarded to the U.S. Department of Defense and the various services. Although we do not know how loudly our voice was received, we do know that several million dollars have been given to research in this area by the Department of Defense.
9. A letter was sent to various regulatory agencies worldwide indicating that there is no evidence that administering periodic medical examinations to flight attendants would improve flying safety.

These are some of the major programs we have been working on. Of course there are many others as well. All this could not have been done without the willingness of your Officers and Committees to put in long hours. I would like to express my personal thanks to everyone who gave their time. I also would like to take this opportunity to wish everyone a Happy Holiday Season.

Associate Fellows Class of 2007

The following AsMA members achieved Associate Fellowship status and were approved by the Executive Committee during their meeting in August 2006:

- Eugenia A. Bopp
- LTC John Campbell, USA, MC
- Cathy P. DiBiase, B.Sc.
- Nigel P. Dowdall, M.B.Ch.B.
- Capt. Kenneth S. Egerstrom, USAF, MC
- Lt.Col. Alfred C. Emmel, USAF, MC
- LTC(P) Keith L. Hiatt, USA, MC
- Angelo P. Karavolos, M.S.
- Kjell N. Lindgren, M.D., M.S.
- Ernest J. Prochazka, M.D., M.P.H.
- Col. James R. Stewart, USAF, MC
- Maj. Leigh A. Swanson, USAF, MC
- Maj. Julie N. Sundstrom, USAF, BSC
- Maj. Anthony J. Wurmstein, USAF, BS

52nd Conference of German Flight Surgeons, Flight Psychologists, and Flight Surgeon Assistants Held

The 52nd Conference of Flight Surgeons, Flight Psychologists, and Flight Surgeon Assistants, entitled "50 Years of Aviation Medicine in the Bundeswehr - Joint, Allied and Combined," was held in Strausberg from June 7-9, 2006.

The Chief of Staff Lieutenant General Klaus-Peter Stieglitz, GAF, presided over the opening of the conference in the presence of more than 180 civilian and military participants and guests from Germany and abroad. In his opening address, he described the successful development of the Flight Surgeon Service in the overall context of the development of the German Air Force (GAF). He expressed his particular thanks to all members of the Flight Surgeon Service for the work they have done and the very intensive personal commitment they have made. He also emphasized the necessity of maintaining competence in aviation medicine while paying particular attention to international cooperation in order to guarantee further successful development in the future.

The opening address was followed by speeches from the Deputy Commander of the Joint Medical Forces Command (JMFC), Maj. Gen. Siebertz, GAF, MC; the Head of the Royal Air Force (RAF) Center of Aviation Medicine, Gp. Capt. David P.

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52nd FLIGHT SURGEON CONFERENCE--(left to right): Brig. Gen. Rödiger, Surgeon General of the GAF; Lt. Gen. Stieglitz, Chief of Staff, GAF; Col. Senger, Commander, Bundeswehr Academy for Information and Communication; Col. van der Hoorn, RNLAf; Col. Ediger, USAFE Command Surgeon; Col. Bachmann, USAFSAM; Col. Grosz, Commander, HUN Aeromedical Hospital.

This Month in Aerospace Medicine History-- November 2006

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

Seventy-five Years Ago

Medical information from sources other than the patient: "Question: An applicant presents no evidence of abnormal urine. Tests for sugar are negative. From outside sources I learn he has had sugar, has been treated with insulin and is now on a rigid diet. In my examination, I can find no evidence of diabetes. Should I classify him as a diabetic and refuse student's license? If so, why, for I have no evidence to support my classification.

"Answer: A somewhat similar question was asked at the Conference in 1930. The then Medical Director answered that a license should not be granted. In this case, however, the point seems to be whether or not the Examiner has a right to use the information not obtained from the applicant or his examination.

"The Examiner certainly is justified in making a searching examination of the history. The applicant should be asked not only if he has ever had diabetes but if he has ever had sugar in his urine, or was ever on a restricted diet of any kind. If he is still taking insulin he should be asked to explain the hypodermic marks. If he absolutely denies everything, then it is believed the Examiner would be justified in telling him that he suspects a susceptibility to diabetes and give him the option of disqualification or a sugar tolerance test.

"The question may be raised whether or not, in view of the control insulin exercises, the applicant might be qualified as a private pilot. The answer to this is, a private pilot goes a year without further examination and much may happen in that year" (2).

Fifty Years Ago

Growing technology and the shrinking world: "In the last decade nuclear weapons have become thermonuclear; and in measuring their destructive potential, the kiloton has given away to the megaton. Recently the newspapers have reported aircraft speeds of 1,900 miles per hour; and merely exceeding the speed of sound has become so commonplace, as well as fascinating, that it is necessary to restrict attacks on the sound barrier because of the explosive atmospheric effects. This barrier was once as formidable in men's minds as was the edge of the seas before Columbus" (5).

Increasing engine power and noise output reduction: "In the immediate future, aircraft engine power will be increased. The acoustic power output will also increase. Estimates of this increase have been made. Our typical power plant operated with an afterburner produces one hundred kilowatts of acoustic power. Future engines may produce about two thousand kilowatts of acoustic power. This is a power level increase of thirteen decibels, an acoustic power increase of about twenty times. This would also mean a sound-pressure level increase of about thirteen decibels in the direction of maximum radiation.

"In opposition to these acoustic power increases, there are now known methods for reducing the source level that may result in a power level decrease of six to eight decibels. This would mean in the future a remaining power level increment of five to seven decibels...

"The net result is: Noise power will increase. If our best source noise reduction methods are applied to the new engines and improved somewhat, the noise problem for people located at moderate and large distances from the aircraft will remain about what it is today. Some reduction in sound-pressure levels may result. There is some hope that new methods for source reduction of noise output can be developed that may result in slightly more reduction in the noise levels in areas surrounding an air base" (6).

Aircraft speed and pilot reaction time: "In high-speed aircraft additional demands are placed upon the pilot insofar as vision and reaction time are concerned. With high closing speeds only a few seconds may elapse between the sighting of another aircraft and its passing. Often, the decision for action must be made and the correct control response initiated and carried out in a matter of seconds. Flight obstacles must be picked up at greater distances in order for the proper evasive action to be taken. Midair collisions, especially in the neighborhood of airports, are currently a serious problem. Such hazards naturally increase while operating at greater speeds... While pilots of high-speed aircraft carry out many of the same activities as they would in slower planes, there is often much less time and a high premium is, consequently, put upon reaction time. A moment's hesitation can have serious implications. However, it is under such conditions of stress requiring instantaneous decisions that human errors are most likely to occur in reading instruments or operating controls. A pilot may often do what seems 'natural' rather than what he has been trained to do. For this reason all of the pilot's operational activities should be designed, insofar as possible, to coincide with what his natural reactions would be. Significant progress has been made along these lines in recent years" (4).

Twenty-five Years Ago

The futures of Onboard Oxygen Generation Systems (Environmental and Energy Systems, AiResearch Manufacturing Company, Torrance, CA): "During the 1970s, the development of onboard oxygen generation systems (OBOGS) progressed through ground and flight test phases to the point where a second-generation concept is now production qualified and additional alternatives are being evaluated... The following areas where further development can be of significant benefit to OBOGS... First and foremost is the continuing development of system requirements that meet the physiological needs of the crew through practical engineering hardware solutions. This is an iterative process and cannot be achieved by either the physiologist or the engineers alone. The manufacturing industry must understand what is needed; the specifying agencies need to know the implications of their requirements on hardware configuration, reliability, and cost.

"The oxygen compressor represents a potential solution to several of the drawbacks of current molecular sieve systems, including oxygen concentration control and self-sufficient backup supply. Its use should be considered as a possibility in future designs.

"Breathing regulators are already identified as a key development area, particularly if the current low-pressure output of molecular sieve OBOGS is retained.

"Finally, chemical warfare protection must be included in any future OBOGS. While there exists a strong possibility that OBOGS them-

selves can become a part of the solution because of the elimination of breathing mixtures using cabin air, it seems at least highly probable that filtering will become necessary in the design of the aircrew protective equipment and a requirement of future systems" (3).

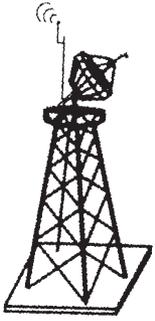
Colored navigation lights to identify intruder aircraft (Visual Ergonomics Research Unit, Victorian College of Optometry and Department of Optometry, University of Melbourne, Australia): "Navigation lights are a set of color-coded signals intended to indicate the presence, orientation, and relative direction of aircraft at night, and thereby reduce the possibility of midair collisions. It is known that some people with defective color vision have difficulty with quite simple codes. Accordingly, the International Civil Aviation Organization (ICAO) has recommended - and most countries - apply - that applicants for pilot's licenses demonstrate the ability to recognize colored light signals. Pilots who fail to meet this requirement are restricted from flying at night. But is the navigation light signal system effective? This paper concludes that the navigation light system at night can serve as a crude screening method to categorize intruder aircraft into 'potential threat' and 'no threat' categories. An experiment is described which shows that observers with normal color vision can determine intruder aircraft orientation and relative direction from the navigation light code with a moderately high degree of reliability. The reliability of judgment is, however, decreased by the higher-intensity presence lights also displayed by aircraft" (1).

Pre-existing disease in Naval aviation mishaps (Naval Safety Center, Naval Air Station, Norfolk, VA): "Pre-existing disease is present in Naval aircraft mishaps, but there is presently no indication that it actually causes, or even contributes to, the mishap sequence... Naval aviators are a healthy, watched-over, well-defined young population. Diagnosed pre-existing disease which could be incapacitating is disqualifying for aviation duty. The pre-existing diseases reported in Medical Officers' Reports usually would not be incapacitating. However, a disease process may present and contribute significantly to a 'pilot error' or 'undetermined' mishap, and not be found at autopsy" (7).

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3. Manatt, SA Onboard oxygen generation systems. *Aviat Space Environ Med*, 1981; 52(11):645-53.
4. McFarland RA. Hazards of high-altitude-speed flight. *SAE Journal*, 1956 (Nov).
5. Ogle DC. The once formidable sound barrier. *US Air Force Medical Service Digest*, 1956 (Nov).
6. Parrack HO. Noise, vibration, and people. *Noise Control*, 1956 (Nov).
7. Voge VM. Role of pre-existing disease in the causation of naval aircraft mishaps. *Aviat Space Environ Med* 1981; 52(11):677-82.

Use the website!
www.asma.org



Science & Technology Watch

Keeping You Informed Of The Latest Advances In Science And Technology

This month's edition of the Watch provides a sneak peek of the progress of a new type of dynamic simulation tool that allows study of the most dangerous and unpredictable phase of high speed ejection.

Parachute Opening Shock Emulator with Pitch and Yaw Control

Glenn R Paskoff
Naval Air Warfare Center Aircraft Division
Patuxent River, MD

Ejection at high airspeed is a highly chaotic event that can be characterized by several main phases. These are: 1) Initiation/Catapult; 2) Rocket motor; 3) Drogue Stabilization; 4) Parachute Opening; and 5) Parachute Landing. Each of these phases has inherent dangers and is capable of resulting in injury to the aviator. Under most ejection conditions, the most hazardous phase to the aviator is the parachute opening shock. This is because the orientation of the aviator's body at the time the parachute opens is unpredictable. This can result in extremely high loads being exerted upon the aviator's torso, which are then transmitted through to the head and neck as the body is instantly pulled by the risers.

Parachute opening shock results in an abrupt deceleration of the body that occurs when the aviator's personal parachute achieves full inflation. Peak acceleration during this phase is a function of aircrew mass properties, barometric and dynamic pressures, and recovery parachute type, drag area, and opening aids. Opening aids, such as spreader guns and pull-down vent lines, decrease the time it takes the parachute to open, and thus increase the resultant acceleration on the aircrew. Lighter aircrew typically experience higher opening shock loads due to their lesser mass (3). Depending upon the initial position of the body, the deceleration and angular acceleration may be aggravated as the body is twisted and jerked into alignment with the parachute's opening vector. Currently used human tolerance limits for torso accelerations are derived from low level testing performed on restrained human subjects and experiments on non-human primates. This data has limited application to parachute opening shock in which the body is completely unrestrained and the loading may be applied in any direction (1,2).

Developmental and qualification testing is a requirement on all new and existing life support systems. The intent of such testing is to comprehensively determine the perfor-

mance of the new system/subsystem and to determine if it adversely affects occupant safety. Lower level testing serves to reduce developmental costs by identifying high risk areas. Current test capabilities include the ability to represent the catapult phase of ejection, windblast effects, and full system level ejection tests. However, there is no repeatable means for determining parachute opening shock severity. Even under the most controlled circumstances, results from instrumented manikin system level tests have recorded large variations in accelerations and head and neck loads. With the increasing reliance on helmet-mounted devices and the inclusion of small stature females into the aviator population, it is imperative that a test capability be devised that can realistically simulate this event and identify system/subsystem deficiencies early in developmental programs.

Recently, a Parachute Opening Shock Emulator (POSE) that integrates to the Naval Air Warfare Center Aircraft Division (NAWCAD) Horizontal Accelerator facility was developed as part of the NAWCAD Research and Engineering Science and Technology Initiatives Program (STIP). This fixture provides a repeatable method for examining the opening shock phase of the ejection and is capable of controlling the initial orientation of the seat/occupant with regard to pitch. Initial tests using the POSE will occur in late 2006. However, the current design does not take into account the effect of combined yaw and pitch. Adding a yaw component to the initial orientation introduces a significant increase in the level of neck injury risk to the aviator and degree of realism to the simulation. The US Office of Naval Research (ONR) is funding an effort to modify the existing test fixture to add a yaw capability and to then quantitatively determine the limits of human cervical spine tolerance to parachute opening shock as a function of both pitch and yaw.

Currently accepted human tolerance limits for the cervical spine were derived specifically for the automotive crash environment, primarily $\pm G_x$ deceleration (4). As part of the ONR Future Naval Capabilities (FNC) initiative, NAWC is leading an effort to develop an anatomically based probabilistic parametric cervical spine injury model for military applications (5,6). Data from the POSE, including peak accelerations, onset rates, forces and moments, will be used to parametrically determine the effect of aviator size and helmet configuration on the dynamics and kinematics of the event and to determine how that correlates to transmitted loads. The combination of modeling tools and physical simulation can provide insights into total system level performance and safety early in program development to enable cost effective design modifications.

To date, several potential design solutions were examined that would provide the necessary degrees of freedom to the fixture while maintaining the same level of control. Computer modeling was used to determine the most viable solution, while considering trade-offs to manufacturing costs, ease of use during testing, safety, structural integrity, and seat/man interaction as it relates to ejection fidelity. Computer modeling will continue to determine structural issues during construction and testing that may arise as a result of the increased complexity of the dy-

amic response of the POSE. Dynamic structural response will examine each of these issues to ensure that the final fixture performs safely and as intended.

References

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2. Ewing CL. Proposed Human Tolerance Limits for Parachute Opening Shock. Presentation at Aerospace Medical Association conference, 1977; Naval Biodynamics Laboratory, New Orleans, LA.
3. Hall JB. Risks for Aircrew Outside the Navy Ejection Seat Qualified Weight Range. Patuxent River MD: Naval Air Warfare Center Aircraft Division; 1999 Feb. Report No.: NAWCADPAX/TR-1999/18.
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5. Shender BS. Cervical Spine Injury Prediction Model [Science and Technology Watch column]. Aviat Space Environ Med 2005; 76:517-18.
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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 AsMA News link under Publications.

MEETINGS CALENDAR 2006-2007

November 2-3, 2006, London, UK.

Aviation Health: Tackling the Issues. Full details can be found at www.quaynote.com or contact Alison Singhal via e-mail or phone +44 (0) 20 8374 6474

November 8-11, 2006, Huatulco,

Oaxaca, México. XXIII International Meeting of Aerospace Medicine, sponsored by the Mexican Association on Aviation Medicine, A.C. General Theme: Advances in Clinical Aerospace Medicine. For additional information, please contact: www.amma.org.mx or lamezcua@att.net.mx

November 9-12, 2006, Eilat, Israel. Air

Travel and Health. This symposium will deal with flight physiology and a wide array of health issues in air travelers. For more info, visit www.palexconventions.co.il/ath2006.

March 1-4, 2007, Orlando, FL. The

American College of Legal Medicine's 47th Conference on Legal Medicine at the Caribe Royale Resort. For more information visit www.aclm.org or contact Sue O'Sullivan at info@aclm.org or by phone at 847-969-0283.

April 22-26, 2007, Dayton, OH.

International Symposium on Aviation Psychology: "Airspace as a Cognitive System." For more info, visit www.wright.edu/isap.

FLIGHT SURGEONS, from p. 1202.

Gradwell, RAF, MC; the Surgeon General of the Royal Netherlands Air Force (RNLAf), Col. John van der Hoorn; the Commander of the U.S. Air Force School of Aerospace Medicine, Col. Richard Bachmann; the Command Surgeon of the U.S. Air Forces in Europe (USAFE), Col. Mark Ediger; and Prof. Landgraf, President of the German Association for Aviation and Space Medicine.

In a subsequent keynote speech, the Surgeon General of the German Air Force, Brig. Gen. Erich Rödig, GAF, MC, outlined the development of modern aviation medicine into an ever more multidisciplinary, independent specialty field which has gained operational significance. According to Brig. Gen. Rödig, particular emphasis will have to be placed on human systems integration and human performance enhancement as well as crew resource management in the future, especially during everyday work in the flying units and elements. Therefore, functional follow-up training in the field of aviation and operational medicine, physical fitness, and the maintenance or improvement of foreign language skills are indispensable preconditions that will allow the Flight Surgeon Service to meet the joint, allied, and combined responsibilities assigned to them during missions.

Another highlight of the opening day was the two ceremonial addresses by Prof. Gunga of the Charité in Berlin on the subject of "Life and Gravity" and by Prof. Stüben, Head of Medical Service, Deutsche Lufthansa AG, on the subject of "50 Years of Civil-Military Cooperation in Aviation Medicine

A particular highlight of the conference was the soirée at the Julius Leber Barracks, which bid farewell to the Surgeon General, Bundeswehr, who will be leaving the community of flight surgeons. Brig. Gen. Rödig recounted the most important stages of the particularly successful flight surgeon career of Vice-Admiral Karsten Ocker, GAF, MC. In addition to his assignments at Naval Air Wings 3 and 5 and as division surgeon of the Naval Air Division, Vice-Admiral Ocker looked back at a more than 13-year-long assignment as flight surgeon. In his reply, the Surgeon General, Bundeswehr, thanked the Team "Aviation Medicine" for the work performed, particularly the commitment shown during missions abroad and the contribution of the Flight Surgeon Service to the success of aeromedical evacuation as a joint task.

This year's prize winners from the Flight Surgeon Service were also honored on that evening. Master Sergeant Jana Klose was awarded the title "Flight Surgeon Assistant of the Year." The title "Flight Surgeon of the Year" was awarded to the Team "Aviation Medicine" of the Celle Army Air Base, and Maj. Tilman Moll, GAF, MC, received the "Scientific Award 2006" in recognition of his scientific accomplishments in the field of aerospace medicine. All award winners also had the honor of receiving the personal congratulations of the Surgeon General, Bundeswehr, when they were handed their awards. The Deputy Surgeon General of the German Air Force, Col. Hans Pongratz, MC, who retired in October, was also bidden farewell. The Surgeon General, Bundeswehr, joined in the thanks and good wishes of the previous speaker, Brig. Gen. Rödig.

Aerospace Nursing Society President's Message

It is time to nominate candidates for the Mary T. Klinker Flight Nurse Award. December 15, 2006, is the due date for the stellar nurses' award information to be sent to the Awards Chair, Andy Bellenkes at Andrew.bellenkes@usafa.af.mil and to AsMA Home Office at gvargas@asma.org. You may use the online form which is on the AsMA website in the Members Only area: <https://www.asma.org/members/awards/awardnomination.php>, or a downloadable Word form available at: http://www.asma.org/aboutasma/index.php#Downloadable_Materials.

Remember that the Aerospace Nursing Society is a dynamic constituent organization of the Aerospace Medical Association. Our membership includes nurses and technicians from the U.S. Air Force, Army, Navy, in addition to civilian and international members from Australia, Canada, and Korea. One of our goals for this year is to expand our web site and focus on new contacts in order to recruit new members into the organization.

Our website is almost ready to add more exciting activities related to our society. If you have any recent or historical photos that you would like to be posted on the site send them to me at Janet.sanner@faa.gov so that they can be shared. I look forward to hearing from you.

I'd like to take this opportunity to wish everyone a "Happy Thanksgiving!"

**Janet L. Sanner, RN, MSN, COHN-S, CCM
President, Aerospace Nursing Society**

Articles of Aeromedical Interest

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

1. Coggan D. Health risks from mobile phone base stations. *Occup Environ Med* 2006; 63:298-9.
2. Daniell WE, Swan SS, McDaniel MM, et al. Noise exposure and hearing loss prevention programmes after 20 years of regulation in the United States. *Occup Environ Med* 2006; 63:343-51.
3. Juckett G. Avian influenza: preparing for a pandemic. *Am Fam Physician* 2006; 74:783-90.
4. Norback D, Lindgren T, Wieslander G. Changes in ocular and nasal signs and symptoms among air crew in relation to air humidification on intercontinental flights. *Scan J Work Environ Health* 2006; 32:138-44.

AsMA Council Meeting open to all members!

The next Council Meeting will be held on Nov. 15, 2006 at 9:00 a.m. at the Holiday Inn Eisenhower Ave., Alexandria, VA.

Corporate and Sustaining Members of the Aerospace Medical Association

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
Air Canada
Air Line Pilots Association
Aircraft Owners and Pilots Association
AirSep Corporation
American Airlines, Inc.
Autoflug Libelle GmbH
Aviation Medicine Center at UTMB
Aviation Medicine International Inc. (AMI)
Baxter Healthcare Corporation
Bionetics Corporation
Carleton Life Support Systems Inc.
David Clark Company, Inc.
Education Enterprises, Inc.
Environmental Tectonics Corporation
Essilor of America/Varilux
Gentex Corporation
International Federation of Air Line Pilots Associations
International SOS Assistance, Inc.
Japan Airlines
Kelsey-Seybold Clinic
Korean Air Force Safety Center (AFSC)
Lockheed Martin Corporation
Martin-Baker Aircraft Company
Mayo Clinic
MedAire, Inc.
Pilot Medical Solutions
Sanofi-Aventis Pharmaceuticals
South African Airlines
South African Civil Aviation Authority
SpecPro Inc.
Stereo Optical Company, Inc.
United Airlines
United States Aviation Underwriters
Universities Space Research Association (USRA-DSLS)
Harvey W. Watt & Company
Wyle Laboratories, Inc.

AsMA Future Meetings

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

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

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

The Civil Aviation Medical Association's History

By Duane Catterson, M.D.

Although CAMA, as we know it today, correctly observed its 50th anniversary last year, our Association had its origin in the formation of a parent association clear back in 1947. During the years immediately after World War II, many American physicians who had served as military flight surgeons were determined to do what they could to maintain the relationship between aviators and the doctors who looked after their health and fitness to fly.

These physicians believed that the application of meaningful medical standards to the evaluation of candidates for pilot licenses was essential to maintaining a fit and ready pool of aviators to uphold America's leadership position in air power. They saw air power as the key to future military strength and, as the cold war grew ever more confrontational, they considered it essential to keep a healthy cadre of aviators in the growing field of civil aviation who could rapidly transition into military service any time that the need arose.

On November 18, 1947, at a dinner meeting of a group called "The Airline Medical Examiners of Metropolitan New York," a decision was made to form the Airline Medical Examiners Association (AMEA). As time passed, this founding group of 14 physicians evolved and became CAMA. It held an organizational meeting in New York City on February 24, 1948, and its first annual scientific meeting on June 17, 1948 in Toronto, Canada, where a Constitution and By-laws were adopted. A decision was also made to organize regional "Groups" that would hold meetings around the United States between annual national meetings.

There is evidence in early correspondence of some jockeying for position between the secretary-treasurer of the AMEA and his counterpart for the Aero-Medical Association. In February 1948, Dr. Seymour Fiske of the AMEA invited Dr. Thomas Sutherland of the Aero-Medical Association to attend the organizational meeting in New York. He was politely turned down. He then invited Dr. Sutherland to join the AMEA. Dr. Sutherland replied that because he was not a designated airline pilot examiner, he was not eligible to join the organization. In July of 1949, Dr. Fiske wrote a rather forceful letter to Dr. Sutherland stressing that he had an obligation to join the AMEA "in the interest of Civil Aviation Medicine". At that point, Dr. Sutherland submitted his membership application and annual dues of \$5.00.

Beginning with the second annual session, the AMEA met in conjunction with the Aero-Medical Association. By the third annual meeting in 1950, the Airline Medical Examiners Association had grown to 110 members. They had an eastern group, a Texas group, and a mid-western group. Their president, William B. Smith, M.D., decided it was time to publish a periodic news bulletin and appointed Gerald S. Backenstoe, M.D., as edi-

tor. AMEA News Bulletins were published on an irregular schedule several times a year for the remainder of the existence of the AMEA.

In December of 1951, serious consideration was given to merging the AMEA with the Aero-Medical Association as a constituent branch. Dr. Percy Wiltberger, the president of AMDA wrote to General Harry Armstrong, president of the Aero-Medical Association, apologetically reporting that the AMEA executive committee voted by "more than a majority" against applying for branch membership in the senior aviation oriented medical association. The AMEA remained a free standing but closely allied medical body.

The September 1951 issue of the AMEA News Bulletin is especially noteworthy because it reports that Fellowship Certificates were presented to 25 AMEA members to recognize their achievement as practitioners in the "Specialty of Aviation Medicine." The decision by CAMA in 2005 to recognize Fellows was anticipated by 54 years by CAMA's immediate forerunner.

The presentation of 26 more fellowship certificates was announced in the May 1952 News-Bulletin. Later in the same bulletin, an initiative by the Ohio State University to establish a 3-year course in the principles and practice of Aviation Medicine was reported. The editor expressed the hope that this development would lead to the certification of Aviation Medicine as a specialty under the Board of Preventive Medicine. This, of course, is just what happened a few years later.

The Airline Medical Examiners Association was intensely involved throughout 1953 and 1954 with the changes in the structure of government regulation of civil aviation and the emerging new specialty of Aviation Medicine. Many of its members were eligible to be "grandfathered" into the specialty. They supported the embryonic civilian residency program in Aviation Medicine at Ohio State and fought vigorously to retain a meaningful set of medical standards for pilot certification in the face of strong opposition from the Air Transport Association and AOPA. In the midst of all that activity, the executive board of AMEA, during a meeting on November 13, 1954, voted to change the name of the association to the Civil Aviation Medical Association (Domestic and International). Thus, CAMA suddenly appeared on the scene with the dynamic Gerald S. Backenstoe, M.D., at the helm as president and News Bulletin editor. A lot has changed since those early years. The vision of the doctors who originally developed CAMA, the vitality of the current CAMA members and the constancy of the arguments about the need for medical standards to safeguard the public as civil aviation continues to grow, again demonstrate that the more things change, the more they stay the same.

Renaming the Airline Medical Examiners Association to be The Civil Aviation Medical Association (CAMA) took place during very momentous times in civil aviation in this

country. The Civil Aeronautics Administration (CAA) had established a Civil Aeromedical Research Laboratory (CAMRL) on the campus of The Ohio State University Medical School in 1953. Congress was debating the question of reorganizing the CAA with the establishment of a much-strengthened medical component. Aviation medicine became a recognized specialty in February 1953. These events and other political turmoil regarding civil aviation afforded the newly restructured CAMA multiple challenges and issues with which to grapple from the moment it came into being.

CAMA certainly enjoyed significant prestige and national recognition in its early existence. At the first annual banquet, held at the Statler Hotel in Washington, D.C., the dinner speaker was Congressman J. Percy Priest from Tennessee. He concluded his talk by announcing his intention to introduce a bill calling for an Institute of Civil Aviation Medicine. Although the resultant bill later died in committee, it was just one of many initiatives in Congress to reorganize the structure of the CAA. The final event capping off that first banquet was a personal appearance by President Dwight Eisenhower who extended his best wishes to the organization for success in its endeavors to promote safety in civil aviation.

One of the most important and far-reaching actions by the first president of CAMA, Dr. G. S. Backenstoe was to write a lengthy letter to Senator John W. Bricker of Ohio on July 12, 1954. He identified concerns that CAMA had about the existing structure of the CAA and the proposed reorganization of that agency envisioned in a bill that Senator Bricker had introduced. He set forth detailed recommendations for strengthening the medical functions of the CAA, including formation of an office of aviation medicine under the direction of a civil air surgeon. This letter set off a firestorm of negative reactions from the Civil Aeronautics Board, the Airline Pilots Association, the Air Transport Association, and AOPA. Despite those vigorous objections to CAMA's proposals, the recommendations in what is now referred to as the Backenstoe letter became a template for the structure of the Office of the Civil Air Surgeon as it eventually emerged after passage of the Federal Aviation Act in 1958.

The energetic CAMA president, Dr. Backenstoe also put together an ambitious recruiting brochure titled "Civil Aviation Medical Association and YOU!" In this brochure, he advocated forming a national committee of 500 sponsors to help CAMA promote, "The National Good, The Aviation Incentive Movement, The Civilian Pilot Training Program, and The American Legion Bill for AIM (Aviation Incentive Movement)." Dr. Backenstoe cited the association motto, "Pro Bono Publico," stressed the high ethical principles and patriotic dedication expected of CAMA members and urged its readers to be "constructive" members of both The Aero

See CAMA, p. 1207.

CAMA, from p. 1206.

Medical Association and The Civil Aviation Medical Association which he characterized as "the two great organized aviation medical groups." The theme of mutual interests and close interaction between The Aero Medical Association and CAMA was repeatedly sounded in CAMA writings throughout the latter years of the 1950s.

The famous radio personality Arthur Godfrey was the featured dinner speaker at the second annual CAMA Banquet on April 14, 1956 at the Drake Hotel, Chicago. This and subsequent annual meetings were scheduled to occur at the same locations as the Aero Medical Association annual conventions. They immediately preceded the Aero Medical Conventions and careful attention was paid to integrating the CAMA program with the Aero Medical Association Program. CAMA scientific programs were held during the Aero Medical Association convention as joint endeavors.

CAMA produced an expanded brochure in 1956 entitled, "What's Our Line?" It employed a question and answer format to put forth its message. To the first question, "What is the Civil Aviation Medical Association?" The answer was, "The Civil Aviation Medical Association is an established and actively functioning national association of doctors of medicine, of medical examiners for aviation designated by the Civil Aeronautics Administration, and of air-minded citizens, agencies, groups, and corporations. Because of the urgency of the one year old national program, and for greater efficiency, active constituent chapters have been developed in 13 states to date. It operates through its national,

regional and state organizations, and maintains liaison with the government through its Washington office." This succinct paragraph captured the structure of the CAMA of 1956 in a nutshell. The brochure listed 15 objectives of the association. These were quite idealistic, and far-reaching. Themes of patriotism, public service, and promoting civil aviation are repeatedly sounded in the statement of objectives and throughout the remainder of this small-format 25-page pamphlet. The subject of the relationship between CAMA and the Aero Medical Association is addressed as follows: "The Civil Aviation Medical Association was founded because of the need for representation of C. A. M. interests, and proudly recognizes the Aero Medical Association as the parent organization of the aviation medical world in America. Its aim is to work in cooperation and close harmony with the Aero Medical Association in all its efforts. Similarly, the Aero Medical Association cooperates with CAMA through integrated scientific and convention programs, and through joint representation on numerous committees and councils."

A third annual CAMA Convention was held on Saturday, May 4, 1957 at the Shirley Savoy Hotel in Denver, Colorado. The guest of honor that evening was the famed Major Alexander de Seversky, who was then Consultant to Chief of Staff, U.S.A.F. The banquet fee was all of \$6.50 per plate for those who can recall those simpler days.

At some time, not very long after the third CAMA convention, the association merged with the Aero Medical Association and became a constituent branch. The exact date of that merger, and the rationale leading up to it will be the subject of a future Heritage Corner.

ACKNOWLEDGMENTS

Information for this article was taken from AMEA correspondence and newsletters, 1947-1950; AMEA News-Bulletins 1-12; CAMA news bulletins 12, 13, and 14; and the CAMA archives.

REFERENCE

1. Holbrook, HA. Civil Aviation Medicine in the Bureaucracy. Seymour, TX: Banner Publishing Co., 1974.

PRESIDENT'S PAGE, from p. 1201.

(CD or DVD) of the entire collection of Aerospace Medical Association journals: *Journal of Aviation Medicine* (1930-1959), *Aerospace Medicine* (1959-1974); and *Aviation, Space and Environmental Medicine* (1975-present). As a member benefit, the archival product will be offered at \$50 for members and \$150 for nonmembers (\$300 for institutions). The effort of the journal staff in preparation for the annual meeting continues to improve our meetings. Their flexibility to respond to the many ideas and suggestions resulting from the recent Readership Survey continues to evolve the journal product to serve you better; e.g. a new journal cover design to highlight areas of involvement of our members.

It has been a distinct pleasure to work with the many people mentioned above who are involved in the education and research functions of AsMA. I remain awed at the talent and dedication of these individuals and groups who make a positive difference in our organization. Its fun to be involved. Thank you for the opportunity.

Jim Webb

FAA-AME Seminar 2006-2007 Schedule

AME Seminars are offered by the FAA. Abbreviations: N/NP/P = neurology/neuropsychology/psychiatry; AP/HF = aviation physiology/human factors; O/O/E = ophthalmology/otolaryngology/endorocrinology.

December 11-15	Oklahoma City, OK	Basic (1)
Jan. 19-21, 2007	San Diego, CA	N/NP/P (2)
Mar. 5-9, 2007	Oklahoma City, OK	Basic (1)
Mar. 16-18, 2007	Bellevue, WA	Cardio (2)
May 14-17, 2007	New Orleans, LA	AP/HF*
June 11-15, 2007	Oklahoma City, OK	Basic (1)
July 13-15, 2007	Oklahoma City, OK	N/NP/P (2)
Aug. 17-19, 2007	Washington, D.C.	OOE (2)
Sept. 14-16, 2007	Savannah, GA	Cardio (2)

* This is the only FAA seminar for which AsMA takes registrations. For all others, please see below. A 3-1/2 day AME seminar held in conjunction with AsMA's Annual Scientific Meeting. Registration must be made through AsMA. To register or for more information, call 703-739-2240 x 106 or 107. AsMA charges a registration fee to cover their overhead costs. Registrants have full access to the AsMA meeting. CME credit for the FAA seminars is free.

(1) A 4-1/2 day AME seminar focused on preparing physicians to be designated as Aviation Medical Examiners. To sign up or for more information, contact your Regional Flight Surgeon. (To find your Regional Flight Surgeon, visit http://www.faa.gov/licenses_certificates/medical_certification/rfs/index.cfm).

(2) A 2-1/2 day AME theme seminar consisting of 12 hours of AME specific subjects plus 8 hours of subjects related to a designated theme. Registration must be made through the Oklahoma City AME Program staff. Please call Lea Olson at 405-954-4258.

For more information or to register, call the AME Programs office in Oklahoma City at 405-954-4830 or 4258.

Taken from the FAA's web site: www.faa.gov/other_visit/aviation_industry/designees_delegations/designee_types/ame/seminar_schedule/

AsMA Board Certification in Aerospace Physiology:

Board certification in Aerospace Physiology was first offered by the Aerospace Medical Association in 1977, as a result of the efforts of nine past presidents of the Aerospace Physiology Society. The objectives of the certification program are to:

- Encourage the study, improve the practice, and elevate the standards of excellence in Aerospace Physiology;
- Promote the professional stature of the Aerospace Physiology Society within the Aerospace Medical Association;
- Provide an avenue for professional and peer recognition; and
- Serve as a goal which members can strive to attain through dedication, self-study, and personal contributions to the Aerospace Medical Association and the Aerospace Physiology Society.

The examination process begins with eligibility and registration. The exam itself will be presented on Sunday, May 13, 2007, during the first day of the Aerospace Medical Association Annual Scientific Meeting in New Orleans, LA. All those interested in sitting the exam should contact the Certification Committee through Major Julia Sundstrom (530-634-9227; julia.sunstrom@beale.af.mil).

Message from Our President *from Conoly Barker*

Aloha Wing Sisters,

Dianne and her team are hard at work planning an exciting meeting for us in New Orleans. You are going to love our Hospitality/Registration room in the Gallery Ballroom right off the main lobby of the Sheraton Hotel. It is a grand room with floor-to-ceiling windows looking out over historic Canal Street. There will be plenty of room for us to spread out and the best news is that we will have our own restrooms right in the ballroom foyer! Dianne has arranged for our Welcome Reception to be two floors up from our Hospitality room, accessible by escalator, so it will be easy for everyone to find. Again, this will be a beautiful room with a view of Canal Street. Josie is working on putting together some delectable delights for us. For our luncheon on Wednesday, we will be across the street at the top of the Marriott Hotel in their Riverview Restaurant. And what a view it is - looking down on the Mississippi River and the historic French Quarter. Nevonna is arranging a wonderful meal for us there. Lin Beane and Lynn Weiss are busy checking out tour options for us and I'm sure you will be delighted, as there are so many wonderful things to do.

In the meantime, I hope that you are all having a fabulous Autumn and enjoying the delights of the harvest time. Happy Thanksgiving to all of you who celebrate this holiday.

Conoly

Protecting Yourself in the Modern World *By Harriet Hodgson*

The internet and the world of modern communications have brought us the ease, convenience, and enjoyment of sharing our lives and news with friends around the world. But, do you really know who is listening in on your cell phone calls or logging onto your e-mail or instant messaging notes? Are you sure that your computer is secure against hackers? Do you know what identity theft is and how to protect yourself from falling victim? Here are a few simple things you can do to make yourself secure in our digital world.

Identity theft is the fastest growing crime today and all a thief needs is your name, address, date of birth, social security number (in the USA) or a credit card number. With this information, a thief can ruin your credit, drain your bank accounts and generally destroy your reputation. They can target your home, your place of business, and even your personal safety. When using your cell phone in public places, take a moment to see who might be standing next to you and listening to your call. When in public, never order anything over the phone which requires you to give your home address, credit card num-

ber, social security number, or home telephone number. Never give directions to your home or work place - you might be inviting an unwelcome guest.

When using the internet, make sure that your firewall and anti-virus protection are up-to-date and activated. Do not give out personal information to anyone over the internet unless you know with whom you are dealing, and unless you have initiated the contact. Thieves often pose as bank or government representatives to gain access to your personal data. Do not respond to "Phishing" e-mails - hit the "delete" button immediately. Protect your social security number, never use it or your mother's maiden name, your birth date or the last four digits of your social security number, or a similar series of numbers as a password or user id name.

When traveling, minimize the identification information and the number of cards you carry. Take only what you will actually use. Don't carry your social security card, birth certificate, or passport unless absolutely necessary. When typing your PIN number in an ATM or debit machine, cover the screen with your hand to prevent anyone viewing your number, and remember to take the receipt with you. Remember to notify your credit card company that you will be away from home and what your itinerary will be - otherwise you may find that your card may be temporarily frozen.

Your first line of defense against theft - digital or otherwise - is your home. Make sure that your financial records are safe. Never throw financial statements in the trash - shred all documents with personal information on them, including pre-approved credit card offers, insurance forms, or bank or credit card statements. Protect incoming and outgoing mail. Pick it up promptly and deposit it only in secured and sealed post boxes. Do not mail checks at night to be picked up the next day. Make a list of all of your credit cards and bank accounts with customer service phone numbers and keep it in a safe place. When ordering new credit cards in the mail, or when previous ones have expired, make sure the new ones arrive within an appropriate time frame. If not, contact the issuing institution immediately - thieves often send change of address notifications to financial companies in order to receive the new credit cards. Pay attention to billing cycles and follow up if your bills don't arrive when you expect them. Review bank and credit card statements and report any questionable charges. Cancel all credit cards not used in the last 6 months - open credit is an invitation for fraud. Order your credit report at least twice a year and check your credit card status yearly. Dispute any information which seems suspicious. In the USA you can obtain a free credit report at:

www.annualcreditreport.com or by calling 877-322-8228. Other sources of free reports are www.equifax.com at 800-685-1111; www.experian.com at 888-EXPERIAN (398-3742); or www.transunion.com at 800-680-7292. Correct all mistakes on your credit report in writing and send the letters "receipt requested."

Remember, if you are a victim, act immediately. Notify your local police force, your bank, your credit card companies, and the Fraud Units at the credit bureaus.

Protecting Yourself From Identity Theft

Wing members have traveled all over the world. You may be an experienced traveler, but you may not know how to protect yourself from identity theft. Here are some tips.

• Don't give strangers information that could lead them to your bank account, such as "My husband is a doctor."

- Leave your check book and register at home.
- NEVER carry your Social Security number.
- Delete your Social Security number and other important numbers from your laptop or handheld computer.
- Carry two credit cards only.
- Spread out purchases between credit cards. Avoid a high total on one card, which could attract thieves' attention.
- Always have the 800 emergency phone number with you in case your credit card is stolen.
- Get dual signature travelers checks that you and your partner may both use.
- Remove everything personal from your wallet - even your library card.
- Don't use ATMs. If you must use one, cover the card with your hand so it can't be photographed from a distance.
- Memorize your room number.
- Keep credit receipts in a hotel safe.
- Shred documents in a confetti shredder or soak them in soapy water until they turn to pulp, and then discard.
- Don't put anything personal in the trash.
- Deposit outgoing mail in a locked box, not a hotel slot.



Join the Wing!

The Wing of the Aerospace Medical Association was formed in 1952 "to support the specialty of aviation, aerospace, and environmental medicine by facilitating cooperation among its practitioners and by increasing public understanding and appreciation of its importance." A second purpose of the Wing is "to promote sociability among its members and their families." Each year at the scientific meeting, AsMA spouses meet new friends from around the world, sharing in the many cultural experiences and educational opportunities of the host city. 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

NEWS OF CORPORATE MEMBERS

SACAA Becomes Corporate Member of AsMA

The South African Civil Aviation Authority (SACAA) recently became one of the newest Corporate Members of the Aerospace Medical Association (AsMA). The SACAA is committed to providing efficient, effective, and economic aviation safety and security by, among other strategies, ensuring and promoting compliance with regulations, overseeing the functioning and development of the industry, and creating a customer-focused organization. Their motto is "CRACK IT," an acronym for commitment, responsibility, accountability, consistency, knowledge-sharing, integrity, and transparency. The SACAA was established in October 1998 following the enactment of the South African Civil Aviation Authority Act, No.40, in September of the same year. The Act provided for the establishment of a stand-alone authority charged with promoting, regulating, and enforcing civil aviation safety and security. The creation of the SACAA reflected the Government's then priorities of policy development, economic restructuring, addressing social inequalities, and reducing the burden on the general taxpayer by expanding the application of the "user-pays" system. A further motivation in setting up a stand-alone civil aviation regulatory authority was done in line with international trends in the aviation world where more and more states implemented this option.

The roles and responsibilities of the CAA revolve around the nine areas of oversight. The first is airport oversight, which involves the certification of airports and heli-ports and monitoring civil and electrical engineering matters in relation to infrastructure on and around airports. The next, airworthiness oversight, is concerned with ensuring that all aircraft that fly in South African airspace are airworthy to conduct such flights (fit for flight). Certification oversight deals with all certification activities in relation to aircraft products and parts. This includes the granting of permission for new aviation products to be imported into the country. Personnel oversight involves examining, licensing, and training of aviation personnel. Oversight of operations is carried out in terms of monitoring information contained in the operations manuals of every operator to ensure compliance with relevant legislation. Airspace oversight ensures the effective management and provision of air traffic services through the allocation of airspace by the statutory consultative body, the National Airspace Committee (NASCOM). Accidents and incidents investigation, while technically not an area of oversight, is a key activity of the SACAA carried out on behalf of the government. Investigations are conducted to determine the cause of aircraft accidents, and to recommend measures to prevent recurrence. The flight inspection division does not fall under a specific area of oversight. The function of this division is to calibrate the radio navigational aids used by aircraft to ensure accuracy and reliability. The Information Services division provides aeronautical information to the in-

dustry and also meets the information needs of the organization.

The CAA has claimed its position as a regional leader in the aviation regulatory sector in the Southern African Development Community (SADC). The CAA has hosted dozens of regional meetings and conferences since 1994 and is in the driving seat of regional efforts to harmonize aviation regulations in the region, and improving the level of aviation surveillance in member states. Also, in 2003, South Africa was elected to be a member of the International Civil Aviation Organisation (ICAO) council, a move that sees the country participating at the highest forum with regards to aviation matters.

Baxter and AABB Sponsor Second Annual Blood Collectors Week

During September, more than 220 blood collection centers celebrated the Second Annual Blood Collectors Week sponsored by Baxter Healthcare Corporation and AABB. That week acknowledged the critical role blood collectors—including phlebotomists, apheresis operators, and other staff members—serve in helping to ensure blood is available to patients in need. During the week-long celebration, community members were encouraged to show their support for those involved with this honorable profession by making a blood donation and helping blood collectors meet local blood supply needs.

About Baxter

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

Int'l SOS Conducts First Direct China-Taiwan Mass Medical Evac

International SOS recently organized the first-ever direct mass-chartered flight to fly 14 Taiwanese tourists injured in a bus crash in Northeast China directly home. The tourists arrived in Taipei's Taoyuan Airport on a medicalized Airbus 320 converted to accommodate stretchers and medical equipment and escorted by six doctors, eight nurses, and two operations specialists from International SOS Beijing, Hong Kong, and Taipei alarm centers. This landmark case marks the second direct air charter across the Taiwan Straits since the signing of an agreement in June 2006 between Taiwan and China allowing direct air access by chartered flights for emergency medical rescue.

The 14 patients were part of a tour group of 20 Taiwanese nationals involved in a bus crash in September, when their tour bus overturned and plunged into a river en route from

Heilongjiang Province to Jilin. Upon notification of the accident, International SOS immediately dispatched a doctor and operations specialist to Yanji, Northeastern Jilin Province, where the victims were admitted into local hospitals. Working with the local treating doctors, International SOS subsequently evacuated three seriously injured patients on air ambulances to Beijing for further treatment, escorted by International SOS medical staff.

Four days earlier, International SOS had also carried out the first direct cross-Straits medical evacuation of a 71-year-old Taiwanese man from Dongguan. That was the first time since 1949 that any flight of this nature has been possible. International SOS launched its Cross-Straits Emergency Medical Rescue Service in June.

About International SOS

International SOS has global operations in over 65 countries, spanning 5 continents. The company provides clients with a comprehensive portfolio of medical and security services to ensure that people travelling and working internationally have access to immediate help. International SOS' services range from 24-hour medical advice, referrals to qualified doctors and hospitals, and provision of emergency medical and security evacuations when there is a critical illness, accident, or civil unrest.

Sanofi Pasteur Broadens Pandemic Preparedness

Sanofi Pasteur, a subsidiary of the Sanofi-Aventis Group, has generated the first clinical trial lot of a new generation of H7N1 pandemic vaccine within the framework of FLUPAN, a collaborative research project funded by the European Commission. This trial will broaden Sanofi Pasteur's pandemic preparedness program initiated with the development of H5N1 vaccines.

The H7N1 vaccine was produced at Sanofi Pasteur's Marcy l'Etoile facility in France using Crucell's PER.C6® cell-based technology, allowing an alternative production process expected to offer advantages over traditional manufacturing methods. Sanofi Pasteur selected PER.C6® cells for their high susceptibility to influenza viruses, thereby making the production of large amounts of influenza vaccine feasible for both pandemic and seasonal strains.

This phase I clinical trial, initiated recently in Bergen, Norway, is the first to assess the safety and ability to generate an immune response of a split, inactivated prototype pandemic H7N1 vaccine produced on cells.

About Sanofi-Aventis

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

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Taylor Retires; Roudebush Becomes USAF Surgeon General



Taylor



Roudebush

Lt. Gen. George Peach Taylor, Jr., USAF (Ret.), MC, former U.S. Air Force Surgeon General, retired from the U.S. Air Force in August during ceremonies held at Bolling AFB, DC, after more than 30 years of service. Born in Birmingham, AL, Dr. Taylor graduated in 1975 with B.A. degrees in physics and the Russian language from Rice University in Houston, TX. In that same year, he was commissioned a second lieutenant in the Air Force Reserves. He earned his M.D. in 1978 from Baylor College of Medicine, also in Houston, and after an internship, entered active duty as a captain in 1979. He attended Harvard School of Public Health in Boston, MA, receiving his M.P.H. in 1984, and then served a 1-year residency at the U.S. Air Force School of Aerospace Medicine at Brooks AFB, TX. From 1992 to 1993, he attended the National War College in Fort McNair, DC.

His military career included such assignments as: Chief of Flight Medicine, U.S. Air Force Clinic, and Squadron Flight Surgeon at the 67th Tactical Fighter Squadron at Kadena AB, Japan; Chief of Aerospace Medicine, Detachment 3, Air Force Flight Test Center, in Henderson, NV; Chief of Aerospace Medicine and Commander of Air Transportable Hospital in Spain; Chief of Aerospace Medicine, U.S. Air Force Hospital, Air Force Flight Test Center, CA; Commander and Director of Base Medical Services in Utah; Chief, Aerospace Medicine Division and later Deputy Director, Air Force Medical Operations Agency in DC; Associate Director and later Director of Medical Programs and Resources, Office of the Surgeon General in DC; and Command Surgeon of U.S. Air Forces in Europe at Ramstein AB, Germany, and later of HQ Air Combat Command at Langley AFB, VA; as well as his assignments in the Surgeon General's Office.

Dr. Taylor received many honors during his military service, including the

Distinguished Service medal with oak leaf cluster; Legion of Merit with oak leaf cluster; Bronze Star medal; Air Force Commendation medal; Air Force Recognition Ribbon as USAF Flight Surgeon of the Year in 1980; the Malcolm C. Grow Award from the Society of U.S. Air Force Flight Surgeons in 1981; and the Gold Cross of Honor of the Bundeswehr (Germany). He is a Fellow and former Vice President of the Aerospace Medical Association.

In 2002, Dr. Taylor became the Assistant Surgeon General for Expeditionary Operations, Science and Technology, Office of the Surgeon General at Bolling AFB, DC. Later that year he was promoted to Special Assistant to the Surgeon General of the U.S. Air Force, and then became the Surgeon General of the Air Force, a position he stepped down from in October. The new Surgeon General of the Air Force is Lt. Gen. James G. Roudebush, another Fellow of the Aerospace Medical Association.

Lt. Gen. Roudebush, a native of Gering, NE, graduated from the University of Nebraska in 1971 with a Bachelor of Medicine. He went on to earn his M.D. from the University of Nebraska College of Medicine in 1975. He served a Family Practice Residency at Wright-Patterson Medical Center, Wright-Patterson AFB, OH, from 1975 to 1978. He completed a residency in Aerospace Medicine at Brooks AFB, TX, in 1984. He commanded a wing clinic and wing hospital and then became Deputy Commander of the Air Force Materiel Command Human Systems Center. After that, he served as as Command Surgeon for U.S. Central Command, then for the Pacific Air Forces. Prior to assuming his current position, he was Command Surgeon for U.S. Transportation Command and headquarters Air Mobility Command at Scott AFB, IL.

News of Members

Col. Joseph B. Anderson, USAF, MC, FS, formerly the Chief, Physical Standards Policy Development at Bolling AFB, DC, has been reassigned and is now serving as Commander, 30th Medical Group, Vandenberg AFB, VA. He was promoted to Colonel in May.

Fanancy Anzalone, CAPT, USN(Ret), Lighthouse Point, FL, who is Miami Area Medical Director from American Airlines, has been selected as the Alumni of the Year for Southeastern Louisiana University in Hammond, LA. He graduated in 1977 with a BS in Biology and was accepted into LSU Medical School to start that fall. He was also the guest of honor at the homecoming banquet in October and the special guest for the homecoming parade and football game.

Mike Brisson, WEMT, a Wilderness Emergency Medical Technician, is now the Assistant Chief of the Department of EMS,

Embry-Riddle Aeronautical University, Daytona Beach, FL.

Col. James A. Capps, Jr., USAF (Ret.), Conway, AR, retired in January from the Air Force and has received the Legion of Merit.

Dwight C. Fulton, CAPT, MC, USN, formerly Senior Medical Officer at Naval Hospital, Oak Harbor, WA, has been transferred and is now serving as Fleet Surgeon, Military Sealift Command, Washington Navy Yard, Washington, DC.

Col. Tim L. Pendergrass, USAF, MC, SFS, who was the Deputy Commander, 52nd Medical Group (USAFE) at Spangdahlem Air Base, Germany, is now the Commander, 436th Medical Group (AMC), at Dover AFB, DE.

Jeffrey Sventek, Col., USAF(Ret.), San Antonio, TX, retired after more than 31 years of service. He finished my career as the Chief, Biomedical Sciences Corps for the Air Force and Deputy Command Surgeon, Air Force Materiel Command, Wright-Patterson AFB, OH. Lt Gen George Peach Taylor, Jr., former Air Force Surgeon General, officiated his retirement ceremony and presented him with the Legion of Merit (First Oak Leaf Cluster). He has since returned to San Antonio, TX.

Thomas Walker, Ph.D., completed his Ph.D. degree at the University of New Mexico in May. He is now a Research Physiologist at the Air Force Research Laboratory, Human Effectiveness Directorate, Biosciences and Protection Division, Brooks City-Base, TX. His research emphasizes maximizing performance in austere environments during sustained wakefulness, under +Gz forces, or in hypobaric environments.

New Members

Al-Kurdi, Firas, Dr., Amman, Jordan
 Al-Naimi, Abdul Rahman A., M.D., MPH, Houston, TX
 Bates, Christopher W., Capt., USAF, MC, Helotes, TX
 Carey, David, M.B.,B.S., Waderbridge, UK
 Carson, Simon, M.B.,Ch.B., Christchurch, New Zealand
 Chough, Natacha, B.S., Ann Arbor, MI
 Edmar J. A. Santos, M.D.,Ph.D., Rio de Janeiro, Brazil
 Grant, Robert S., D.O., Galveston, TX
 Lee, Chi-Lien, Kaohsiung, Taiwan
 Perez, Rolando, Galveston, TX
 Pounds, Julia, Ph.D., Mustang, OK
 Shah, Ronak, D.O., M.B.A., Edison, NJ
 Walman, Noah S., B.S., Birmingham, MI

Polly Vacher, the 52nd Annual Bauer Lecturer at the 2006 AsMA Annual Meeting, has released her book, *Wings Around the World*. Published by Grub Street Publishing, it is now for sale through her website: www.worldwings.org. All author royalties/proceeds will go to 'Flying Scholarships for the Disabled' (FSD).

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PATIENT SAFETY CRM

The Department of Veterans Affairs National Center for Patient Safety (NCPS) is seeking strong candidates (physicians, nurses, or other appropriate clinical or operational backgrounds) to work in its Ann Arbor, Michigan office as part of its new Medical Team Training (MTT) Program.

The MTT Program is designed to improve outcomes of patient care and staff job satisfaction by implementing Crew Resource Management communication tools from aviation with briefings and debriefings in the clinical workplace. The MTT Program is provided to VA Medical Centers nationwide to improve patient care by enhancing communication in the delivery of care by healthcare professionals.

NCPS is an internationally recognized center that develops and implements patient safety policies, tools, education, and information systems throughout the VA healthcare system. (See www.patientsafety.gov) Salary commensurate with education and experience. Excellent benefits package. Relocation assistance available. Frequent travel is required (9-12 nights/month). EOE. To express interest, mail CV or resume with cover letter to: Chief AO, VA NCPS, PO Box 486, Ann Arbor, MI 48106-0486 or e-mail to: Jeffrey.Heget@va.gov.

Obituary Listings

William C. Marett

AsMA has learned that Col. William C. Marett, USAF (Ret.), MC, died in April. He was an Emeritus Member and a Fellow of the Association. Born in 1917 in Seneca, SC, he graduated with a B.S. from The Citadel in Charleston, SC, in 1938. He earned his M.D. in 1942 from the Medical College of South Carolina in Charleston. He served in the military for many years, receiving many honors, including the World War II Victory medal, the United Nations Service medal, and the Longevity Award. In addition to being a member of AsMA, he was also a member of the American Medical Association, the American College of Preventive Medicine, the Society of Air Force Flight Surgeons, among others. Those who knew him will miss his wry sense of humor.

Carol McCleary

Carol McCleary, Col., USAF (Ret.), an Emeritus Member and Fellow of AsMA died in July. Born in 1932 in Salem, OR, Col. McCleary trained at Good Samaritan Hospital School of Nursing, from which she graduated in 1955 with an R.N., and held a teaching position there for several years. She graduated with a B.S. in 1958 from the University of Oregon. During her lifetime, she was Secretary, EACT Section, Oregon Nurses Association; Advisor Student Nurses of Oregon; a member of various Oregon nurses associations and the Oregon League for Nursing Committee Chairmanships; Nurse

Vice Chairman of the Disaster Committee of Multuomah Co.; a member of the American Red Cross; and Vice President of Good Samaritan Hospital Alumni Association. She held the Air Force Commendation medal and was in *Who's Who of American Women*.

In Memoriam

Peter King

Abridged from Brendan Adams, M.D.

The Aviation Medicine World has lost one of its great contributors with the passing on May 25, 2006 of Paul (Peter) Alan Hastings



King, M.B., B.S.(LON), F.R.C.P.(C), F.A.C.C.E.M, (S/L RCAF Air/P Med/M.O. Retd), author, researcher and clinician. It was he who discovered and named the "Giant Hand Phenomenon." My favourite memory is of coaxing the self-

effacing Peter to stand before the classes I taught on disorientation, and recount his discovery. It was always the high point of the lecture.

The following is abridged from the obituary supplied by his family:

After graduating from Saint Bartholomew's Hospital in London in 1953, Peter returned to Canada to join the RCAF to serve his compulsory military. After completing his Officer's training course he was transferred to RCAF Station Lachine, home of the medium and long range 426 "Thunderbird Squadron". As a Medical Officer there, he flew over 700 hours on missions documenting the affects on pilots of fatigue, noise levels, international health problems and stress. His recommendations initiated improvements to the safety and comfort of long range aircrew. In 1955, he assumed responsibility for the base hospital and Air evacuation for the Eastern Arctic Region. He went on to become SOMS for Air Transport Command and responsible for all ATC bases in the Arctic and Europe.

During the Suez Crisis, he served in the first UN peacekeeping force where he set up the hospital for peacekeeping forces in Naples then entered the Suez with the advance party

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of Canadian forces and set up an air evacuation chain for the UN.

Peter was accepted into the pilot selection program and upon his return from the Suez he was able to pursue his passion for flying. On the 6th of December 1959, while flying in a snow storm out of Val D'or, Quebec, Peter became disorientated. His AE on that flight, Claude Fortin, was able to convince him to disregard his disorientation and trust his instruments. He was the first Medical Officer pilot to experience and describe the "Giant Hand" phenomenon. From an aviation medical perspective Peter had learned much from his flying experiences. He was posted to the School of Aviation Medicine where with the aid of the head instructor Don MacNamara set up and taught the first Flight Surgeon's Course. He convinced the University of Toronto to have the Flight Surgeon's Course accepted at the School of Hygiene. He represented the RCAF at many international conferences and was published in several journals.

In 1962, he returned to medicine studying for his Fellowship in Internal Medicine at the University of Toronto. In 1966, he sat and passed his F.R.C.P. and C.R.C.P. exams and went on to become a cardiologist.

While Director of the Coronary Intensive Care Unit at Sunnybrook University Hospital he designed and had built Canada's first coronary intensive care unit; an innovative circular design which would be copied by hospitals in Canada and abroad. In 1969, he became a Fellow of the American College of Cardiology and in 1989 a Fellow Emeritus with the American College of Cardiology.

During his career he was a consultant for Air Canada, CPAir, PWA and The Canadian Airline Pilot's Association. He later joined Health Canada's Civil Aviation Medicine as a consultant cardiologist in Ottawa. Peter authored the "Civil Aviation Handbook for Examiners" and the Government publication, "The Pilot Guide to Human Factors." Peter retired from the Civil Service at the age of 65.

Nominate a Colleague!!!

December 15 is the deadline for receiving **Nominations for Awards** to be presented at the 2007 Annual Scientific Meeting in New Orleans, LA. Nominations can be made by any member of AsMA. The nomination must be submitted via e-mail or online through the AsMA website under Committees and in the Members Home Section:

<http://www.asma.org/members/awards/awardnomination.php>. The completed form should be e-mailed (NO Faxes, Please!) to the Awards Committee Chair, Andy Bellenkes: andrew.bellenkes@usafa.af.mil

Attachments or biographical material will be retained in Association files.

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