

President's Page

Don't you just hate mixed messages?

As I write this, two more of the major U.S. airlines (Delta and Northwest) have filed for Chapter 11 bankruptcy protection, the Space Shuttle programme is again delayed, and for the first time AsMA membership has dropped below 3,000. Yet this gloomy picture is contradicted in the recently published survey by the Valuation and Strategy group of PricewaterhouseCoopers which tells us that the aerospace downturn is over, there are plans for Sir Richard Branson's Virgin Galactic and SpaceShipOne (SS1) developer Scaled Composites to form a joint venture to manufacture spacecraft for suborbital flight operators, and NASA's Small Aircraft Transportation System (SATS) research project to free the skies is making great progress.

The real message is that the aerospace world is changing, and we in AsMA have to respond to this change. But actually that is not what we must do – to survive and grow we must anticipate change and be proactive rather than responsive. As I have said previously, membership of AsMA has to be indispensable to anybody associated with the biological or psychological aspects of flight.

Returning to the PricewaterhouseCoopers report, in 2004 revenues increased by about 13% and profits by around 22% for the top 100 aerospace companies compared with 2003. With defence sales remaining strong, it is the recovery in commercial aviation that is driving the improvement. How does that fit with the bankrupt major U.S. airlines? If they are to survive, these companies have no option but to change their business model, to match the thriving no-frills carriers such as SouthWest and Ryanair. The Irish airline Aer



Michael Bagshaw, M.B., B.Ch.

Lingus went from near bankruptcy to a profit of €107 million in just 3 years by changing from a bureaucratic old-fashioned company to an efficient customer-focused organisation. British Airways had achieved something similar in the 1980s.

And therein lies the lesson for AsMA. We have got to meet the needs of the membership (the 'customer'), but we don't know what your needs are unless you tell us. I keep returning to the theme of communication. We are working to streamline communication within the organisation, but it has to be a two-way message. YOU are the Association - the Executive Director, the Home Office team and the Executive Committee and Council are working on YOUR behalf, and they really do need to understand your needs. We are developing a questionnaire email survey, but you don't have to wait for that.

Please, let us know what your Association can do for you.

Medical News

Executive Director's Column



Rayman

ORLANDO 2006

It never ceases to amaze me how fast the year goes by. It seems like we have just returned from Kansas City, or for that matter even from Alaska, and we are already beginning to finalize plans for our 2006 meeting scheduled for May 14 - 18, in Orlando, FL.

A site visit was made by our planning team including also our President, Dr. Michael Bagshaw. I can speak for the entire team by telling you that we were very happy with what we saw. The venue for the meeting will be the Caribe Royale Hotel, which has a number of towers with the Hotel Convention Center located in the middle. For this meeting we will all be under one roof, which facilitates planning and, I believe, makes the meeting a bit more enjoyable for all attendees.

The sleeping rooms that we saw looked very comfortable and modern with easy access to the hotel facilities, including the Convention Center and large swimming pool--in fact, there are two swimming pools. The Convention Center is one of the best that I have ever seen with very spacious hallways and lecture rooms. Everything will be concentrated in one area including the scientific sessions, the poster area, the exhibit hall, and practically all meal functions, including luncheons and evening banquets.

The airport is approximately 20 minutes away by shuttle and the charge roundtrip is \$29.00. Of course, a taxi would be considerably more. In addition, there is free parking at the hotel and a free fitness center.

ASMA MENTORSHIP PROGRAM

AsMA recently established a new Mentorship Program for our younger members. We encourage you to go to our website (www.asma.org) and click on "Members Login." Once at the Member Home page, click on Mentorship Program. You can sign up as a Mentor or Mentee, or view Participating Mentors--those who have already volunteered to serve.

Please take advantage of the great new feature!

Although we are really there for the scientific sessions, we would encourage you to take advantage of the sites in and around Orlando. There are the 5 Disney theme parks, Universal Studios, Epcott Center, and many good restaurants. The Kennedy Space Center, with its outstanding museum, is only 40 minutes away. Arrangements are being made for our members to purchase Disney World tickets at a reduced rate.

The hotel provides free transportation on a scheduled basis roundtrip to the five Disney Theme Parks. Although the closest large shopping center is a few miles away, arrangements can be made to be picked up and returned to the hotel.

Not much can be said about the Scientific Program, yet, because the abstract submission deadline was October 28, with the Program Committee performing its peer review in mid-November.

More information will be forthcoming on our website (asma.org) and in my customary letter which goes out in mid January. In the meanwhile, if you have any questions, don't hesitate to call me.

Be sure to plan to attend the Orlando meeting and, by all means, bring the kids. I hope to see you then.

Associate Fellows-Class of 2006

The following AsMA members achieved Associate Fellowship status and were approved by the Executive Committee during their meeting in September 2005:

V. John Affleck, B.Sc.,MBBS, D.Av.Med.
Lt. Col. John R. Andrus, USAF, MC
Arthur A. Arnold, Jr., M.D.
Adrian B. Baker, MBChB,MSc,MFOM
John B. Charles, Ph.D., B.S.
Kevin P. Connolly, M.D.,M.P.H.
Jeanine M. Czech, M.D.
Lt. Col. Paul S. Doan, USAF, MC
Matthew F. Dumstorf, M.D.
Leslie L. Eaton, M.S.
Capt. Rodney A. Friend, USAF, MC
Lt.Col. John A. Gibbons, USAF, MC
Frank R. Glatz, M.D.
Lt. Col. Marc V. Goldhagen, USAF, MC

NOTICES

November's History Column is online ONLY!

December 15 is Deadline for Award Nominations!

Go to the AsMA website for details!

LCDR Matthew W. Hebert, MSC, USNR
Maj. Alden D. Hilton, USAAF, MC
Col. Robert Johnson, USAF, MC
Norbert O. Kraft, M.D.
Brian J. Lisher, M.B.B.S.
LCDR Humphrey Minx, MSC, USN
Maj. Paul H. Nelson, USAF, MC
Felix G. Porras, M.D.
Col. Brian H. Reed, USAF, MC
Daniel W. Repperger, Ph.D.
Adrian Smith, MBMS,DAvMed
Maj. Pamela D. Smith, USAF, MC
Lt.Col. Wayne K. Sumpter, USAF, MC
Maj. Anthony P. Tvaryanas, USAF, MC
Nathaniel E. Villaire
Maj. Norman S. West, USAF, BSC
Maj. Johann S. Westphall, USAF, MC
Maj. Andrew D. Woodrow, USAF, BSC

AsMA Future Meetings

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

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

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

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

CLINICAL AVIATION MEDICINE Complimentary Copies

Clinical Aviation Medicine, 3rd ed. (Rayman, Hastings, Kruyer, Levy) has been available at no charge since 2000 for all AsMA members. If you have not received your copy, please contact Ms. Gloria Carter (gcarter@asma.org) or Ms. Sheryl Kildall (skildall@asma.org) in our Membership Department.

Where's the Proof?

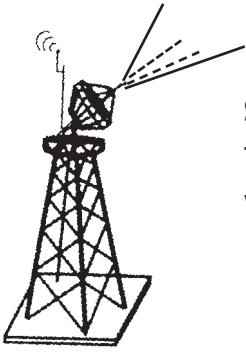
Evidence Based Medical Certification: an International Challenge

CAMA Sunday, Orlando Florida, with AsMA

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

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

Don't miss it!



Science & Technology Watch

Keeping You Informed Of The Latest Advances In Science And Technology

Coordinating large scale operations involving different organizations and countries requires tools and techniques to assess and understand vast amounts of information. Decisions must be made quickly, correctly, and communicated to distant sites without losing a valid understanding of "the big picture," i.e. maintaining good situational awareness. This month's edition of the Watch describes a U.S. Office of Naval Research sponsored USN THIRD Fleet program to evaluate technologies to aid in this effort.

The THIRD Fleet and CORTEX

*Estrella M. Forster, Ph.D.
Former Science Advisor THIRD Fleet
San Diego, CA*

The United States Navy divides responsibility for the world's oceans into five numbered Fleets. Commander THIRD Fleet (C3F) Area of Responsibility (AOR) encompasses over 50 million square miles of sea area, from the North Pole to the South Pole; from 92° W to the International Date Line. THIRD Fleet's assets include 72 naval ships, 32 Submarines, 5 Aircraft Carriers, 21 Maritime Patrol and Reconnaissance Aircraft, and over 35,000 personnel. A major percentage of the overall U.S. trade flows through THIRD Fleet's AOR, making it critically important to the economic health of the United States and friendly nations throughout the Pacific region. THIRD Fleet's responsibilities are: direct Fleet operations, train deploying forces, promote theater engagement, and explore new technologies to enhance naval operations.

THIRD Fleet is responsible for the oversight of all Fleet operations in the Eastern Pacific region. This mission includes continuous monitoring in the defense of the western sea approaches to the United States including Indications & Warnings Watch, Detection & Tracking of Foreign Vehicles, and Sea-Borne Counter Terrorism. THIRD Fleet is also the Humanitarian Assistance / Disaster Relief Coordinator within its AOR and is capable of conducting prompt and sustained combat operations at sea to carry out the U.S. Pacific Fleet mission.

THIRD Fleet is also the Operational Agent for Sea Shield in support of the Chief of Naval Operation's Sea Power 21 (SP21) strategy. Sea Shield entails the development of naval capabilities related to homeland defense, sea control, assured access, and projecting defense overland. By doing so, it reassures allies, strengthens deterrence, and

protects the joint force. It protects our national interests with layered global defensive power based on control of the seas, forward presence, and networked intelligence. It uses these strengths to "enhance homeland defense, assure access to contested littorals, and project defensive power deep inland" (3).

THIRD Fleet trains naval forces so that they are combat-ready, principally in preparation for deployment to the THIRD, FIFTH, and SEVENTH Fleets' AOR. This training is accomplished through a series of exercises including events with allied naval units. Training takes place in a regimented approach and culminates in a certification by the Commander, which signifies the strike group and its members are prepared for deployment.

THIRD Fleet is also responsible for the Navy's theater engagement policy in the Eastern Pacific and regularly interacts with forces from other Pacific nations. C3F staff includes international military service members who facilitate collaboration with U.S. coalition partners. "By training together in peacetime, nations build confidence in one another's capabilities, which enable effective coalition operations when demanded by real-world events" (C3F).

THIRD Fleet promotes the Navy's transformation concepts by partnering with and encouraging academia, industry, and government laboratories to develop and field innovative concepts and technologies for demonstration and evaluation through Sea Trial, one of the components of SP21. Sea Trial is "... a continual process of concept and technology development through focused war games, experiments, and exercises. It strengthens the Navy's culture of innovation and accelerates the delivery of enhanced capabilities to the Fleet" (2,3). Under this role, THIRD Fleet facilitates the integration of mature Science and Technology (S&T) products onboard Fleet assets.

In executing these Command and Control operations, decision-makers are exposed to massive quantities of data. Current-generation information systems and displays are often not adequate for conveying information - especially during high workload, uncertain, ambiguous, and time compressed situations. Therefore, improvements are needed in display systems, information management tools, and human-computer interfaces (HCI). Improved systems must support error-free decision processes, improve situation awareness, improve team interactions, and buy time for the team to recognize critical events (6,7). These issues are not unique to combat operations, but apply to any decision-making processes, including those of interest to the aerospace medicine and human factors communities, e.g., threat/emergency response, telemedicine, bioinformatics, group/team behavior, collaborative processes, ergonomics, human performance, and HCI. Demonstrations such as Strong Angel have clearly demonstrated the critical role medical informatics plays when military and humanitarian organizations interact during emergency situations (1).

The Collaborative Operations & Responsive Technology Experimentation (CORTEX) program was formulated to address these issues. CORTEX is a Command, Control, and Collaboration Center conceived as an RDT&E effort by the Office of Naval

Research (ONR) for incorporation into THIRD Fleet. The name "CORTEX" refers to the cerebral cortex, where complex processing of information takes place. It implies cognition and understanding. CORTEX signifies a reconfigurable environment that supports Collaborative activities, an Operational construct Responsive to the voice of the Fleet/Force, Technology advances pertinent to the Fleet/Force's mission, and Experimentation in support of SP21. CORTEX is the integration of over 100 off-the-shelf, prototype, and program-of-record technologies. The facility is composed of three sections: a War Room, an Information Center, and a Crisis Action Center. CORTEX was formulated to address five prioritized, not mutually exclusive objectives: Command and Control; Innovation & Experimentation; Collaboration; Training; and Universal Situational Understanding. CORTEX was conceived to offer an operational environment that a) enforces the continuous improvement of technologies and processes, b) encourages a collaborative approach to its activities, and c) demands the rigorous assessment of S&T products prior to their deployment to the Fleet.

The key functional aspect of CORTEX is improving Situational Awareness (SA). There are several definitions of SA, the most prevalent is that given by Endsley (5) as "the perception of the elements in the environment within a volume of space and time, the comprehension of their meaning, the projection of their status into the near future, and the prediction of how various actions will affect the fulfillment of one's goals." CORTEX is designed with a systems architecture that enables customized user applications, collaborative activities, and secure/consistent multi-level/user access from anywhere, at any time. Indeed, CORTEX's goal in this matter was not only to discover the common, single, integrated, operational air/surface/subsurface/ picture but also "Drive-By SA" - as in the ability to "eye-ball" that picture and realize comprehensive understanding at a one glance and in concert with others in local and remote audiences. Towards this end, CORTEX's baseline is the Space and Naval Warfare Systems (SPAWAR) Composeable FORCenet (CFn) architecture. CFn is a "composeable" framework that enables the discovery and utilization of web-based services as well as to "plug and play" new hardware and software. CFn permits a user to migrate seamlessly across geo-spatial, functional, and temporal dimensions (8).

CORTEX supports the invention, prototyping, demonstration, and testing of new concepts generated by the Naval Research Enterprise (NRE) and of specific value to the Fleet/Force including issues concerning all elements of Command, Control, Computers, Communications, and Intelligence (C4I). This objective encourages activities in concert with other military services, government and battle laboratories, industry, civil authorities, and academia, including linkages with modeling and simulation sites. For example, CORTEX supported the 2005 Coalition Warrior Interoperability Demonstration (CWID). CWID is a Chairman of the Joint Chiefs of Staff annual event featuring Interoperability Trials. "The demonstration

See SCI-TECH, p. 1094

From SCI-TECH, p. 1093

builds a temporary global network over which cutting edge communication technologies interact to support a scripted scenario; technologies are evaluated for utility, interoperability with existing and other new systems, and security" (4). Finally, CORTEX advances joint, interoperable, and network-centric issues in accordance with SP21 FORCENet; "an overarching effort to integrate warriors, sensors, networks, command and control, platforms, and weapons into a fully netted, combat force" (3).

Disaster relief efforts (e.g., 9/11, the tsunami in SE Asia, and Hurricane Katrina) depend on seamless, continuous, and efficient communications among collaborating organizations, military and otherwise. The study of human interaction through C4I technology is essential in defining roles and leadership guidelines as the "netted force" develops in concert with civilian and coalition partners. CORTEX offers a platform to examine the science and technology developments that enable these relationships and business rules among people, groups, societies, and nations. Indeed, these relationships form the fabric of our status in the nation and the world. Global access and understanding through science and technology will enhance our relationship with the world community and ultimately aid Homeland Defense and Security.

REFERENCES

1. Carr DF. Promise Unfilled: Case 165, Strong Angel, a dissection. *Baseline Magazine* 2005;1-32.
2. CFFCINST 3900.1. USN sea trial instruction. Retrieved September 2005 from <http://www.nwdc.navy.mil/STIMS/documents/CFFCSeaTrialInst.pdf>.
3. Clark V. Sea Power 21: Projecting decisive joint capabilities. *Naval Institute Proceedings Magazine* October 2002. Retrieved September 2005 from <http://www.chinfo.navy.mil/navpalib/cno/proceedings.html>.
4. Coalition Warrior Interoperability Demonstration (CWID) 2005 Guidebook Instruction. Retrieved September 2005 from <http://www.cwid.js.mil>.
5. Endsley M. Toward a theory of situation awareness in dynamic systems. *Hum Factors* 1995; 37:32-64.
6. Liebhaber M, Kobus DA. An overview of cognitive task analysis: a method for identifying and quantifying user needs for a particular task. San Diego, CA: Pacific Science and Engineering Group; 2002.
7. Moore RA, Averett MG. Identifying and addressing user needs: a preliminary report on the command and control requirements for CJTF staff. Proceedings of the Command and Control Research and Technology Symposium; 1999 June 29-July 1; Newport, RI: Naval War College; 1999.
8. Smith R. Composeable FORCENet. Proceedings of the SPAWAR/NDIA Industry Conference; 2004 Oct; San Diego, CA.

The AsMA Science and Technology Committee provide this Science and Technology Watch Column as a forum to introduce and discuss a variety of topics involving all aspects of civil and military aerospace medicine. The Watch

can accommodate up to three columns of text, which may include a figure or picture to illustrate your concept.

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

Fourth Symposium of the Greek Aerospace Medical Association (an AsMA affiliate): Short Report

by Mary Anne Frey, Ph.D.

The Fourth Symposium of the Greek Aerospace Medical Association was held on the Island of Oinousses, September 1-4, 2005. The organizing committee was chaired by Dr. Chrysoula Kourtidou-Papadeli, President of the Greek Aerospace Medical Association, Chair of the International Committee of the Space Medicine Branch, and graduate of the Wright State University Aerospace Program. It was hosted by Mayor Evangelos Angelakos and other residents and facilities of the island.

Both aviation and space medicine were addressed, and the symposium provided opportunities for scientific interaction among the participants as well as a full day of formal presentations. Dr. Peter Diamandis, Chairman and CEO, Zero-gravity Corporation, described his vision for "Humans in Space" in the Keynote Address. Among the topics and presenters of the formal presentations were the following.

Panel I

Dr. Valery Polyakov, Cosmonaut: The Bio-medical facility of the manned flight to Mars
Dr. Jean Michel Contant, Secretary General IAA: International Academy of Astronautics: Role in space medical research
Dr. Didier Schmitt, Head, Life Science Unit, ESA: ESA life science program
Dr. Daglis from the General Secretary of R&D, Greek Ministry of Development: Greece joins ESA - Opportunities for medical space research
Lazaros Ch. Papadellis, Judge: Aerospace law and legal problems in space

Panel II

Dr. Rupert Gerzer, Director, German Aerospace Center, Institute of Aerospace Medicine: Telemedicine applications
Dr. Panagiotis Bamidis, Aristotle University: Greek tele-health care

Panel III

Dr. Jorg Siedenburger, LSST(M), JAA: HIV infection in the European pilot population
Dr. Robert Hunter, U.K. Civil Aviation Authority: Aeromedical Centre in U.K.
Dr. Konstantinos Kafkalidis, Chief Medical Examiner of the Hellenic Civil Aviation Authorities: Application of FCL3 in Greece

Panel IV

Dr. Mary Anne Frey, Professor, Wright State University and University of Houston (NASA JSC): Careers in Aerospace Medicine
Dr. Joan Vernikos, Former Director of NASA Life Sciences: Space medical research applications and benefits
Dr. Antonios Kyparos, University of Thessaly and Aristotle University: Dr. Kyparos reported on muscle research conducted while he was a post-doctoral fellow at the University of Houston (NASA JSC)

Dr. Chrysoula Kourtidou-Papadeli, Director, Aeromedical Center "IASI" in Thessaloniki: Hypergravity, special applications in ageing and children with disabilities

Additional presentations were given in Greek.

In addition to the speakers, the audience consisted of physicians and others from the aerospace medicine community of Greece and elsewhere; students; media; and local residents, including the mayor, with interest in the topics presented. On September 5, several of the presenters met with a group of school children, during which many questions were addressed to Cosmonaut Valery Polyakov. In addition, informal talks were presented on Greek history and geography. The meeting also provided opportunity for in-depth analysis of Greek culinary science.

MEETINGS CALENDAR 2005

October 31 - November 4, 2005, San Francisco. International Congress of Nanotechnology. Info: The Event Coordinator, International Association of Nanotechnology Sacramento, CA 95825 USA; email: info@ianano.org; Web site: www.ianano.org; www.nanotechcongress.com.

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

September 10-14, 2006, Bangalore, India. 54th International Congress of Aviation and Space Medicine. This meeting is being hosted by the Indian Society of Aerospace Medicine. A preliminary registration form may be found at <http://www.isam-india.org/conference44/newreg.php>.

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AEROSPACE PHYSIOLOGY REPORT

Certification in Aerospace Physiology

Board Certification in Aerospace Physiology will be offered in May 2006 in Orlando, Florida, during the 77th Scientific Meeting of the Aerospace Medical Association. For qualified applicants who meet the prerequisites for candidacy and successfully complete the examination, board certification is among the most rewarding professional achievements in a scientist's career. To simply say that it is important for an aerospace physiologist to obtain professional certification is not a complete statement. To fully appreciate the value of the designation, one needs to understand why the Aerospace Medical Association established board certification in Aerospace Physiology in the first place.

As with most fields of advanced professional endeavor, the primary reason was to encourage the study, improve the practice, and elevate the standards of excellence in Aerospace Physiology. Preparing for an examination as broad as the board examination in aerospace physiology requires discipline, dedication and commitment. In the process, it takes many candidates back to their roots as a scientist and reminds them why they committed themselves to pursue an aeromedical specialty to start with. It causes many candidates to review knowledge areas which they do not employ on a daily basis, and in some cases, to engage in study in areas they may have never pursued before. In such cases, preparing for board certification can actually expand the knowledge base and foundation of understanding of a scientist, ultimately making the candidate a better aerospace physiologist.

A secondary reason to seek board certification is more obvious; to provide an avenue for professional and peer recognition. As an aerospace physiologist, the associated professional organizations are AsMA, the Aerospace Physiology Society (AsPS), and service-specific collectives such as the Society of U.S. Naval Aerospace Physiologists (SUSNAP). AsMA is the certifying body in aerospace physiology, and successful completion is recognized every year during the AsPS luncheon at the AsMA annual scientific meeting. As of May 2005, 125 specialists successfully achieved board certification since it was first conferred in 1977. Being awarded the gold pO2 pin and certificate of board certification says that a scientist has met significant academic challenges and is a true professional in a select field. In essence, board certification declares that an individual has formally earned the respect of his or her professional peers and their governing organizations.

Finally, board certification serves as a goal that members can strive to attain through dedicated self-study and personal and professional contributions to the AsMA and AsPS. However, eligibility is not simply limited to individuals who possess the necessary academic backgrounds. Perhaps the most

significant prerequisite is demonstrated interest, participation, and contribution to the field of aerospace physiology over a period of at least 5 years. Relevant education, experience, and professional contributions are each fundamental elements leading to board certification. Board certification in aerospace physiology says that a scientist takes the aeromedical profession seriously.

Eligibility to sit for the examination requires a minimum of a baccalaureate degree in physiology, or a closely related life science with significant study in human physiology. The requirement for professional productivity stipulates a minimum of five years of professional experience and training in aerospace physiology following awarding of the degree. Other factors considered by the admissions committee include relevant positions held, research, flying experience, academic and military awards, and membership in associated organizations (e.g., AsMA and AsPS). A minimum of two letters of recommendation are also required for each applicant.

Applicants who satisfy all of the eligibility requirements will be subsequently confirmed as candidates by the Admissions Committee to sit for the certification examination. For the 2006 exam, the Chairperson of the Admissions Committee will notify eligible candidates not later than March of their admission to the examination and provide them with information on the examination process. Included in that communiqué will be current references, subject test areas, and sample questions. Based on the comprehensive nature of the examination, preparation by applicants should begin early irrespective of the date of notification.

The Aerospace Physiology Certification Board will administer the certification examination at the 77th Annual Scientific Meeting of the Aerospace Medical Association in Orlando, Florida, on Sunday, 14 May 2005. The examination, which is offered in English only, will contain questions covering various areas relevant to aerospace physiology including, but not limited to: general human physiology, space physiology, exercise physiology, spatial orientation, acceleration physiology, hyperbaric physiology, human factors, night vision, LASERs, and operational problems. Also covered will be relevant areas of basic physics and atmospheric science. The weighting of these subject areas is not equal and the distribution of the emphasis is reviewed periodically. As of 2005, all examination questions are of the objective type, i.e., multiple choice, true/false, and answer matching.

Individuals interested in taking the examination should first establish their eligibility by obtaining an application form and more complete information about certification requirements from the Chairman of the Admissions Committee. Applications from candidates who wish to take the examination

in 2006 must be received by 1 March 2006. Applications received after that date cannot be guaranteed consideration for the 2006 examination.

Application packages and questions pertaining to the certification process may be directed to the Chairman of the Admissions Committee, Maj. David A. Welge, BSC, USAF. He may be contacted by email at david.welge@holloman.af.mil. For individuals who do not have access to e-mail, the following mailing address may be used:

Maj David A. Welge
3801 Basswood Dr.
Alamogordo NM 88310

AsPS Member Benefits

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

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

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

The chance to contribute to the success and quality of the annual AsMA conference. The Society's Education and Training Day has been one of the most widely attended sessions during the annual conference. Membership is only \$10. For more information, please contact Joe Essex at joseph.essex@navy.mil, or write to:

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BLDG 2272 Suite 345
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Air Force Nursing Services Chronology Published

"A Fit, Fighting Force: The Air Force Nursing Services Chronology" by Mary C. Smolenski, Donald G. Smith, Jr., and AsMA member, James S. Nanney, has been published by the Office of the Air Force Surgeon General, Washington, DC. It was published in conjunction with the 100th anniversary of flight.

The 89-page illustrated booklet contains a list of highlights and turning points in USAF nursing history, as well as a chronology by decade and many appendices with lists of Air Force Surgeons General, Nurse Corps Chiefs, Nursing Awards and awards winners, including the AsMA Awards, and much more. The GPO # is 2005-310-132/25502.

Send information for publication on this page to:
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Message from Our President - Trish Trifilo

Wing members are wonderful people! I have always been impressed with the outpouring of compassion, words of encouragement, prayers, and phone calls given to members at times of celebration, and at times of personal loss and tragedy. My e-mails are filled with that information all the time, and I thank all of you for it. Our Wing membership is a great thing. We now number around 200, with an average of 80 members attending meetings.

To maintain our membership we must nurture it. In my academic world, we worry about the attrition of students; those who drop out or choose not to return to school. Attrition means to wear down, or gradually diminish by constant stress. One way to nurture our membership is to guard against attrition.

We have new members who come for a year or two and then stop attending our meetings. Why is that? Sometimes, as with some of our International members, their spouses have limited associations with AsMA and leave after a few years. Sometimes it is due to family pressures of children, schooling, and finances. Sometimes, unintentionally, we fail to make someone welcome or part of the group. While we cannot do much about business, finance, and family, we certainly can do something about welcome. Some of the techniques we use in the University to prevent attrition are: remembering and using the person's name, acknowledging their ideas and verbal contributions, inviting them to participate in activities, giving them responsibility or a degree of ownership in the class. I also try to be aware of any crisis that might arise in their busy lives.

To combat attrition in our membership we can use some of these same techniques. Sit with new members on the tour buses or at the luncheon tables. Include them in your conversations and discussions. We should involve our new members in Wing activities as soon as possible because participating in even small jobs can give a person a sense of belonging. Listen to their ideas for future meetings. Let's contact new Wing members throughout the year with an e-mail or a



CONCERT IN THE PARK--After the Chopin piano concert, Wing members gather for a walk in the park.

phone call and make them feel special. They are our future. Let's not let the Wing membership wear down or diminish.

Wing Members Attend International Congress

By Harriet Hodgson

The Wing was well represented at the 53rd International Congress of Aviation and Space Medicine held in Warsaw, Poland, August 28-September 1, 2005. According to Membership Chair Judy Waring, 21 Wing members came to the meeting. Before the meeting started Helen Lestage gathered a group together and we went to hear "Chopin in the Park," a free piano concert for the public.

John and I had several tours to choose from: Mozovian Country tour, a tour of Cracow, a city more than 1,000 years old, and a tour of Auschwitz, a former Nazi concentration camp in World War II. We choose the country tour because it included a visit to Chopin's birthplace, a charming home set in a garden of blooming hosta, geraniums, and roses.

Mid-week we toured the Military Institute of Aviation Medicine, founded in 1928. The Institute has a Scientific and Didactic Center, Aeromedical Training Division, Medical Assessment and Occupational Medicine Center, and a small clinic. We saw altitude chambers, a night vision training room, and the Institute's history museum.

The Academy Dinner was held at The Best Western Mazurkas Hotel. We were welcomed with flutes of champagne and accordion music. Dinner featured such an array of foods that it was served buffet style. Waiters, carrying tray after tray of desserts, paraded around the dining room to the music of "Star Wars." (Keep this in mind for your next dinner party.)

The Congress ended with a Gala Dinner at the Palace of Culture and Science, a stark building designed by a Russian architect. Appetizers were served and then we were entertained by Mazowsze, a national ensemble of talented singers and dancers. Dinner resumed after the entertainment. Dr. Eric Donaldson, President of IAASM, thanked the organizing committee members for their efforts and welcomed Dr. Frank Pettyjohn as the new President.

John and I stayed an extra day so we could go to Cracow. We toured Old Town and the Wieliczka Salt Mine, an underground network of tunnels, lakes, and rooms decorated with salt sculptures. I walk regularly, but descending more than 1,000 steps made my legs ache. Fortunately, I didn't have to walk up the steps. A miners' elevator took us to the surface in less than a minute. The elevator didn't have any lights and the shaft was black as ink, so I was glad I had brought a flashlight along.

For me, the highlight of the trip was hearing the concert in the park. The scene was

straight out of a movie. At the end of a long reflecting pond there was a statue of Chopin. The grand piano, under a curved canopy, was to the right of the statue. And people - some 3,500 of them - filled the park. As the piano notes drifted in summer air a shiver went down my spine. I felt like I was listening to Poland's soul.

Join the Wing!

A few years ago, when we were living in Rochester, MN, we were neighbors of John and Harriet Hodgson. One day Harriet said to me, "Dale, why don't you ever come to the AsMA meetings?" Well, like most of our AsMA members, my husband Bob belongs to a gamut of different organizations, and we make the yearly circuit attending numerous meetings all over the country, where he is off to the scientific sessions leaving me to explore the host city on my own. Making a wry face, I responded to Harriet with "Another meeting, - oh, Harriet, I don't think so!" "No, no, Dale, AsMA is different - we have the Wing!" And Harriet was correct, for AsMA is indeed unique. Not only does it present a wonderful scientific program for its members, along with a terrific social agenda of dinners and receptions - it has THE WING!! First formed in 1952, "to support the specialty of aviation, aerospace and environmental medicine" and "to promote and increase sociability among the members of AsMA and their families," the Wing provides a wonderful opportunity to meet new friends from around the world, while exploring many new and exciting cities. Next year, we will be meeting in Orlando, FL, and the year following, New Orleans. News of our activities can be found on this page throughout the year. We encourage all of our members to attend, and if possible, to bring a new friend. And to those AsMA members reading our page, please, BRING THAT JOURNAL HOME - GIVE IT TO YOUR SPOUSE!! We look forward to greeting them at our next meeting.

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



ICASM 2005--Caroline Jensen, Nonja Bisgard, and Marilyn Brath enjoy the tour of the Military Institute of Aviation Medicine in Warsaw.

Send information for publication on this page to: **News of Members**
Aerospace Medical Association
320 S. Henry Street
Alexandria, VA 22314-3579
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NEWS OF MEMBERS

Maj. Norman West, USAF, BSC, is currently a student at the Air Command and Staff College, Maxwell AFB, Montgomery, AL. He was previously Aerospace Physiological Training Flight Commander, Health and Wellness Center Flight Commander, and Fairchild AFB installation Exercise Physiologist, 92d Medical Group, Fairchild AFB, Spokane, WA. He was recently awarded the Air Force Meritorious Service Medal with 3 oak leaf clusters.

Obituary Listing

Jacques Martin Lindauer, M.D., Fresno, CA, died in May at the age of 89. He was an FAA Aviation Medical Examiner for many years and a former member of AsMA.

New Members

Abuan, Jaime D., M.D., Winter Haven, FL
 Ahmet, Mustafa, M.B., B.S., Strathmore, Vic., Australia
 Alfar, Douglas R., M.D., Navarre, FL
 Annicelli, Lance L., Maj., USAF, Brooks City-Base, TX
 Asher, David T., M.D., Fullerton, CA
 Ayers, Karyn J., M.D., Tinker AFB, OK
 Bruno, Patricia G., D.O., Orlando, FL
 Caloia, Lori A., M.D., San Antonio, TX
 Carter, Chad C., D.O., Sapulpa, OK
 Chhieng, Chivano, M.D., Brea, CA
 Coffman, Charles B., M.D., Sacramento, CA
 Cotton, John J., M.D., APO AE
 Cullen, Edith M., M.D., Peoria, IL

Darnsteadt, Derrick R., M.D., Walnut Creek, CA
 Dockendorf, George, Maj., USAF, MC, FS, Layton, UT
 Hanley, Jr., Christian T., M.D., Chesapeake Beach, VA
 Hardy, David A., D.O., APO AP
 Howerton, Preston B., D.O., Lee's Summit, MO
 Huhn, Todd P., D.O., Minot, ND
 Indra, Steven M., D.O., Sumter, SC
 Jones, David C., M.D., Jericho, VT
 Kehren, Jessica A., M.D., San Antonio, TX
 King, Gideon, M.D., Mt. Vernon, OH
 Lahtinen, Taija, Oulu, Finland
 Lee, Hyeonkyeong, M.S., Willowbrook, IL
 Lim, Arnold K., D.O., Chino Hills, CA
 Lozman, Philip R., M.D., Miami, FL
 Maloni, Judith A., Chagrin Falls, OH
 McCarty, Richmond D., D.O., Tupelo, MS
 McRee, Necia M., M.D., Sumter, SC
 Perry, Everett L., M.D., Athens, GA
 Puntteney, Elizabeth, 2LT, USA, MSC, Washington, DC
 Ratzlaff, Robert A., D.O., Fort Wayne, IN
 Rawson, Benjamin L., D.O., Mount Laurel, NJ
 Rogers, Paul B., Oklahoma City, OK
 Seedhouse, Erik Leon, Ph.D., West Vancouver, BC, Canada
 Seigler, Richard A., M.D., Brooklyn, NY
 Sellon, Jacob, LT, MC, FS, USN, Kaneohe, HI
 Snyder, Marcus S., M.D., Tonopah, AZ
 Souvestre, Philippe A., M.D., Vancouver, BC, Canada
 Tharin, Baxter, 2Lt., USAF, MSC, Kensington, MD
 VanRyn, Jacques S., M.D., St. Louis, MO

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rtrigg@asma.org

We would like to know about awards, promotions, retirements, changes in duty station, milestone events. Let us know!

We are going to begin publishing an online newsletter with up-to-date news of members and association news-- check out the Members Only section of website.

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STATEMENT OF OWNERSHIP, MANAGEMENT AND CIRCULATION

(Required by 39 U.S.C. 3685)

- Title of Publication: *Aviation, Space, and Environmental Medicine*.
- Publication No. 0095-6562.
- Date of Filing: September 16, 2005.
- Frequency of Issue: Monthly.
- No. of Issues Published Annually: 12.
- Annual Subscription Price: \$195.
- Complete Mailing Address of Known Office of Publication: Aerospace Medical Association, 320 S. Henry St., Alexandria, VA 22314-3579.
- Same as #7.
- Full Names and Complete Mailing Address of Publisher, Editor, and Managing Editor: Publisher -- Aerospace Medical Association, 320 S. Henry St., Alexandria, VA 22314-3579. Editor -- Sarah A. Nunneley, M.D., M.S., 3212 Swandale Dr., San Antonio, TX 78230. Managing Editor -- Pamela C. Day, B.A., Aerospace Medical Association, 320 S. Henry St., Alexandria, VA 22314-3579.
- Owner: Aerospace Medical Association, 320 S. Henry St., Alexandria, VA 22314-3579.
- Known Bondholders, Mortgages, and other Security Holders: None.
- Owning or Holding 1 Percent or More of Total Amount of Bonds, Mortgages, and Other Securities: None.
- For Completion by Nonprofit Organizations Authorized to Mail at Special Rates: The purpose, function, and nonprofit status of this organization and the exempt status for Federal income tax purposes has not changed during the preceding 12 months.
- Publication Name: *Aviation, Space, and Environmental Medicine*.
- Issue Date for Circulation Data: September 2005.

15. Extent and Nature of Circulation:	Ave. No. Copies Each Issue During Preceding 12 Months	No. Copies of Single Issue Published Nearest Filing Date
a. Total no. copies	3738	3640
b. Paid circulation		
1. Paid/requested outside county mail subscriptions	2282	2228
2. Paid in-county subscriptions	0	0
3. Sales through dealers and carriers, street vendors, and counter sales	941	957
4. Other classes mailed through USPS	0	0
c. Total paid/requested circulation	3223	3185
d. Free distribution by mail:		
1. Outside county	55	55
2. In-county	0	0
3. Other classes mailed through USPS	0	0
e. Free distribution outside the mail	25	25
f. Total free distribution	80	80
g. Total distribution	3303	3265
h. Copies not distributed	435	375
i. TOTAL	3738	3640
Percent Paid and/or Requested Circulation	97.6%	97.5%

Aerospace Medical Association



Corporate and Sustaining Members

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

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