

President's Page

I continue to consider myself very lucky for having been elected AsMA President this year. I just had the great honor and pleasure to participate in the "National Aviation Hall of Fame" 43rd Annual Enshrinement Ceremony in Dayton, OH. Dr. Russell Rayman and I were extremely proud to receive the "2004 Milton Caniff Spirit of Flight Award" on behalf of our beloved Association. This award is bestowed to an organization or group in recognition of its significant contributions to America's aviation heritage. AsMA was recognized for our hard work and dedication. This was a particularly special event for me because the award was presented by none other than astronaut Neil Armstrong, who was one of my childhood heroes. Furthermore, we had the chance to spend some time with him during the awards dinner. Watching Neil Armstrong take the first step on the surface of the moon on July 20, 1969 (I was 9 years old) left an ever lasting memory, and motivated me even more to pursue my aerospace dreams. As a boy growing up in Mexico, I could have never expected or predicted that I would eventually meet Neil Armstrong under such special circumstances. What made the award ceremony even more rewarding was having been able to share that great experience with my wife Sandi, as well as with several close friends and AsMA colleagues. That being said, I would like to publicly acknowledge the personal initiative and dedication of John W. Frazier and Dr. William B. Alberty, who nominated AsMA to receive this prestigious award. Putting together the award nomination package was a very time-consuming and labor-intensive effort, and they did an outstanding job. On behalf of AsMA, I express our most sincere and heartfelt appreciation for having made this recognition possible.

Recently, I also had the privilege to participate as a guest speaker in a "Medical Examiners Seminar" organized by the German Academy for Aviation and Travel Medicine in Seeheim-Jugenheim, Germany. Seminar attendees included Aviation Medical Examiners from 49 countries in Europe, Asia, and Africa. The scientific program of the seminar was excellent, and our group discussions emphasized the importance and the need to promote global standardization of pilot medical certification requirements. The fact is, there are still significant differences in the purpose and scope of baseline aeromedical certification requirements (initial and subsequent) for pilots around the world. Some countries utilize a more liberal regulatory medicine approach, while others follow a more conservative preventive/occupational medicine pathway. Each one has benefits and disadvantages and, so far, it has been impossible to reach a global consensus. The good news is that the ultimate goal of both approaches is to promote aeromedical safety in civil aviation operations by means of preventing incidents and accidents related to



Melchor J. Antuñano, M.D., M.S.

sudden medical incapacitation and/or performance impairment of flight crews during the operation of an aircraft. Furthermore, thanks to the professionalism, dedication, and collaborative efforts of our aerospace medicine colleagues around the world, we are starting to observe a trend towards a more uniform criterion for issuing medical waivers to pilots with medical conditions. This trend is particularly important considering that the average life expectancy of the civil aviation pilot population is increasing, and with that the prevalence of medical problems associated with aging is also increasing. Fortunately, thanks to the ongoing scientific advances and breakthroughs in medical knowledge, technologies, and procedures, we now have better tools at our disposal to support the issuance of waivers to pilots with certain medical conditions that would have been considered disqualifying just a few years ago. Rest assured, AsMA will continue to promote the global standardization of medical certification requirements by means of providing an international forum for the open discussion of diverse points of view and facilitating the development of resolutions and position papers using the valuable knowledge base and experience of our membership.

Did you know that there is a new type of flight certificate available for pilots operating light-sport aircraft in the United States? This "Sport Pilot Certificate" is now required for operation of more than 15,000 existing uncertified small, low-performance, and low-energy aircraft that meet the following specifications: 1,320 lb (600 kg) maximum takeoff weight, 1 or 2 occupants, non-turbine single engine, maximum stall speed of 45 knots, maximum airspeed in level flight of 120 knots, fixed landing gear, and fixed propeller. Light-sport aircraft include airplanes, gyroplanes, balloons, airships, weight-shift-control aerial vehicles, and powered parachutes. FAA Administrator Marion Blakey has expressed that this sport pilot rule will reduce the barriers to becoming a pilot.

See PRESIDENT'S PAGE, p. 822.

PRESIDENT'S PAGE, from p. 821.

While preparing this page I received a news release reporting that in the Autumn of 2004 the first "Aviation High School" in Washington State is scheduled to open its doors to 100 ninth grade students living in the Puget Sound area. The mission of this aviation-themed public high school is "to prepare students for college, work, and citizenship through a personalized, rigorous, and relevant learning experience that is facilitated in the context of aviation and aerospace." Because of the school's location in the Puget Sound area, the students will have access to more than 150 aviation businesses that will provide aviation-related practical experiences. These students will fulfill the same academic requirements as in any other high school, but all subjects will revolve around an aviation theme and will emphasize mathematics, science, and technology. Until now, I was not very familiar with the mission and goals of these "Aviation Magnet Public Schools." However, this news release caught my attention and, after doing some research, I learned that this school is the latest addition to a list of about 66 aviation magnet elementary, middle, and high schools in the United States. I also learned that 5 years after the first powered controlled flight by the Wright Brothers, a physics teacher named H. LaVonne Twining of the Los Angeles Polytechnic High School used aeronautical sciences examples to facilitate the teaching of physics. Students who attend theme-based magnet schools demonstrate higher levels of academic achievement because they are immersed in the context

of a theme that truly interests them. Aviation is just one of the many themes that have been used to establish magnet schools. As part of our AsMA educational outreach activities, the Executive Committee will identify alternative approaches to support these aviation magnet schools. In return, we expect to be able to promote awareness about Aerospace Medicine and its allied disciplines among elementary, middle, and high school students. The Executive Committee will also explore the possibility of linking these educational outreach activities with the ongoing development of our formal mentorship program.

In other news, NASA announced their plan to establish a cash-prize program named "Centennial Challenges" that may provide up to \$20 million in 2005. The purpose of this program is to stimulate innovation and facilitate revolutionary advances in fundamental space technologies, robotic capabilities, and very low-cost space missions. This program was inspired by the "Ansari X Prize" that has generated great excitement and significant progress in the development of private reusable launch vehicles.

Finally, I want to take this opportunity to remind you once again that we need your assistance in all elements of our Association, from maintaining your membership and recruiting new members, to mentoring others, and pursuing more active involvement through participation on committees or in the leadership of our organization. There is a role for each of you.



Aerospace Medicine Residency Openings – Applications are now being accepted for the UTMB/NASA-JSC Aerospace Medicine Residency for July, 2005. The two-year program trains physicians in operational and research aspects of space medicine, manned space flight and comprehensive aerospace medicine topics. Residents participate in mission-oriented medical operations at JSC, receive clinical training in space medicine and complete a research project. Upon completion of the program, residents earn a Master of Public Health in Preventive Medicine degree. The program is accredited by the Accreditation Council for Graduate Medical Education and is one of three Preventive Medicine residency programs offered at the University of Texas Medical Branch. The MPH program is also accredited by the Council on Education for Public Health. Qualified applicants must have completed at least a PGY-1 clinical year in an ACGME-accredited residency with six months of direct patient care. Deadline for applications: October 31, 2004. Visit our web site at www.utmb.edu/pmr or Contact: Yvette Schulz, Office of Preventive Medicine Residencies, UTMB, 301 University Boulevard, Galveston, Texas, 77555-1150. Phone: (409)772-5845. Fax: (409)747-6129. The University of Texas Medical Branch is an equal opportunity/affirmative action employer. M/F/D/V.

Medical News

Executive Director's Column



Rayman

Space Tourism

All of us who saw Mr. Burt Rutan's historic SpaceShipOne reach an altitude of 100 km can be certain that space tourism is just around the corner. If Mr. Rutan, or any entrepreneur, successfully launches 3 passengers (or an equivalent weight) into space on 2 occasions within 2 weeks, he will win the prestigious X-Prize of 10 million dollars.

There are undoubtedly many private individuals who would willingly fly into space regardless of the costs (and risks). Some have paid as much as \$30,000.00 in advance for a place on a space vehicle that has not yet even been built. Now aerospace medicine faces a new challenge: medical standards for space tourists. Nevertheless some (mainly nonmedical colleagues) feel that there is no need for medical standards because flying in a space vehicle is no different than flying in a commercial aircraft. However, those of us in aerospace medicine know that there are physiological stresses imposed by these space vehicles that are not necessarily extreme, but could cause adverse effects on passengers with preexisting illness. Of particular concern would be accelerative forces that could reach 3 to 4 +G_z.

The Aerospace Medical Association anticipated space tourism several years ago and published 2 position papers with recommendations for medical examinations and standards for space passengers (1,2). The most recent paper (2) assumes a very short duration flight; hence, its recommendations are liberal. Both position papers were forwarded on to those industries that were planning to take an active role in space travel.

Although it is anticipated that the first flights will be of very short duration, perhaps only 30 minutes, there will undoubtedly be in the future longer duration flights for revenue passengers and even accommodations for stays of several days or several nights or even several weeks in microgravity. This could be a much different situation than a short 30-minute flight. Questions that need to be answered are: should medical standards be stricter for long duration flights: should countermeasures be required for passengers; and if so, what are the implications of preexisting disease and performing prescribed countermeasures. These questions have not yet been addressed by AsMA, but certainly in the foreseeable future, we will

call together our experts in space medicine in an effort to resolve these issues.

One wonders how our forbears who met in Detroit in 1929 would react if they knew that anybody who can afford the price of a ticket would be flying into space less than 100 years later.

REFERENCES

1. Medical guidelines for space passengers (1). Aerospace Medical Association Task Force on Space Travel. Aviat Space Environ Med. 2001; 72: 948-50.
2. Medical guidelines for space passengers (2). Aerospace Medical Association Task Force on Space Travel. Aviat Space Environ Med 2002; 73: 1132-4.

AMA House of Delegates Meeting

The House of Delegates of the American Medical Association met in Chicago, June 11 - 16. In attendance were your Delegate and Alternate Delegate, Drs. Daniel B. Lestage and Russell B. Rayman, respectively. Outgoing President Don Palmisano, M.D., gave an impassioned speech on medical liability and the compelling need for tort reform. The AMA has made significant strides in many of our states, placing a cap on noneconomic damages and a cap on trial lawyer fees. Still, 19 states are in grave crises with many physicians retiring early, moving to a "safe" state, or giving up certain high-risk procedures in their respective practices. A number of horrible examples were given of deaths occurring due to the unavailability of physicians forced out of practice because of outrageous malpractice premiums.

The AMA will continue its fight in Washington against further reductions in Medicare with fees expected to decrease by 5% per year between 2006 and 2012. Such reductions can result in an untenable financial position for many practicing physicians.

The AMA is now turning its guns on the national epidemic of obesity with an estimated 2/3 of the U.S. population overweight and 30% of these obese. Efforts will be made at the national and local levels to educate physicians as well as the public, particularly regarding overweight children. One strategy is to approach school systems because all too often, children have unhealthy choices in the cafeterias. Smoking in adults and children is still unacceptably high and more pressure will be exerted upon the tobacco industry as well as the government.

Educational sessions were held between House sessions on obesity, e-medicine (electronic health records), and pain management with further such sessions planned for future House of Delegates meetings.

There were several items of interest to aerospace medicine. First, a well-written paper by the Council on Scientific Affairs on DVT in flight was approved. (The AMA gave

your Home Office the opportunity to pre-review it.) Although the body of the report had considerable information of great interest, the recommendation that the House of Delegates approved was to track research regarding possible causal factors of in-flight DVT and to offer more concrete recommendations at a later date. In addition, a resolution carried calling for the lawful and humane treatment of prisoners of war. This was prompted by the situation in Iraq. Also the House reaffirmed its support of medical research in space. This resolution was originally introduced to the House by AsMA several years ago. And finally, a resolution was approved requesting the airlines to carry appropriate medications in emergency medical kits to treat in-flight allergic reactions, particularly peanut reactions. Your Delegates reminded the House that this was already being done on U.S. air carriers and was mandated by the FAA beginning in April 2004. However, the AMA opted to approve this resolution anyway to go on record in support.

The Medical Student Section of the AMA had a career's day on Saturday afternoon before the House officially convened. AsMA had a booth with many students stopping by showing an interest in aerospace medicine; many said they will consider joining AsMA. Elections were held with Mississippi family practice physician, J. Edward Hill, M.D., elected President-Elect of the AMA to become President in June 2005. Three other individuals who are friendly to aerospace medicine and preventive medicine were also elected to other offices.

If you have any questions regarding AMA activities, feel free to contact Drs. Lestage or Rayman.

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IAMFSP AWARD--President, Capt. Dwight Holland, USAF, presents a special award to Harry P. Hoffman, Jr., M.D., M.P.H., for his outstanding service and dedication to IAMFSP (International Association of Military Flight Surgeon Pilots) through his unselfish service to their website and members. He had also videotaped several of the meetings throughout the years. Harry passed away of an apparent heart attack upon returning from the annual meeting in Anchorage. He was not only the IAMFSP web guru, but was a fixture in the organization and above all, a true friend.

National Aviation Hall of Fame: AsMA Honored

On Friday evening, July 16th, the National Aviation Hall of Fame (NAHF) headquartered at the Air Force Museum on Wright-Patterson Air Force Base, OH, conferred the Milton Caniff Spirit of Flight Award upon the Aerospace Medical Association. The Award is given annually to an organization that has made sustained, significant contributions to aviation and the space program. AsMA received this honor not because of the accomplishments of a few of our members, but rather because of the accomplishments of thousands of members who have contributed to aviation and the space program since our founding in 1929.

The Spirit of Flight Award was conferred at a dinner held in the Air Force Museum under the wings of a B-52 and a multitude of other military aircraft. The dinner and ceremony was hosted by the NAHF President, Major General Clyde F. Autio. There were approximately 500 attendees, many of whom are luminaries in aviation and the space program: astronauts Neil Armstrong, Jim Lovell, Frank Borman, Joe Engle, and Bill Anders. Other celebrities included Dick Rutan, Chuck Yeager, Scott Crossfield, Paul Tibbets, and Joe Kittinger (who was an AsMA member during his earlier days). Many other celebrities were there, but suffice it to say that meeting them and having the opportunity to speak with such a galaxy of greats was an unforgettable experience.

We were greatly honored by Mr. Neil Armstrong who presented the Spirit of Flight Award. In addition, several of us who sat at his table during dinner had the opportunity to enjoy his company and hear some of his stories regarding the early days of space exploration and his Moon landing. Twenty AsMA members were in attendance including our President, Dr. Melchor Antuñano and his wife Sandi and immediate Past President, Dr. David Schroeder and his wife Nevonna.

Following dinner, a brief video was shown on two giant screens showing all of the activities that AsMA is currently engaged in. (You might recall that this video was prepared in 1999 when Dr. Roger Landry was President.) Following the video, Mr. Armstrong made his remarks (see below) to which your Executive Director replied with acceptance remarks (see below). We were then presented a very large painting with an aviation/space motif with the inscription below. It will hang proudly in your Home Office for all to see.

**Milton Caniff Spirit of Flight Award
Presented to the
Aerospace Medical Association
in recognition of its contributions
to the advancement of aviation:
National Aviation Hall of Fame
July 16, 2004.**

It was indeed a spectacular evening enjoyed by our AsMA delegation. Not only was the presentation ceremony exhilarating, but perhaps the highlight of the entire weekend was meeting so many aerospace celebrities.

In closing, it must be remembered that our nomination package was prepared by John Frazier and Bill Alberly. They did a splendid job without which the honor conferred on AsMA may not have so honored. On behalf of all AsMA members, I would like to express our deep gratitude to John and Bill.

Introductory Remarks by Neil Armstrong

Tonight, the National Aviation Hall of Fame, and all of us, join in honoring the Aerospace Medical Association--and I am very pleased to be able to assist in this presentation.

Those of you who are aviation history buffs will remember the classic book, "Diary of an Unknown Aviator," edited by Elliott White Springs. It was a true diary of one of the Americans who went to England early in World War I to join the Royal Flying Corp to help defeat the Hun. Reading that book or others of that time reveals that aircraft crashes were frequent. And non-combat crashes far outnumbered combat crashes.

The British established a laboratory to study the impact of flight on pilots. It was the beginning of aviation medicine. The U.S. Army, also in WWI, trained a special kind of medical officer, the Flight Surgeon. This specialist, while serving sick patients, more often functioned as a physiologist concerned with healthy pilots under the unique stress of surviving in an alien atmosphere.

Some of the open cockpit aircraft could climb to 20,000 feet, so the focus was on protecting crewmen from the cold, castor oil, exhaust, and lack of oxygen. At that time, anyone could fly, regardless of health, vision, or mental capacity. Now we have requirements on health and vision, but there is still some uncertainty about mental capacity.

In the years between the wars, physical standards for pilots were established. This introduced a bit of schism between the doctor and the pilot--understandably, because the doctor could limit or even prohibit the pilot's access to his aircraft.

Early aviation medical practitioners were in either military or commercial sectors. Commercial aviation began to grow. Pan Am introduced long over-water flights. Man's thirst for exploration and advancement was moving faster than his understanding of human factors in this new mode of transportation.

In the midst of this rapid evolution, Dr. Louis Bauer nursed a growing fascination with aviation and related medical issues. Dr. Bauer had served in the military and was a government official in the Department of Commerce, which was the responsible agency for the regulation of flight.

After watching the growth of aviation and the emergence of differing standards between military and commercial pilots, Dr. Bauer gathered together a group of colleagues and convened the first meeting of the Aero Medical Association at the Statler Hotel in Detroit in 1929. By the next year, the group had published its first "Journal of Aviation Medicine."

As aircraft speed and altitude increased and pilots began to experience red-outs and blackouts in diving pullouts, flight surgeons turned their attention to human acceleration limits and how to expand them. They studied the requirements for cabin pressurization and atmosphere and the fields of noise, vibration, and nutrition. After mid-century, the emphasis switched to spaceflight. Early concerns centered on the radiation environment--cosmic rays and the protons, electrons, hard X-rays,

and gamma rays of the solar flares.

It was predicted that a human at the upper edge of the atmosphere would be punctured by 1000 particles per second. The question of the day: is that a problem? Doctors and pilots took balloons to above 100,000 to find out. The Aero Medical Association expanded its focus from the blue sky to black space. In 1959 the organization officially changed its name to the Aerospace Medical Association.

AsMA members initiated studies on weightlessness, isolation, and long-duration flight. It is true that some medical experts believed that humans would not be able to withstand the rigors of spaceflight, which engendered some animosity among the flying fraternity; others, members of the Association, worked diligently to understand the new environment and propose methods of avoiding its problems. Among the contributors to the field that are known to, or remembered by many in this audience, are: Spig Wead, Don Flickinger, Stan White, Ashton Graybiel, Chuck Berry, David Simons, Al Lovelace, and Hall of Fame members Harry Armstrong and John Paul Stapp.

Today AsMA proudly points to the fact that there has never been a significant medical problem during a U.S. spaceflight. Now we look forward to traveling to Mars--and the AsMA will be there helping make that possible.

Ladies and Gentlemen, it is my honor to present to you the recipient of the 2004 Milton Caniff Spirit of Flight Award--The Aerospace Medical Association. Accepting is its Executive Director, Dr. Russell B. Rayman.

Acceptance Remarks of Russell B. Rayman, M.D.

This evening three honors were bestowed upon the Aerospace Medical Association. First and foremost, the Milton Caniff Spirit of Flight Award. We are deeply honored and we thank the National Aviation Hall of Fame. I would also like to thank members of the staff who tended to the arrangements for this auspicious evening namely, Mr. Michael Jackson, Executive Director, Ms. Cee Johns, and Ms. Tara Engel. Secondly, we are honored by the presence of Mr. Neil Armstrong who presented the Award. Thank you Neil for sharing this evening with us. And finally, we are deeply honored by you in attendance, our colleagues, friends, and guests who are with us this evening.

With me at the podium is Dr. Melchor Antuñano. We accept this Award on behalf of the thousands of members of the Aerospace Medical Association who have contributed to civil aviation, military aviation, and the space program since our founding in 1929, over 75 years ago. We accept this Award with mixed emotions; with humbleness, yet with a great deal of pride. We are humbled seeing the Aerospace Medical Association join the ranks of so many prestigious organizations and groups that have been deemed recipients of this Award in previous years. Among them are the Flying Tigers, The NASA Mercury astronauts, and the Tuskegee Airmen, to mention but a few. At the same time we take great

See ACCEPTANCE SPEECH, p. 826.

Spirit of Flight Photo Gallery

Photos courtesy of Ron Kaplan, National Aviation Hall of Fame, unless otherwise stated.



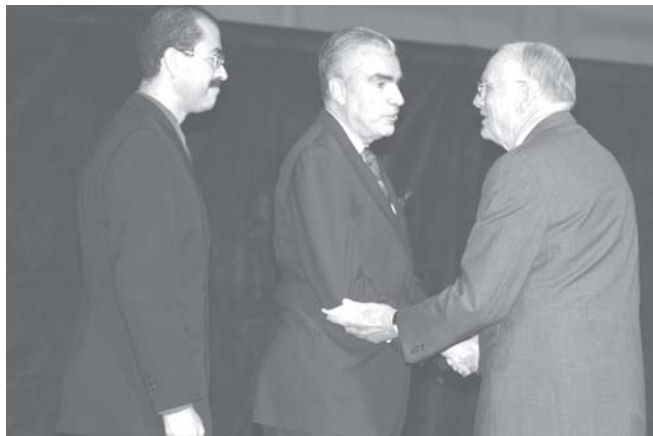
THE PRESENTATION--Neil Armstrong, the first man to walk on the moon, and an NAHF honoree himself, presented the Milton Caniff Spirit of Flight Award to AsMA.



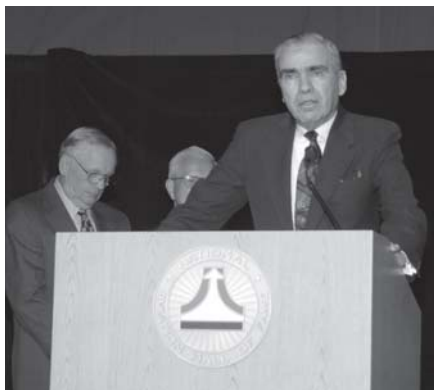
MILTON CANIFF SPIRIT OF FLIGHT AWARD--Presented annually since 1981, the award recognizes significant contributions to America's aviation heritage.



AT THE PODIUM--During the presentation, Neil Armstrong (at the podium) presents the award to Drs. Antuñano and Rayman.



CONGRATULATIONS--Neil Armstrong congratulates Drs. Rayman and Antuñano.



ACCEPTANCE SPEECH--(Above) Russell B. Rayman, AsMA Executive Director, delivered the acceptance speech on behalf of the Association. (Right) Melchor Antuñano, President of AsMA, and Russell Rayman display the Spirit of Flight Award.

Right--Photo courtesy of John Shannon.



ACCEPTANCE SPEECH, from, p. 824.

pride that the accomplishments of our members have been deemed worthy of this special recognition.

Much of our work has been done at several academic and research institutions throughout the Nation. Among them are the Armstrong Laboratory at Wright-Patterson Air Force Base, the USAF School of Aerospace Medicine, the Naval Aeromedical Research Laboratory at Pensacola NAS, the Army Aeromedical Research Laboratory at Fort Rucker, AL, and the Civil Aerospace Medical Institute in Oklahoma City. With us this evening is Dr. Stanley Mohler, who was the Director of the forerunner of this Institute. His legacy is now in the hands of Dr. Antuñano, who is the present Director.

If you go to the USAF School of Aerospace Medicine in San Antonio, you will see inscribed upon their logo the Latin words, *Volanti Subvenimus*, which means, we serve those who fly. Although this is the motto of the USAF School of Aerospace Medicine, I believe that all AsMA members are dedicated to that proposition.

In closing, on behalf of every member of the Aerospace Medical Association since 1929, I would like to express our deep gratitude to the National Aviation Hall of Fame, to Mr. Neil Armstrong, and to all of you in attendance who are here to witness this memorable event.



THE MOSERS--Dr. Royce Moser and his wife, Lois attended the celebraton. The painting in the background depicts the F-100--one the planes Dr. Moser flew as a flight doc.



CONGRATULATIONS--John Frazier (who helped nominate AsMA for the award), Dr. Antunano, Col (ret) Joe Kittinger (NAHF enshrinee), and Dr. Rayman. Dr. Kittinger is the only person ever to break the sound barrier outside an airplane. He jumped from a balloon at 102,000 feet, in free fall for over 4 minutes during high altitude testing.



NAHF PRESIDENT--Dr. Janet Bednarek (incoming NAHF president) and her husband, Lt Col (ret) Mike Bednarek.



HONORED GUESTS--Neil Armstrong talks with Dr. Jack Hastings and Dr. Rayman during the Friday night dinner.



AFTER DINNER--Dr. Antuñano, his wife Sandi, Capt. John Shannon, girlfriend Debbie, Lois Moser, Dr. Royce Moser, Ludy Rayman, and Dr. Rayman. Photos on this page courtesy of John Shannon.

2004-05 MEETINGS CALENDAR

September 16-19, 2004, Adelaide, South Australia. Annual Scientific Meeting of the Australasian Society of Aerospace Medicine. Contact: Jodie Parker, Iceberg Events. +61 7 3715 5000; jodie@icebergevents.com.au.

September 20-24, 2004, New Orleans, LA. 48th Annual Meeting of the Human Factors and Ergonomics Society. Info: HFES (310)394-1811; info@hfes.org; http://hfes.org.

September 27-29, 2004, Salt Lake City, UT. SAFE Association 42nd Annual SAFE Symposium. Info: Jeani Benton (541)895-3012; www.safeassociation.com.

September 27, 2004, London, UK. British Society of Neuro-Otology Annual Scientific Meeting. Info: www.rsm.ac.uk or email: jennifer.lake@rsm.ac.uk

October 27-30, 2004, Port of Acapulco, Guerrero, Mexico. XXI International Meeting of Aerospace Medicine. Theme: Human Factors and Aerospace Medicine. Sponsor: Aviation Medicine Association of Mexico. Info: Claudia Palomeque ó Azucena Laguna, Tel.: 5575-1860, 5575-7295 y 1994-3691;

cpalomeque@grupodestinos.com.mx; alaguna@grupodestinos.com.mx.

January 26-29, 2005, Long Beach, CA. The 13th Annual Medicine Meets Virtual Reality Conference, organized by Aligned Management Associates, Inc. Info: www.nextmed.com/mmvr_virtual_reality.html; mmvr13@nextmed.com.

July 22-27, 2005, Las Vegas, NV. 11th International Conference on Human-Computer Interaction. Further info: HCI International 2005, School of Industrial Engineering, Purdue University, Grissom Hall, 315 N. Grant St., West Lafayette, IN 47907; hcii2005.engr.wisc.edu

September 15-18, 2005, Gold Coast, Queensland, Australia. Conjoint Meeting of the Australasian Society of Aerospace Medicine (ASAM) and the Asia Pacific Federation of Aerospace Medical Associations (APFAMA). This meeting represents the Annual Scientific Meeting of ASAM, together with the 5th Asia Pacific Congress of Aerospace Medicine (APCASM). Contact: Anne Fleming, ASAM Secretariat, +61 3 98991686. fleminga@bigpond.net.au; www.asam.org.au.

LSBEB AWARD WINNERS FOR 2004

Research and Development Innovation Award Dr. Barry Shender

Dr. Shender's contribution to warfighter protection since 1984 has made a tremendous impact on USN crew systems development as evidenced by his numerous scientific publications. He has also been the program manager of the Aircrew Integrated Life Support System (AILSS) program since 2002.

The AILSS ensembles address both the rotor and fixed-wing community; support commonality across the services and their missions; reduce life-cycle costs by implementing concurrent engineering; and respond to the voice of the customer by offering the one and only integrated design for head-to-toe crew protection.

AILSS provides integrated protection for rotary wing aircrew with the Helicopter AILSS (HAILSS), a modular system that provides protection against thermal stress, immersion, and fire, which can be donned as a single ensemble. HAILSS has been tested in the thermal chamber to optimize its internal ventilation distribution system. HAILSS is capitalizing on advances in materials engineering in its development of a stretch Nomex and an automatically closing neck seal (based on hydrogel impregnated neoprene), which is activated upon contact with fresh or seawater. The Tactical aircrew ensemble (Tactical AILSS, or TAILSS), based on lessons learned from the development of HAILSS, adds protection against acceleration and altitude stress for use by high performance fixed-winged aircrew. TAILSS features a system of physiologic sensors and control logic that provides real time closed loop biofeedback electronic control of life support equipment that adapts to the individual's changing requirements. TAILSS monitors ECG, abdominal EMG, and temperature and humidity, by using dry contact electrodes into a ventilated vest. Integrated into the tactical aviator helmet are sensors for head level pulse, SpO₂, and EEG, and respiration is measured using a pressure transducer in the oro-nasal mask. The TAILSS risk predictor model compares actual physiologic responses to "normal" responses, based on literature and previous centrifuge study data. Based on this comparison, TAILSS modifies the anti-G suit and positive pressure breathing inflation schedule to supply either a more (faster onset or higher level) or less (reduce the pressure

when an individual demonstrates high tolerance) aggressive response. TAILSS garmentry has been designed to correct the perceived deficiencies of Navy Combat Edge and other extended coverage ensembles. The upper TAILSS garment is a vest that includes chest counter pressure for PBG, ventilation (via a blower fan textile engineering to enable flow distribution across the torso and chest even when strapped into an aircraft seat), and a sensor platform. It is more comfortable and cooler than the current vest. The lower garment represents a compromise between the desire for extended pressure bladder coverage and the need for mobility and reduced thermal load. For 2004, TAILSS is also expanding the concept of integrated protection to include musculoskeletal protection, specifically of the neck. TAILSS has been tested twice in the Brooks City-Base centrifuge and will undergo developmental flight-testing in the spring of 2004. The R&D Innovation Award is sponsored by the David Clark Company.

Professional Excellence Award James Webb

After a military career as Pilot/Aircraft Commander (C-141A with 4,000+ flight hours) and as a USAF Research Physiologist at USAFSAM, Dr. Webb joined KRUG Life Sciences as a senior research scientist on contract with USAFSAM. He investigated G-tolerance of pilots undergoing training on the centrifuge and altitude decompression sickness (DCS). For his 1991 article in *Aviation, Space and Environmental Medicine*, "Unpredictability of fighter pilot G tolerance using anthropometric and physiologic variables," he received the 1992 Harold V. Ellingson Literary Award from the Associate Fellows Group of the Aerospace Medical Association (AsMA). His research on DCS led to receipt of the Fred A. Hitchcock Award for Excellence in Aerospace Physiology from the Aerospace Physiology Society in 1996.

One of his research projects demonstrated increased efficiency of preoxygenation by employing exercise to enhance perfusion and ventilation. This method has been incorporated in NASA procedures aimed at enhancing denitrogenation prior to the ongoing extravehicular activity.

Dr. Webb is board certified in Aerospace Physiology by the AsMA and holds an Airline Transport Pilot certificate from the FAA. He is

a past-chair of the Aerospace Physiology Certification Board and past-president of both the Aerospace Physiology Society and the Life Sciences and Biomedical Engineering Branch. He became an AsMA Fellow in 1994.

Currently a lead scientist for Wyle Laboratories in San Antonio, TX, Dr. Webb investigates DCS risk to assist the 9th Reconnaissance Wing of Air Combat Command where he helped integrate exercise with preoxygenation for U-2 pilots requiring more effective protection from DCS.

Dr. Webb has, as first or co-author, published more than 100 scientific articles, technical reports and abstracts with about 25 peer-reviewed full scientific articles, mostly involving decompression sickness at altitude, such as: Individual variability to altitude exposure; The effect of exercise-enhanced prebreathe on decompression sickness (DCS) risk at 25,000 ft; Use of breathing gas mixtures containing various inert gas levels on decompression sickness (DCS) risk; Effect of adynamia on DCS incidence; Effect of exposure to 40,000 feet on DCS Incidence; Operational test of prebreathe with exercise (U-2 program); Effect of post-exposure exercise on decompression sickness (DCS); Effect of prebreathe with 100% oxygen while exercising on incidence of DCS; The gender aspect of altitude-induced DCS susceptibility; DCS incidence vs. altitude below 25,000 feet; Complement activation and DCS; Fighter pilot G-tolerance vs. physiologic and anthropometric variables; Oxygen toxicity at 9.5 psia; Hematologic and biochemical correlates of DCS; DCS on exposure to a simulated altitude of 35,000 feet; and Effect of repeat exposures on incidence of DCS. For all these accomplishments the LSBEB selected Dr. Webb as a worthy recipient of this year's Professional Excellence Award, sponsored by the Autoflug Libelle, Inc.

The A. Howard Hasbrook Award Brandon Doan

Major Brandon Doan directs the Air Force Research Lab's Fatigue Countermeasures Program where he leads an R & D team comprised of 33 civilians, military, and contractors, including behavioral scientists, human factors engineers, and physiologists. He has expanded and diversified a \$6M/year research program to reduce accidents and mishaps across a

See HASBROOK AWARD, p. 000.



LSBEB R&D INNOVATION AWARD--LSBEB President Dr. Ulf Balldin (left) presents the R&D Award to Dr. Barry Shender (center). The sponsor, David Clark Company, is represented by Jack Bassick (Right).



PROFESSIONAL EXCELLENCE AWARD--Dr. Ulf Balldin (left) presents the Professional Excellence Award to Dr. James Webb (center) accompanied by Peter Stumpfen representing the sponsor Libelle Autoflug, Inc.



HASBROOK AWARD--Dr. Ulf Balldin presents the A. Howard Hasbrook to 1st Lt. Jennifer Smith (right) standing in for the winner, Major Brandon Doan. The sponsor is U.S. Aviation Underwriters. Dr. Ted Knox, LSBEB Awards Chair (left) looks on.

HASBROOK AWARD, from p. 000.

broader spectrum of operational environments and specialized duties. He focused Air Force involvement in a 5-year \$7.8M Joint Warfighter Science and Technology Program whose goal is to safely project and sustain forces abroad. Major Doan's transition of counter-fatigue strategies and science-based, risk-management technology has been critical to safety and survivability in the current operational environment of increased PER-STEMPO and reduced force numbers.

Major Doan directed quick-turn transition of research output directly to the field in response to requests for safety consultations during Operation Iraqi Freedom. Results of his program's scientific investigations have formed the basis of Air Combat Command's policy on the use of a new cognitive stimulant by B-1, B-2, and F-15 crews, bringing to fruition a 5-year research effort to reduce air-crew mishaps. He personally volunteered as a participant in a clinical trial to determine fit-to-fly times for pilots following the use of stimulants to combat fatigue. In addition, at the request of the U.S. President's medical staff, Maj Doan provided technical guidance, together with a fatigue countermeasure, to reduce risks imposed by rapid transmeridian travel.

The outcome of Major Doan's innovative field research effort, involving search and rescue crews, provided significant data toward crewmember survivability and formed the basis for the Air Force Special Operations Command Surgeon's Fatigue Countermeasures Program. Major Doan has cultivated a

keen awareness among his researchers of the \$54M per year problem of Air Force Class A mishaps, as well as the U.S. Secretary of Defense's Safety Initiative. As a result, a 2-day, multi-service workshop on fatigue in aviation has been formulated and is currently being conducted periodically by his staff to disseminate vital information on operational fatigue and its safety consequences, and to instruct attendees on amelioration strategies. He has conferred with Federal Air Marshals, transitioning know-how on risk management to improve the safety of Homeland Defense operations. In summary, Major Doan's R&D efforts in fatigue countermeasures continue to have direct impact on every aspect of operational performance, safety, and survivability. The A. Howard Hasbrook Award is sponsored by U.S. Aviation Underwriters.

Ross McFarland Student Award Roger Kolegard

The LSBEB Ross McFarland Student Award was given to Roger Kolegard for having the best student paper accepted for presentation at the annual meeting of the Association that reported a significant achievement in biomedical engineering.

Mr. Kolegard's paper, entitled *Comparison Between Individuals with High and Low G-Tolerance with Regard to Pressure* (abstract #19, Aviation, Space and Environmental Medicine, Vol. 75, No. 4, Section II, April 2004, p. B5), reported on experiments to address the hypothesis that distention of precapillary vessels may reduce arterial blood pressure, and hence



MCFARLAND AWARD--Dr. Ulf Balldin (left) presents the Ross McFarland Student Award to Mikael Gronkvist, last year's winner, standing in for Roger Kolegard who could not be present. The sponsor, General Dynamics AIS (formerly Veridian), is represented by William Ercoline.

compromise G-tolerance. He compared the pressure distention in arteries and arterioles of the leg in subjects with high G-tolerance and low G-tolerance. When the subjects were exposed to increased whole body pressure (except for one exposed leg) the diameters and flow in the posterior tibial artery of the exposed, unpresurized leg as measured by ultrasonic/ Doppler techniques revealed lower distensibility and higher stiffness in the high G-tolerance group. His conclusion was "that the in vivo wall stiffness of precapillary leg vessels may be a determinant for relaxed G-tolerance." This award is sponsored by the Advanced Information Systems Division of General Dynamics.

A preview of ICASM 2005 and emotional Moldova

by Dr. Silvio Finkelstein

Having the certainty that the title of this report has caught the reader's attention, allow me to say that invited by the Aviation Authorities of Poland and Moldova, I had the opportunity to visit these two "former eastern" European countries in June 2004. The main objective of the trip was to present conferences on the Evolution of Aviation Medicine and on the work I conducted in Asia on prevention of the spread of SARS.

I had never been in Moldova (an independent Republic since 1991 and an ICAO Contracting State since 1992) and 18 years had elapsed since my last visit to Poland. At the time of the 1986 Belgrade ICASM, on behalf of ICAO, I toured Eastern Europe. In Budapest, conversations held with Dr. Gabor Hardicsay,



Silvio and Olga with the staff from the aeromedical center in Moldova.

who had been my student the previous year, led to the desirability (and feasibility) of developing international programs in Hungary. Those conversations resulted in an ICAO sponsored European AVMED Regional Seminar held in 1993, and the 1999 ICASM.

This time in Warsaw, accompanied by my colleagues and hosts, Dr. K. Mazurek and Dr. E. Wielgolaski, we visited the President of the Civil Aviation Office, the Director of the Polish Air Force Institute of Aviation Medicine, and the Executive Vice President of LOT Polish Airlines. In addition to making these courtesy visits, the opportunity was taken to brief these high level officers on the activities related to the preparations for the 2005 ICASM. The significance of the very prestigious level of the Academy and its sponsored Congresses was duly stressed. All of them were quite impressed and reacted favorably to the request for support. In addition to their "official" support, they enthusiastically agreed to involve themselves personally in

order to assist the Organizing Council. This was very reassuring.

I have held several conversations with different members of the Organizing Council and was favorably impressed by their progress in all spheres of the ICASM 2005 preparations. I was told that their major effort now was related to the development of a Second Announcement brochure. I was assured that appropriate coordination as required by the International Academy of Aviation and Space Medicine will be done on the Scientific Program. In addition, for the Administrative, Financial, and Socio-cultural activities, the Organizing Council decided to engage Mazurka, a well established tour organizer company in Poland.

During my private visit, in addition to exchanging views about next year's Congress, I had a chance to assess and enjoy the quantity and quality of cultural life, historical tradition, and friendliness of the local population. My wife and I were able to attend a performance at the National Theater of the ballet "Romeo and Juliet," we visited the Old Town, the Royal Castle, the birthplace of Chopin with its magnificent park. We took a trip to Krakow (a jewel in itself--really worthy of a post-Congress tour!!), and had the opportunity to taste the excellent local cuisine and were very much impressed by the many social, cultural and tourist opportunities Poland has to offer. My hosts told me that the development of the social program for ICASM 2005 is well under way, and they intend to offer as many possibilities as time and logistics will permit.

Concerning the visit to Moldova, my emotional attachment relates to the fact that my late father was born in 1904 in Chisinau,

See ICASM 2005, p. xxx.



Silvio and Olga Finkelstein in Old Town, Warsaw.

ICASM 2005, from p. xxx.

nowadays the capital of the Republic of Moldova. At the time of my father's birth, the province in which Kishinev (Chisinau) is located was part of the Russian territory; at the time of his emigration to Argentina, it was Romania and as such my father had his immigration papers stamped by the General Consulate of Romania in Buenos Aires.

Dr. Elena Cataman, a doctor from Moldova, is in charge of Aviation Medicine within her country's Civil Aviation Directorate and frequently participates in meetings of the Medical Group of the European JAA, having once hosted a working group in her beautiful City.

And now the emotional story unfolds: she was told by several European colleagues that (I) Silvio Finkelstein, on account of his age and his long term of duty with ICAO, was an historical figure in Aviation Medicine and that, furthermore, Silvio's father was born in Chisinau! Since then, Elena Cataman sent invitations to Olga and myself to visit Moldova.

Fortunately we were able to accept the invitation and the visit, albeit very brief, turned out to be outstanding. Dr. Cataman is a dynamic, very enthusiastic and motivated practitioner who has developed a civil aviation medical center in line with JAA directives and recommendations.

All in all, the visit to Poland and Moldova was very rewarding and I am sure that delegates attending the ICASM 2005 in Warsaw will profit from a significant all around program encompassing outstanding scientific, social, cultural and tourist activities.

This Month in Aerospace Medicine History September 2004

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

One Hundred Years Ago

First airplane maneuvers: On September 15, 1904, Orville Wright made the first turn with a heavier-than-air airplane. Less than a week later, on September 20, his brother Wilbur made the first complete circle (6).

Seventy-five Years Ago

First instrument flight: Originally known as "blind flight," it was first accomplished by James H. Doolittle on September 24, 1929. He took off and landed guided entirely by cockpit instruments (7).

First rocket-engine flight: On September 30, the German automaker Fritz von Opel took off in a small rocket-powered craft and stayed aloft for one minute, fifteen seconds. In that time he covered nearly two miles (8).

Fifty Years Ago

Red blood cell life span at altitude: "Six individuals were studied for red cell life span at sea level and ten days after being taken to an altitude of 14,900 feet. No changes were observed in the red cell life span" (3).

Say 'no' to unmanned aerial vehicles: "We will have men in most of our airplanes because men are capable of complex pattern discrimination and perceptual constancy, that mysterious ability that enables us, for example, to see round things as round and square things as square even though we view them obliquely. We will have men in our airplanes because they can respond appropriately to so many different kinds of inputs, because they have such an immense long-term storage capacity from which they can quickly select a program

appropriate to the immediate situation, because men can change their own transfer functions, because they contain the equivalent of approximately nine billion binary decision elements, because men are relatively immune to jamming, are reasonably reliable, and relatively easy to maintain. Instead of taking the men out of airplanes we must take maximum advantage of these marvelous abilities possessed by all normal people" (4).

Twenty-five Years Ago

Ear plugs and pilot stress (Claremont Men's College, California): "Ten low-time pilots (less than 150 h) who did not normally use earplugs flew three flights each in Cessna-152 training planes. The flight routines were all the same, lasting about 45 minutes. Each pilot flew one flight while adapting to earplugs, another flight with earplugs, and a third flight without earplugs. Pilot's breathing rate was the measure of autonomic arousal. A baseline rate was measured before each flight and in-flight scores were expressed as changes from baseline. Half the pilots flew their flights in the order, with-without earplugs and half flew in the order without-with-with. Results showed a mean increase in breathing rate above preflight baseline of 30% without earplugs and an increase of only 21% with earplugs (data taken from second flight with earplugs) for a significant savings of 9% ($p < 0.025$, Wilcoxon matched-pairs signed-ranks test, one tailed)" (5).

The effects of ozone on pulmonary function (University of California, Santa Barbara): "We examined changes in pulmonary function during resting exposure to concentrations of ozone at 0.75, 0.50, 0.25, and 0.00 parts/million (ppm), and determined the effect these exposures had on a subsequent maximum exercise test using filtered air. In order to determine if recovery of pulmonary function would be facilitated by increased ventilation due to maximum exercise, a control condition was conducted with subjects resting for a period equivalent to the maximum exercise condition. Eight males and five females participated in eight different conditions in order to answer these two questions. Resting 2-h exposure to 0.75 and 0.50 ppm ozone caused significant decrements in forced vital capacity of 10% and 5%, respectively. However, 0.00 and 0.25 ppm ozone induced no pulmonary decrement. None of the pollutant conditions reduced subsequent maximum exercise performance ($\text{ml O}_2 \cdot \text{min}^{-1} \cdot \text{kg}^{-1}$, heart rate, and total performance time). The pulmonary function responses after the maximum capacity test returned to pre-ozone values for the 0.50 ppm condition, but were still significantly decreased for the 0.75 ppm condition. The increased ventilatory exchanges from maximum exercise did not facilitate the return of pulmonary function. It appeared that increased ventilation during ozone exposure plays a significant role only in inducing pulmonary function decrement, but not in facilitating the return of pulmonary function to normal values" (1).

Poorly performed aviation medical examinations: "During recent Safety Board investigations of both general aviation and air carrier accidents, our review of the Airmen Medical Records revealed that discrepancies, demonstrating nonadherence to 14 CFR 67 and lack of quality control by AME's and by the Civil Aeromedical Institute, continue to persist despite the revised computerized procedures. "James B. King, Chairman of the National Transportation Safety Board...seemed primar-

ily concerned with discrepancies in the visual acuity of pilots discovered after accident investigations.

"He pointed out that seven times in the last 5 years, NTSB has made recommendations to FAA concerning its medical certification procedures - 'The board has been concerned with the frequency of these irregularities, because not only were there errors in the medical examination as performed by the Aviation Medical Examiner (AME) but also they were not detected by the reviewing authority, the Civil Aeromedical Institute.

"Review of airmen's medical examinations was computerized Jan. 1, 1978..." (2).

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AEROSPACE PHYSIOLOGY REPORT

Wiley Post Award for Operational Physiology

LT Anthony R. Artino, MSC, USN

The Aerospace Physiology Society presented the 2004 Wiley Post Award to LT Anthony R. Artino, MSC, USN, for outstanding contributions in direct operational physiology, aeromedical training, and education.



LT Artino developed web-based, student-centered training for Naval Aviators. He headed a team that integrated flight simulators with a Reduced Oxygen Breathing Device to more realistically train aviators in

hypoxia recognition and emergency procedures. LT Artino was responsible for the Naval Survival Training Institute becoming a life support systems test and evaluation agent for all U.S. Armed Forces.

LT Artino currently serves as the Director of Human Performance at the Naval Survival Training Institute of the Naval Operational Medicine Institute in Pensacola, FL. He is a native of Niantic, CT. He holds a B.S. in Biomedical Engineering from Rensselaer Polytechnic Institute, and an M.S. in Cardiopulmonary and High Altitude Physiology from Colorado State University. He was commissioned into the United States Navy, December of 1996.

Fred A. Hitchcock Award for Excellence in Aerospace Physiology

Col. Jeffrey C. Sventek, BSC, USAF

The Aerospace Physiology Society presented the 2004 Fred A. Hitchcock Award to Colonel Jeffrey C. Sventek, BSC, USAF, for career contributions and excellence in operational aerospace physiology or aerospace physiology research.



Colonel Sventek dedicated over 25 years to operational Aerospace Physiology. During his tenure as

the Air Force Chief of Aerospace Physiology, Colonel Sventek re-engineered the entire career field with the development of Human Performance Training Teams. He authored the undergraduate pilot training aerospace physiology study guide for the German Air

Force, and produced the first High Altitude Low Opening training program at Kadana AFB, Japan. He wrote the first Air Force fighter Cockpit Resource Management Program. He is recognized world-wide, and has been consulted by the Danish Air Force, the Dutch Air Force, and the Singapore Air Force. Col Sventek won the Carl N. Steinetz Scholarship for research excellence at Rutgers University. He was the 323rd Flying Training Wing and Air Training Command Officer Instructor of the Year and the USAF Physiologist of the Year.

He currently serves as the Commander, 59th Diagnostics and Therapeutics Group, Lackland Air Force Base, Texas. Colonel Sventek is also the Chief, USAF Biomedical Sciences Corps. He holds a B.S. in Biology (Cum Laude) from the University of Nebraska, and an M.S. in Physiology from Rutgers University. Colonel Sventek received his commission in 1978 as a Distinguished Graduate of the Air Force Reserve Officer Training Corps commissioning program.

Paul Bert Award for Excellence in Aerospace Physiology Research

William B. Albery, Ph.D.

The Aerospace Physiology Society presented the 2004 Paul Bert Award to Dr.

William B. Albery for outstanding research contributions in aerospace physiology. The award is named in honor of the French physiologist, Paul Bert, the "Father of Pressure Physiology."



Dr. Albery has been a prolific contributor to the field of aerospace physiology as an author and the principal

investigator at the U.S. Air Force Research Laboratory, Wright-Patterson AFB, OH. His research into female fighter pilot physiology and the advancement of oximetry as noninvasive measures of physiological changes under high G have been significant. His application of physiological measures to detect disoriented pilots is novel and encouraging as a prediction tool. He has published over 120 research articles and technical reports. He has been recognized across the spectrum of services and nations for his scientific contributions, including the Yuri Gagarin Medal (2), Wladyslaw Polish Aviation Institute Medal, 1988 Harry G. Moseley Award for Flight Safety, Armstrong Lab Outstanding Civilian, and the 2003 Outstanding Engineer/Scientist Award by the Affiliate SOCS Council.

Dr. Albery currently serves at the U.S. Air Force Aerospace Medical Research Laboratory, Wright-Patterson AFB. He has been an AsMA Fellow since 1998. He holds a B.S. in Systems Engineering from Wright

State, an M.S. in Biomedical Engineering from Ohio State University, and a Ph.D. in Biomedical Science from Wright State University.

SOFRAMAS Revives Memory of Marie Marvingt

At the May 2003 meeting of the AsMA, Dr. David Lam presented a paper on the life and accomplishments of Mademoiselle Marie Marvingt (1875-1963), a famous French sportswoman and aviator who devoted more than 50 years of her life (starting in 1910) to creating a public and professional acceptance of the use of aircraft in patient transport. During his presentation, he recommended that an AsMA award should be created in her memory, in honor of the dedication and effectiveness of her educational and proselytizing work in support of public acceptance of the then-heretical concept of aeromedical evacuation. (This work was subsequently published in the journal in August 2003, and has recently been reprinted in French in "Medecine Aeronautique et Spatiale" in June 2004.)

The proposal was immediately supported by the President of SOFRAMAS, Dr. Marie-Paule Charetteur, and by Dr. Jean-Pierre Crance, former president, who is well aware of Marie Marvingt's accomplishments as she resided, like him, in Nancy, France. The SOFRAMAS, the French constituent society of the AsMA, discussed this proposal and subsequently agreed to sponsor such an award on an annual basis, in recognition of innovation and excellence in aerospace medicine. A proposal for such an award has been made to the executive council, and has been accepted.

Unfortunately, many of the accomplishments of Mademoiselle Marvingt are not well known in France, and it was felt that it would be most useful to present a short biography of her to the membership of SOFRAMAS. In recognition of Dr. Lam's expertise, and his obvious passion for Marie Marvingt (he has an unparalleled collection of documents and photographs of her life), he and his wife, Carol, were invited to Paris by the SOFRAMAS to be presented to the members of this society at the regular meeting held on 25th March 2004 in the historic Val de Grâce. Inasmuch as he did not feel that his spoken French was suitable for a presentation to such a professional audience, Dr. Lam presented his biography of Marie Marvingt through the voice of Jean-Pierre Crance. Following the presentation, a film on the history and usage of airplane ambulances, which was developed and directed by Mlle Marvingt, was shown. The audience was most appreciative of the presentations, and Dr. Lam was thanked effusively for having brought back to French attention this pioneer of aeromedical evacuation, and for recommending the award in her honor.

WING NEWS & NOTES

A Message from Harriet:

Volunteers Are the Heart of the Wing

What would we do without volunteers? I ask myself this question at every Wing meeting. There would be no meeting without the efforts of our volunteers. Volunteers keep the Wing plugging along and it's a joy to see them in action. Jackie Jordan, registration co-chair in Anchorage, has volunteered with the Wing for years.

"Being a volunteer gave me the opportunity to say 'hello' in a useful way," says Jackie. "Since this is such a caring group it's like being with family." Things can get pretty busy at registration, on the tours, and at the Annual Meeting and Luncheon, but Jackie says Wing members "always have time for quiet conversation." Volunteers always have time for laughter, as well, and many an AsMA member has found the hospitality room by following the sound of laughter.

I couldn't write about volunteers without mentioning our Membership Chair, Judy Waring, who joined the Wing in 1976. Though she was brand new to the Wing, Judy helped out at the meeting and she's been helping ever since. She has served as Air Force Board Member at Large, Secretary, Arrangements Chair, Second Vice President, First Vice President, and President. Membership is a huge job and Judy does it well.

Her duties include keeping track of members via e-mail and snail mail, compiling our directory, and sending out a letter asking for volunteers. If you haven't volunteered before, please think about doing it. As a long-term member of the Wing I know what volunteering does for you. For one thing, volunteering gives you a sense of how our organization works. It also connects you with current and new members. Last, and most important, volunteering leads to lifelong friendships.

We can always use more volunteers in registration, hospitality, and to mentor new members. As we have been doing the last few years, registration and hospitality will be in the same room. Stop by for some refreshments and chat with our volunteers – the heart of the Wing.



WING RECEPTION -- Louise Grenier, Harriet Hodgson, Jean Pettyjohn, and Jackie Jordan relax at the reception.

Highlighting Volunteers Extraordinaire

We've all been there – soccer moms, PTA, community and professional organizations – and as Harriet has just pointed out – volunteering for the multitude of tasks associated with an organization such as the Wing. A few of us have, however, taken our volunteering spirit to extraordinary lengths.

Besides all of her Wing duties, Judy Waring is a very active member of the American Association of University Women's Seattle Chapter. Says Judy, "I first joined AAUW when we lived in the Atlanta area and transferred to Seattle when we relocated in 1993. I've found it a good way to meet interesting women and to provide service to the community. I have served as Secretary, President, Public Policy Chair, and as Membership VP of the branch. I also represent Washington State AAUW in a Pro-Choice coalition of organizations. AAUW was founded in 1881, and works for education and equality for women and girls, as well as fostering equity and positive social change. Recently I had the privilege of representing our chapter and State at the March for Women's Lives in Washington, D.C. We wore turquoise T-shirts and carried signs that said, 'Because Equity is still an Issue'. We joined hundreds of thousands of women and men from all reaches of the nation – it was tremendous to feel a part of such a public outpouring of support for women."

Another of our members very active in her community is Elina Takahashi. As well as conducting tours as a docent for the National Art Gallery in Ottawa, Elina is the current President of her local chapter of the IODE. IODE once stood for the Independent Order of the Daughters of the Empire, and since that name has fallen out of fashion, the organization is now simply referred to by its initials. Says Elina, "We raise money for different charities such as education scholarships and awards. We also sponsor an adopted kindergarten class in Deer Lake in the far northern part of Ontario. We send school supplies plus knitted goods to these Native children. We also support local community services such as



JUDY & FRIENDS -- Judy Waring and friends at the Women's March.

the Humane Society, Shepard of Good Hope, Silver Spring Farms (a home for mentally challenged adults), Guide Dogs for the Blind, Women Abuse Centers, and much, much, more. We host two fundraisers per year, a Strawberry Social in June and our annual Fashion Show and Silent Auction in October."

When it comes to taking volunteering to great lengths, one need look no further than Sallypahn Hawkins. Sallypahn has been volunteering her nursing skills in Ecuador, in the region of Amazonia, for the past ten years. She first began working with Missionary groups, who apart from under-funded National Health Services, were the only ones able to provide basic medical care and advice. Local medical services are few and far between, and administering medical assistance to the scattered settlements is quite a challenge. Says Sallypahn, "My recent trip to Porto Morona in Ecuador went well, although the river was in flood and for two weeks I was unable to go visiting the tribes in the villages along the river. My simple house got washed away, but I was able to stay with old friends. That's Amazonas! I feel a particular kinship with the indigenous people – a Buddhist priest once told me that I was there in a previous existence – I am not sure that I believe this, but I do believe that we share a common ethnic root." Sallypahn's main area of interest is in providing primary nursing care, especially to mothers and children. She usually makes two trips per year, spending about six weeks in the back country each time, and bringing with her much needed medical supplies. Sallypahn derives a great deal of satisfaction and pleasure from her work and says, "The pattern of disease is simple in a textbook, but may vary considerably in different communities. There is little in the books about the communities with which I work in Amazonas so I feel that there is an area, small though it be, in which I am now uniquely able to give care. Retirement is the end of regular paid work, but it does not have to be the end of doing what we can and like to do. I get great pleasure from providing maternal and child health care which has been my work for many years, and my work with the Wing is another direction which has given me great satisfaction over the years."



ECUADORAN FAMILY -- Sallypahn shares time with an Amazonas family

NEWS OF MEMBERS

Send information for publication on this page to: **News of Members**
Aerospace Medical Association
320 S. Henry Street
Alexandria, VA 22314-3579
pday@asma.org

Thomas L. Earwood, M.D., of Augusta, GA, who was a student member of the Medical College of Georgia, has graduated and is now a Psychiatry resident at the College. Shortly before graduation, he won an award for being an outstanding psychiatry student.

LCDR Laura A. Barton, MSC, USN, of Marina, CA, formerly the Head of Force Aviation Human Factors, CNAL, in Norfolk, VA, has accepted a new position as Assistant Professor at the Naval Postgraduate School in Monterey, CA. She also was recently awarded the USN Meritorious Service Medal.

Prof. Minoru Kume, Ph.D., of Tokyo-to, Japan, originally a Professor at Waseda University, Tokyo-to, has now become Emeritus Professor. He is currently Head of the Institute of Competence Assessments in Tokyo-to.

Col. Richard A., Hersack, USAF, MC, CFS, previously the Command Surgeon for HQ Air Force Reserve Command at Robin AFB, GA, is currently the Commander, 51st Medical Group at Osan Air Base in the Republic of Korea.

Richard M. Carter, DO, MPH, of Moore, OK, formerly Command Flight Surgeon, Western ARNG Aviation Training Site, Marana, AZ, and Army National Guard Aviation Medicine Consultant, has retired from the Army. He now serves as Medical Officer, Aerospace Medical Certification Division at the FAA in Oklahoma City, OK.

Daniel L. Van Syoc, Col., USAF, MC, CFS, originally the Chief, Clinical Sciences Division at the USAF School of Aerospace Medicine, San Antonio, TX, has been reassigned to the position of Commander, 78th Aerospace Medicine Squadron, Robins AFB, GA.

LCDR Susan M. Jay, MSC, USN, of Port Royal, SC, previously the assistant department head at the Aviation Training Unit at the Naval Survival Training Institute in Pensacola, FL, has been promoted and transferred to be the Aeromedical Safety Officer at MCAS Beaufort, SC.

Vincent J. Michaud, Col., USAF, MC, SFS, who was previously serving at the Pentagon in Arlington, VA, has been re-assigned as Chief, Aerospace Medicine at Ramstein AFB, Germany.

Stephen V. A. Blizzard, M.D., of Ontario, Canada, recently received the Dr. Wilbur Franks Award, given by the Canadian Aerospace Medicine and Aeromedical Transport Association (CAMATA). Dr. Blizzard is a Fellow of the Aerospace Medical Association, a member of the International Academy of Aviation and Space Medicine, and a Past President of CA-

MATA and the Civil Aviation Medical Association. His area of expertise is pilot fatigue, flight and duty times, and transporting patients by air.

David B. Gillis, M.D., Ph.D., M.P.H., Houston, TX, has accepted a position with the Clinical Systems Development Group in support of on-orbit and exploration missions working with Wyle/UTMB/NASA under the Bioastronautics contract.

New Members

Barker, LT Matthew D., MC, USN, Beaufort, SC

Behzadi, Abdollah, M.D., M.B.A., Rochester, MN

Collins, Paul C., M.D., Boise, ID

Day, Capt. R. Shane, USAF, MC, FS, San Antonio, TX

Downs III, J. Hunter, Honolulu, HI

Haugen, CPT Gregory M., MC, ANG, FS, Fargo, ND

Heaney, Deborah S., M.D., M.P.H., Ann Arbor, MI

Jarnot, Thomas F., M.D., Florence, SC

Keel, CPT John C., MC, ANG, Stone Mountain, GA

Law, Jennifer, South Pasadena, CA

Leong, CDR Wing L., MC, USN, Pensacola, FL

Ricci, Michael A., M.D., Burlington, VT

Seiter, Karen, M.D., Larchmont, NY

Shideler, Maj. Robert M., USAF, MC, FS, Anchorage, AK

Smith, Wayne O., Johnson City, TN

Suvak, MAJ Janine G., MC, USA, FS, Mililani, HI

Tyler, David L., M.D., Dallas, TX

Williams, Reginald G., M.D., Gold Beach, OR

Wright, MAJ Mark S., MC, USA, FS, Bowdoinham, ME

International New Members

Bourzeix, Jacques, M.D., Lencloitre, France

Hinkelbein, Jochen, M.D., Mannheim, Germany

Johnston, Richard P., M.B., B.S., Plymouth, Devon, UK

Lau, Hay Tung, M.B., B.S., Tsing Yi, Hong Kong

Nehring, Michael, Dr. Med., Koenigsbrueck Sachsen, Germany

Okada, Mitsushi, M.D., Sagmihara, Kanagawa, Japan

Schnueriger, Maj. Hans, SAF, MC, Duebendorf, Switzerland

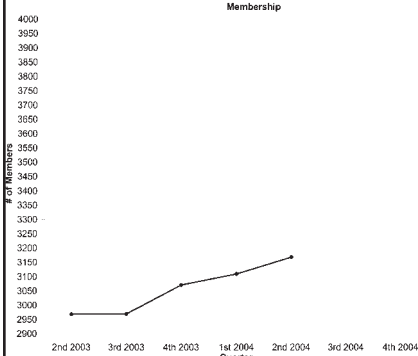
"The First International Congress on Space Medicine Issues in the 21st Century" will be held in Bellagio, Italy from 18-21 October, 2004.

Limited space is available for additional participants. Anyone interested in attending or wanting further information, please contact Dr. Marian B. Sides at: mbsides3@myexcel.com.

MOMENTUM

...AsMA membership has increased over the past 3 quarters because of our collective efforts. Our goal remains 4,000. I WANT YOU to get one new member by the end of this year!

Russell B. Rayman, M.D.
Executive Director



Nominations Sought for 2005 Awards

Please use the nomination form in this journal or online to nominate a deserving colleague for one of AsMA's 15 annual awards.

AsMA Future Meetings

May 8-12, 2005

Kansas City, MO

Hyatt Regency Crown Center

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

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