

# President's Page

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The science and art of aerospace give us a buzz of excitement with whichever branch we are involved. That same excitement also applies to membership in the community of AsMA which encompasses so many disciplines and so many cultures.

As usual in aerospace, change and evolution are occurring. We hope to see the Shuttle program restarting, with a launch date in July. We believe that space tourism is now more than a dream. The European Space Agency has formulated a "Cosmic Vision 2015-2025 science programme," incorporating new planetary missions, space telescopes, and searches for conditions able to support life on other worlds. On the other hand, a British space programme begun in 1957 has drawn to a close with the launch of the last Skylark rocket. The final 441<sup>st</sup> mission carried experiments including a biological investigation of the protein actin and a study of evaporating liquids in low gravity.

The Airbus A380 is well into its test programme and the order book for Boeing's 787 is filling. There is significant aviation medical input to both these new aircraft. The A380 presents the challenge of up to 800 people flying in one aircraft, while the design specification for the B787 brings new environmental control system technology, including a maximum cabin altitude of 6,000 feet.

The military is moving forward with the development of unmanned aerial vehicles. There is still much work to be done on the human factors, as well as the operational aspects. Operational experience so far shows that despite a naturally mutual interest, unmanned air vehicles laden with surveillance and reconnaissance sensors do not



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

mix well in close quarters with manned strike aircraft. This is something which AsMA's human factors specialists need to be thinking about. We should also be aware that the single largest driver for science and technology spending by the U.S. Army is making helicopters safer in combat situations. Controlled flight into terrain still kills too many people.

Despite the advent of new aircraft and technology, the airline industry is facing major challenges. When costs are cut and economies are sought, the airline medical department sits easily in the firing line. AsMA is active in ensuring that the risks so engendered are recognised – we need to keep the position papers and resolutions coming.

Next month I will share my thoughts on how we are maintaining the momentum of the AsMA Strategic Plan, and how we must evolve to stay at the forefront of aerospace medicine. Meanwhile, I ask each of you to recruit just one new active member into AsMA – YOU can make a difference.

# Medical News

## **Constituent Organization Presidents 2005-06:**

### **Lloyd Tripp leads LSBEB**

Lloyd D. Tripp, M.A., is the new President of the Life Sciences and Biomedical Engineering Branch of AsMA. Mr. Tripp is



an internationally known and recognized authority on sustained acceleration physiology and advanced G-protection systems. He is currently an Engineering Research Psychologist with the Air Force Research Laboratory and the Human Information

Processing in Dynamic Environments program manager investigating cognitive performance during high G acceleration.

Mr. Tripp received his Bachelor of Arts degree in psychology from Capital University, Columbus, OH, in 1998. He received his Master of Arts degree in human factors and experimental psychology in 2004 and is currently working towards a Ph.D. in human factors psychology from the University of Cincinnati, Cincinnati, OH.

Mr. Tripp enlisted in the United States Air Force in 1977 and completed training as an Aeromedical Technician at the USAF School of Aerospace Medicine at Brooks AFB, TX. His Air Force assignments included Norton AFB, CA, RAF Lakenheath, England, Wright-Patterson AFB, OH, and Rickenbacker ANGB, OH. He also served in the capacity of Superintendent of Base Medical Services at King Fahd Air Base, Saudi Arabia, during Operation Desert Storm in 1991.

During his first assignment at the Air Force Research Laboratory, Wright-Patterson AFB, he participated in a sustained acceleration program as a test subject on the Dynamic Environment Simulator. He currently holds the record at that facility for completing the most acceleration exposures accomplished over 221 test days. As a centrifuge test subject he gained valuable insight into G research, physiological monitoring equipment, and G protection.

His research interests have moved from using ultrasound Doppler technology for measuring extracranial blood flow during acceleration as a means of predicting impending G-induced loss of consciousness (G-LOC) to infrared spectroscopy and pulse oximeter technology to using two-dimensional echocardiography to measure heart function in both the positive and negative acceleration environments in real time.

Mr. Tripp has over 50 technical publications and has made more than 60 presentations at international conferences. He has been awarded 5 patents for the various physiological monitoring and G-protective de-

vices he has developed over the past 19 years. He is a Fellow of the Aerospace Medical Association and the recipient of the Research and Development Innovation Award of the Life Sciences and Biomedical Engineering Branch. In addition, Lloyd D. Tripp received the 2002 Eric Liljencrantz Award, given to honor excellence as an educator in aerospace medicine, or basic research into the problems of acceleration, altitude, or weightlessness.

## **New Fellows Selected for 2005**

The following Fellows were selected during the 76th AsMA Annual Scientific Meeting:

David M. Brown, M.D.; Miguel Cima, M.D.; Rhonda L. S. Cornum, M.D.; William D. Fraser, M.Sc.; Michael C. Jones, M.D.; Benjamin Z. Kallner, M.D.; Wolfgang D. Linnenbach, M.D.; James S. McGhee, M.D.; Verba A. Moore, M.D.; David F. Neri, Ph.D.; James R. Phelan, M.D.; David M. C. Powell, M.D.; Robert W. Rigg, M.D.; Dr.med. Kirk M. Rose; Farhad Sahiar, M.D., M.S.; and Nicholas L. Webster, M.D.

## **This Month in Aerospace Medicine History-- July 2005**

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

### **Seventy-Five Years Ago**

*Aircraft mishaps due to pilot error:* "Since the beginnings of Aviation there had been investigation of aircraft accidents. Conclusions, however, had lacked constructive value because different organizations were using different classifications and definitions. In February, 1928, the Assistant Secretary for Aeronautics in the Departments of War, Navy, and Commerce requested the National Advisory Committee for Aeronautics to prepare an outline for use by the various governmental agencies in the study of these accidents. A chart was prepared which now is used in each analysis - an aircraft accident being defined as an occurrence which takes place while an aircraft is being operated as such and as a result of which a person or persons are injured or killed, or the aircraft receives appreciable or marked damage through the forces of external contact or through fire. The analyses show that about 60 percent of aircraft accidents are due to the pilot, usually not because of physical defect, but of fault somewhere along his higher levels. The percentages are: 59 percent in Commercial flying; 63 percent in Army flying; 74 percent in Navy flying" (5).

### **Fifty Years Ago**

*Death from accidents: some things never change:* "In the civilian population accidents are now the leading cause of death in the age

range one to twenty-four years and second in the twenty-five to forty-four year group. In World War II the U.S. Armed Forces reported more deaths due to accidents than disease. In 1952 vehicular accidents caused 45 per cent of all non-battle casualties in the Army. In the Navy and Marine Corps motor vehicle accidents accounted for about 25 per cent of all hospital admissions for injuries. About 88 per cent of those killed or injured were on leave or liberty. The Air Force reported 338,025 man days lost in 1952 from this cause. Private vehicle and off duty activities were chiefly involved. Because of the seriousness of this problem the Armed Forces Epidemiological Board has appointed a Commission on Accidental Trauma to study four major divisions: 1. Research on Host Factors in Accidental Trauma, including human characteristics in relation to accidents, the factor of age, characteristics of accident repeaters, and the influence of temporary states and conditions; 2. Research Relating to Host-Agent Relationship in Accidental Trauma, including the role of faults in design and operation of equipment, advance analysis of equipment, and crash injury research; 3. Research in Host-Environment Relationships in Accidental Trauma, including visibility at low levels of illumination, temperature and humidity, and role of the social environment; and 4. The Control of Accidents in the Armed Services" (6).

*Medical research cannot drag behind the rocket designers:* "This is a senior medical student's address which won second prize in the Boylston Medical Society competition. It is a learned and succinct presentation. After reviewing some basic problems in rocket physics the author summarizes the physiologic problems accompanying linear acceleration; friction and heating effects; the gravity free state; and the extra-terrestrial problems of respiration, dysbarism, and radiation. The present rocket age is likened to the air age in 1912. A timely plea is made for medical research to keep pace with 'the drawing boards of the rocket designers'" (7).

*Mishap investigation results of the Comet:* "A very readable and accurate lay account of the detective work that led to the solution of the problem of what caused the disintegration of the Comet. The studies revealed that the pressure cabin failed suddenly and completely. In one-third of a second the passengers had been lifted from their seats, hurled against the top of the cabin, and then pushed 'helter-skelter' forward. The fall from the altitude of 26,000 to 3,000 feet took three minutes. The accident proved to be due to unexpected weakness about the windows during the plane's construction. This was proved experimentally and verified by the wreckage. A rent which nearly tore open the top of the Comet was found running from the starboard rear corner of the automatic direction finding window. Such spectacular research on what makes an airplane fly or crash

*See HISTORY, p. 711.*

## 2005 Award Winners of the Aerospace Medical Association

Honors Night Ceremonies of the 75th Annual Scientific Meeting of the Aerospace Medical Association were held May 12, 2005, at the Westin Crown Center, Kansas City, MO. Fifteen awards for outstanding contributions in aviation and space medicine were presented. The presentations were made by Melchor J. Antuñano, M.D., president of the Aerospace Medical Association. The winners were recommended by the Awards Committee, chaired by Verba Moore, and approved by the Executive Committee of the Aerospace Medical Association.



### LOUIS H. BAUER FOUNDERS AWARD

**David Gradwell, B.Sc., Ph.D.,  
M.B.Ch.B., D.Av.Med., FRCP, FRAeS**

*This award was established to honor Louis H. Bauer, M.D., founder of the Aerospace Medical Association. It is given annually for the most significant contribution in aerospace medicine. Sponsored by the Jefferson C. Davis Wound Care and Hyperbaric Medicine Center.*

Group Captain David Gradwell, B.Sc., Ph.D., M.B.Ch.B., D.Av.Med., FRCP, FRAeS, RAF, received the 2005 Louis H. Bauer Founders Award in recognition of his significant contributions to aerospace medicine, particularly in the area of education. He is a recognized international authority in aerospace medicine and has published extensively in professional journals. He has served as a visiting lecturer in the United Kingdom, the United States, Germany, and Poland, and also served on numerous governmental advisory committees.

Although Group Captain Gradwell grew up in Cornwall, in the southwest of England, he went to university in Scotland where he first graduated from the University of Dundee with a B.Sc. (Hons.) in Physiology in 1976. He then entered the medical school there, graduating M.B. Ch.B. in 1981. After house officer posts in Ninewells Teaching Hospital, he undertook a rotational training scheme in internal medicine. Thereafter, he joined the Royal Air Force in 1984, specializing in aviation medicine. An initial posting to a fighter station was followed by a posting to the Royal Air Force (RAF) Institute of Aviation Medicine, Farnborough, to begin specialist training. Within 2 years he had gained a Diploma in Aviation Medicine and was working on aspects of altitude life support systems, including those for the Harrier GR5 and then the Eurofighter. His related research into cardiovascular and respiratory physiology at high altitude led to his being awarded his Ph.D. in 1993. Later in the same year, he was appointed a Consultant in Aviation Medicine at Farnborough and became Head of the Altitude Life Support Division there.

In addition to his research activities, David was responsible for a considerable part of the teaching in altitude physiology and related subjects at what had, by then, become the RAF School of Aviation Medicine. He also became involved in international activities through NATO and the Air Standardization Coordinating Committee. Invitations to teach in the United States and Germany were followed by ones from Poland and the

Czech Republic. An honorary appointment to King's College London recognized his contribution to teaching aviation medicine to students there, including, from 1999, those studying for the Diploma in Aviation Medicine.

In 1998, when the RAF Centre of Aviation Medicine at Henlow in Bedfordshire was formed, David became the RAF Consultant Adviser in his specialty and Head of Operational Aviation Medicine. In addition, he has for some years been the Chairman of the Aviation Medicine Group of the Royal Aeronautical Society and a member of the International Academy of Aviation and Space Medicine.

He has written on a wide range of topics including pulmonary hypertension, rapid decompression, high altitude physiology and patient fitness for flight. He has contributed to textbooks on aviation medicine and now co-edits the standard U.K. textbook on the topic.

Dr. Gradwell serves on a number of national and international advisory committees including The House of Lords, The Department of Trade and Industry, The Royal Aeronautical Society, and Working Party 61. He has been recognized for his contributions, receiving the Fox-Linton Memorial Award and the Lady Cade Medal from The Royal College of Surgeons, London.

He is a Fellow of the Aerospace Medical Association, the Royal Aeronautical Society, and the Royal College of Physicians of London.



### KENT K. GILLINGHAM AWARD

**Angus Rupert, M.D., M.Sc., Ph.D.**

*This award was established and sponsored by the AMST Group of Companies in Austria and the United Kingdom to honor the memory of Kent K. Gillingham, M.D., Ph.D. The award is presented annually to an individual who has made a significant contribution in the field of spatial disorientation and situational awareness related to flight.*

CAPT Angus Rupert, MC, USN, is the 2005 recipient of the Kent K. Gillingham Award. He was recognized for his expertise in spatial disorientation and for his development of the Tactile Situational Awareness System (TSAS), a tactile cueing system that can be worn by pilots and provides critical aircraft attitude information. He was also recognized for his significant contributions to flight safety education.

The TSAS was first conceived in 1989. It has successfully flown in the T-34, UH-60, and MH53 aircraft, and in the CV-22 and AH-64 simulators. CAPT Rupert's work  
*See RUPERT, p. 702.*



RUPERT, from p. 701.

on spatial disorientation (SD) and the TSAS have been presented numerous times at the Aerospace Medical Association's Annual Scientific Meeting and has been featured in national publications, including National Geographic, Aviation and Space Technology, and Newsweek. His work has been documented on two "Discovery Channel" shows.

Born in Ontario, Canada, in 1947, CAPT Rupert earned a B.Sc. in 1970 and an M.D. in 1982 from the University of Toronto. He received his M.Sc. and Ph.D. degrees from the University of Illinois in 1974 and 1979, respectively. For the past 20 years, he has been recognized as the leading Navy expert on SD. He has completed investigations and analyses of over 12 mishaps for the U.S. Navy and Marine Corp and the National Transportation Safety Board. The results from his investigations and analyses have been used in mishap board reports, JAG investigations, and congressional hearings.

CAPT Rupert was also responsible for conceiving, designing, and developing the Visual Vestibular Sphere Device (VVSD) at the Naval Aeromedical Research Laboratory. The VVSD is a one-of-a-kind, world-class research device consisting of an 11-foot diameter sphere that can be rotated about the Earth vertical or horizontal axis with a subject inside and capable of being rotated about the same axis under independent control. The VVSD was built to aid virtual reality research efforts in examining the effects of relative foreground to background motion on the ability of pilots to track targets. It also permits the ability to objectively compare the effectiveness of one virtual reality display against another.

CAPT Rupert has served as an instructor and supervised four Ph.D. students in SD-related theses. His development of instructional videos and coursework related to SD are used internationally. He is a member of the NATO RTO working group on SD and represents the Navy on the Air Standards Coordinating Committee of the five English-speaking nations.



**WON CHUEL KAY AWARD**

**Dwight Holland, M.S., M.S.E., Ph.D.**

*Established by the Korean Aerospace Medical Association in honor of Won Chuel Kay, M.D., the former Surgeon General of the Korean Air Force, founder and first Medical Director of Korean Airlines and first President of the Korean Aerospace Medical Association. This Award is presented annually to a member who has made outstanding contributions to international aerospace medicine. The award was established and is sponsored by the Korean Aerospace Medical Association.*

Dwight Holland, M.S., M.S.E., Ph.D., is the recipient of the 2005 Won Chuel Kay Award. Dr. Holland has worked tirelessly with colleagues internationally in the aerospace medicine and human factors communities to organize and chair over 30 scientific sessions for international scientific research sessions on topics ranging from Aerospace Human Factors/Space Medicine and Aviation

Safety-related topics to supporting Systems Engineering improvements that relate to Human-Systems interfacing the world over. His work in the Air Force Research Laboratory's International Office at the USAF Office of Scientific Research earned him the Commander's "Top Dog" status there in 2001. Additionally, through various USAF Offices, he and the Slovenian State Secretary of Defense conceived of the idea for starting a Slovenian/former Yugoslav Republics scientific conference in Aerospace Medicine/Human Factors for interested parties in the Balkans region in early 2002. The conference that grew from this initial discussion, led by the Slovenians with cooperation from all parties in the region, is called the Potocnik and Rusjan Memorial Days conference, with particular leadership in developing the conference by AsMA Member Dr. Tomaz Kozelj. Slovenia has since become one of NATO's newest member states. Dr. Holland is the second American to be named a member of the Slovenian Aerospace Medical Association.

Dr. Holland is currently a USAF Reserve Officer assigned to the 311th Human Systems Wing's Performance Enhancement Division at Brooks City-Base in San Antonio, TX. He has owned his consulting business in Systems Management/Human Factors Engineering for more than 15 years, and he co-developed the first prototype Ergonomics program for international corporate giant General Electric in 1990 as a test case, with later adoption and incorporation throughout much of the GE family of business units.

Dr. Holland served as an instructor and curriculum developer in the crew systems interface area at the Navy Test Pilot School at Patuxent River, MD. He was the first-ever reserve instructor attached to the U.S. Navy (USN) Test Pilot School. He co-developed and taught the first Crew Systems Analysis curriculum for the USN Test Pilot School there in 2000-2001.

Dr. Holland was recently assigned to the USAF Office for Scientific Research as an International Program Manager in the Human Effectiveness and Space Systems areas. In that assignment, he has also served as a USAF liaison to the Office of Naval Research for Internationally-related Bioterrorism issues, and his office directly supported the October 2003 Western Hemisphere high-level governmental conference on mitigating Bioterrorism, which was held in Mexico. This was the first-ever conference of by-invitation high-level delegates with regard to this pressing issue in the Western Hemisphere with selected senior governmental participants representing nearly every country in the Western Hemisphere.

Dr. Holland is a fully-qualified USAF Acquisitions/Financial Officer, and is a graduate of USAF Pilot Training. He is also a commercial type-rated jet pilot with over 2,000 hours of flight time in 35+ aircraft, including research flight test engineering work. While at the USAF Office for Scientific Research's International Office, he recently served as the Technical Co-Chair for the largest international Systems Engineering Conference ever held, and recruited very senior U.S. government figures to participate in a special "leadership and senior governmental track" within the conference. He also created new sessions within the international conference on topics such as Human/Systems interfacing, Robotics, and Leadership matters that had been largely neglected in the past in that community.

*See HOLLAND, p. 703.*

HOLLAND, from p. 702.

Dr. Holland holds Master's degrees in both Geophysics and Systems Engineering, and a Ph.D. in Human Factors and Systems Engineering, all from Virginia Tech. He currently serves as an elected member of the Virginia Tech Alumni Association Board of Directors. While at Virginia Tech, he was selected by the National Polar Research Board Chairman to participate in a Glacio-Geophysical Research Expedition to the Antarctic. At remote field sites throughout the Ross Ice Shelf, trans-Antarctic Mountain region, and in Marie Byrd Land, the team tested the first functional radar for ice thickness/structure studies on a specially outfitted Twin Otter research aircraft. Dr. Holland was responsible for the Gravity/Magnetics studies, and first use of Global Satellite Positioning Systems (GPS) for Antarctic scientific surveys. Dr. Holland was awarded the Antarctic Service Medal by the National Science Foundation "...for valuable contributions to exploration and scientific achievement" for his geophysical research contributions. Results from this and other international teams' work appeared as the cover issue of a Scientific American article on the Antarctic in late 2003.

Dr. Holland received the 2002 Stanley N. Roscoe Award from the Aerospace Human Factors Association (AsHFA) for his dissertation on dynamic peripheral visual acuity under various levels of workload and verbal intrusion. He served as one of several co-authors on the AsMA 2005 Tuttle Award research team in the areas related to all-night flying fatigue. In this role, Dr. Holland supported Principal Investigator and primary author LTC Mike Russo, MC, USA, as the research test pilot, and aided with the research design of the study that has resulted in several publications and presentations.

In the past he has held the prestigious Cunningham Fellowship at Virginia Tech and has been a NASA/Stanford Faculty Fellow. Dr. Holland has over 85 academic presentations and publications to his credit. He has served as a reviewer and co-editor for many different organizations in business, systems engineering, medicine, and human factors engineering. During his academic career, he was selected to eight academic honorary or leadership societies, including Phi Kappa Phi, Tau Beta Pi, Sigma Xi, and Omicron Delta Kappa.

Dr. Holland is beginning a 1-year term as the President of the Space Medicine Branch, as well as serving as its Corporate Sponsor/Finance Chair. He just completed a two-year term as the President of the International Association of Military Flight Surgeon Pilots (IAMFSP), and has also recently served a year on the AsMA Executive Committee. At various times, he has served the AsMA community on the Nominations Committee, and has served on the AsMA Scientific Program Committee for nearly 10 years, among many other AsMA roles.

In his non-scientific life, Dr. Holland has finished a term as the Supervisory Committee Chair of the fastest growing Credit Union in Virginia, and works often on the weekends during winter as a professional ski instructor.

Dr. Holland's dedication to cooperative international aerospace medicine, human factors, and the international community make him a worthy recipient of the 2005 Won Chuel Kay award.



#### BOOTHBY-EDWARDS AWARD

Ralph G. Fennell, M.D., M.S.

*Established in memory of Walter M. Boothby, M.D., pioneer aviation medicine researcher, and Howard K. Edwards, M.D., clinical practitioner of aviation medicine, this award is presented annually for outstanding research and/or clinical practice directed at the promotion of health and prevention of disease in professional airline pilots. (The separate Boothby and Edwards Awards were given annually 1961-73, and then alternately until 1985.) Sponsored by Harvey W. Watt and Company.*

Ralph G. Fennell, M.D., M.S., is the 2005 recipient of the Boothby-Edwards Award for promotion of health and prevention of disease in professional airline pilots. For the past 32 years, as a Regional Flight Surgeon for United Airlines, Dr. Fennell has made pilots aware of the importance of preventive medicine in career protection through both yearly flight physical exams and lectures on preventive medicine to all new hire pilots. He plays a major role in airline employee assistance programs, has taught over 100 management classes in Reasonable Suspicion testing and helping airline employees, and has served as a mentor for many new United Airlines flight surgeons. He has established an outstanding clinical practice in aviation medicine and has performed over 15,000 yearly flight physicals.

Dr. Fennell was born in Pittsburgh, PA, on September 9, 1938. He is a graduate of Washington and Jefferson College, Washington, PA, and the University of Pennsylvania School of Medicine, Philadelphia, PA. Following his internship at Emanuel Hospital in Portland, OR, he served on active duty with the U.S. Army for 4 years as a Senior Flight Surgeon, and for 7 additional years in the U.S. Army Reserve. He held the rank of Lieutenant Colonel at the time of his separation.

Following his active duty tour, he completed a residency in Aerospace Medicine at Ohio State University, where he earned a Master of Science degree in Preventive Medicine. He then joined United Airlines, where he has been employed for almost 33 years. His career has included assignments in Washington, DC, Cleveland, and Chicago, and since 1995 he has been Manager of the Regional Medical Department in Denver.

Dr. Fennell has been a Senior Aviation Medical Examiner for the FAA since 1972. Although he is not an active pilot at present, he holds a Commercial Pilot license with airplane single and multi-engine land and instrument ratings, which are an asset in his daily work with professional pilots. He has been certified as a Specialist in Aerospace Medicine by the American Board of Preventive Medicine since 1973, and he was certified as a DOT Medical Review Officer in 2001. One of the most rewarding aspects of his career has been working in United Airlines' program supporting employees who are recovering from chemical dependency. He has helped over 60 pilots address their alcohol problems and assisted

*See FENNELL, p. 704*

FENNELL, from p. 703.

them in their recovery process to return to flying.

Dr. Fennell is a Fellow of the Aerospace Medical Association, where he has served on numerous committees and was elected to a 3-year term on the Council in 2001. He is a long-standing member of the Airline Medical Directors Association (AMDA), where he has held many offices, including serving as President in 2003. In 2001 he received the AMDA George J. Kidera Award for Outstanding Achievement in the Field of Aviation Medicine. He is also a Fellow of the International Academy of Aviation and Space Medicine, where he was elected to serve on the Scholarship Committee, and is a member of the American Medical Association.



**ARNOLD D. TUTTLE AWARD**

**Michael B. Russo, M.D.**

*Established in memory of Col. Arnold D. Tuttle, USAF, MC. Awarded annually for original research that has made the most significant contribution toward the solution of a challenging problem in aerospace medicine and which was published in Aviation, Space, and Environmental Medicine. Sponsored by Wyle Laboratories.*

LTC Michael B. Russo, MC, USA received the 2005 Arnold D. Tuttle Award for his role as lead author of the article "Visual Neglect: Occurrence and Patterns in Pilots in a Simulated Overnight Flight" (*Aviat Space Environ Med* 2004; 75:323-32). This article presented the results of a study that evaluated visual perception during a simulated overnight flight of 12.5 hours in order to test for visual neglect.

LTC Russo was born in Manhattan, NY, in 1959. He earned his Bachelor of Arts degree in geology at Princeton University. He obtained his commission through the Princeton and Fordham University Army ROTC programs in 1982 where he earned Distinguished Military Graduate honors. He received his Doctorate of Medicine degree from The Chicago Medical School in 1986. The following year he completed his internship at the New York Medical College, Metropolitan Hospital Center, New York City. He completed a 3-year residency in Neurology at New York University, Bellevue Medical Center, NY, in 1993. In 1998 LTC Russo completed a Fellowship in Sleep Neurophysiology at the Division of Neuropsychiatry, Walter Reed Army Institute of Research, in Washington, DC.

LTC Russo is a graduate of the Army Command and General Staff College, Officer Basic and Advanced Courses, the Medical Care of the Chemical and Biological Casualty and the Combat Casualty Care Courses, Medical Strategic Leadership Program, and the Flight Surgeon Primary Course. He is currently assigned as Director, Aircrew Health and Performance at the U.S. Army Aeromedical Research Laboratory, Fort Rucker, AL. His most recent previous assignment was as Director of Division of Neurosciences at the Walter Reed Army

Institute of Research in Washington, DC, where he directed a research program that included neuroprotection and optimization of alertness and cognition in sustained operations. In 2001 he was awarded the Chairman of the Joint Chiefs of Staff Award for Excellence in Military Medicine.

His past assignments and duties include: Staff Physician, 98th General Hospital, Emergency Department, Nuernberg, Germany; Brigade Surgeon, 2nd Brigade, 1st Armored Division, Erlangen, Germany; Field Surgeon, 42nd Infantry Division, New York State Army National Guard; Chief Neurology, 121 Evacuation Hospital, Seoul, Korea; Director Neurological Research, Brooke Army Medical Center, Fort Sam Houston, TX; General Medical Officer-Division Mental Health Officer, 1st Cavalry Division, Kuwait; Assistant Professor, Neurology, Uniformed Services University of the Health Sciences, and Chief of the Department of Biomedical Assessment, Division of Neuropsychiatry, Walter Reed Army Institute of Research.

LTC Russo is licensed to practice medicine in New York and Maryland. He is certified by the American Board of Psychiatry and Neurology. He has been credentialed to practice medicine by Walter Reed Army Medical Center, Department of Neurology, and Lyster Army Health Clinic at Fort Rucker. He is an active member of the Aerospace Medical Association, the American Academy of Neurology, the American Sleep Research Society, the European Sleep Research Society, the American Academy of Sleep Medicine, where he is Chair of the Academy's Sleep Deprivation section, and the American Legion.

LTC Russo's military awards include the Meritorious Service Medal with Oak Leaf Cluster, the Joint Service Commendation Medal, the Joint Service Achievement Medal, the Honduran Medal of Merit, the Army Commendation Medal with 3 Oak Leaf Clusters, the Army Achievement Medal with Oak Leaf Cluster, the Armed Forces Expeditionary Medal and the Joint Meritorious Unit Award (Kuwait), National Defense Service Ribbons, Overseas Service Ribbons, and the Expert Field Medical Badge and Army Flight Surgeon Badge.



**JOHN PAUL STAPP AWARD**

**Susan P. Baker, M.P.H., Sc.D. (Hon.)**

*This award was established and sponsored by Environmental Tectonics Corporation to honor Col. John Paul Stapp, USAF(Ret.). The award is given annually to recognize outstanding contributions in the field of aerospace biomechanics and to promote progress in protection from injury resulting from ejection, vibration, or impact.*

Susan P. Baker, M.P.H., Sc.D. (Hon.), was the recipient of the 2005 John Paul Stapp Award for her pivotal role in establishing injury prevention and control as a scientific

*See BAKER, p. 705.*



BAKER, from p. 704.

discipline. She has pioneered the application of the public health model to aviation safety research and training as well as contributing to a better understanding of the determinants of occupant survival in aviation crashes, the etiology of pilot error, and the relationship between pilot aging and safety performance. She is recognized as one of the most pre-eminent researchers and teachers in injury epidemiology.

Dr. Baker earned her B.A. in zoology from Cornell University in 1951 and her M.P.H. in epidemiology from The Johns Hopkins University in 1968. She is currently Professor of Health Policy and Management at The Johns Hopkins School of Public Health. She holds joint appointments in Environmental Health Sciences and in the departments of Pediatrics and Emergency Medicine at the Johns Hopkins Medical School. An epidemiologist specializing in injury prevention, she was the first Director of the Johns Hopkins Injury Prevention Center.

Professor Baker is a member of the Armed Forces Epidemiological Board. She served as vice chair of the National Academy of Science's Committee on Trauma Research and as president of the American Association for Automotive Medicine. She is credited with the development of the Injury Severity Score, which has been used as the standard tool for measuring the severity of injury by clinicians and researchers worldwide in the past three decades. Her research has addressed many aspects of aviation safety as well as motor vehicle crashes, occupational injuries, and other injury prevention topics. She has published eight textbook chapters, more than 200 articles in medical and public health journals, magazine articles, and three books including *The Injury Fact Book*, the most widely referenced text in the field of injury prevention and control.

Her interest in aviation safety led her to become a licensed private pilot at the age of 56. She has taken primary and advanced courses in Airplane Crash Survival Investigation and served on FAA-sponsored expert panels on shoulder restraint use and on the Age 60 Rule. Her research has included crashes related to mountain flying, instructional flights, commuter flights, and air medical transport. Her Aviation Safety course at Johns Hopkins has encouraged many students to publish articles in the field.

Susan Baker's contributions have led to awards from the American Public Health Association, the Association for the Advancement of Automotive Medicine, and the American Association for the Surgery of Trauma, among others. She is recipient of the prestigious Charles A. Dana Award for Pioneering Achievements in Health. In 1998 the University of North Carolina awarded her an honorary Doctor of Science degree. She is especially pleased to have been named "Bad Guy of the Month" by *Road Rider* motorcyclist magazine.

She is a Fellow of the Aerospace Medical Association, has served on the Advisory Editorial Board twice and as co-chair of the Aviation Safety Committee, and is an honorary member of the Wing.

Professor Baker is an ardent advocate of policy changes that will prevent injuries. Much of her teaching and research is designed to influence the legislators, administrators, media representatives, and others whose decisions can determine the likelihood of injury for thousands of people.



#### THEODORE C. LYSTER AWARD

John D. (Jack) Hastings, M.D.

*This award was established to honor the memory of Brig. Gen. Theodore C. Lyster, the first Chief Surgeon, Aviation Section, United States Signal Corps. It is given annually for outstanding achievement in the general field of aerospace medicine. Sponsored by Lockheed-Martin Space Operations.*

John D. (Jack) Hastings, M.D., is the 2005 recipient of the Theodore C. Lyster Award. He was recognized for his leadership and expertise in aerospace medicine, having gained world-wide recognition for his many contributions, especially in the field of aviation neurology. He has published extensively and frequently serves as a consultant to governmental agencies.

A Chicago, IL, native, Dr. Hastings entered the pre-medical program at Notre Dame University in 1958. Before earning his degree, he entered the St. Louis University School of Medicine in 1961 and received his M.D. degree in 1965. Following a residency in neurology at the Mayo Clinic he entered the Army, serving 1 year in Viet Nam as one of only two neurologists. He was awarded the Bronze Star. He was then transferred to Fitzsimmons Army Hospital in Denver, CO, as Assistant Chief of Neurology. When he was discharged in 1971, he returned to Chicago where he opened a private practice and became a part-time clinical instructor at the Loyola University Stritch School of Medicine. He was board certified in neurology in 1972 and continues that practice. He became board certified in aerospace medicine in 1999.

Dr. Hastings became an Aviation Medical Examiner (AME) in 1976. He has been a lecturer in aviation neurology for the FAA AME seminars for over 20 years and has served as a consultant to the Federal Air Surgeon since the late 1990's. In this capacity he has written over 800 opinions regarding aeromedical disposition of pilots with neurological disorders. He also frequently consults with the National Transportation Safety Board and the Department of Justice as well as serving as an expert witness. He has advised the Air Traffic Control Specialist community regarding eligibility for air medical certification for those with neurological disorders. He has consulted with the Airline Pilots Association, the Allied Pilots Association, and several major air carriers regarding complex cases. He has published extensively and has authored chapters in standard textbooks including "Fundamental of Aerospace Medicine" and "Clinical Aviation Medicine" and contributed to several AsMA supplemental publications including "Medical Guidelines for Airline Travel."

Dr. Hastings serves as an Adjunct Assistant Clinical Professor of neurology at the Oklahoma University School of Medicine and an Adjunct Assistant Clinical Professor in the Aerospace Medicine residency program at University of Texas Medical Branch, Galveston. He is past president of the Civil Aviation Medical Association

*See HASTINGS, p. 706.*

HASTINGS, from p. 705.

and serves on the AsMA Council and Executive Committee. He received AsMA's John A. Tamisiea Award in 1996. He is also a commercial pilot with multi-engine and instrument rating with over 5000 hours of flight experience.



#### HARRY G. MOSELEY AWARD

Lt. Col. Donald J. White, USAF, BSC

*Established in memory of Col. Harry G. Moseley, USAF, MC, in recognition of his material contributions to flight safety. It is given annually for the most outstanding contribution to flight safety. Sponsored by Lockheed-Martin Corporation.*

Lt. Col. Donald J. White, USAF, BSC, is the recipient of the Harry G. Moseley Award for 2005. He was recognized for his contributions to USAF and NASA flight safety. He revolutionized the USAF safety mishaps analysis system, which made the USAF methodology compatible with that of the U.S. Navy. In 2003, Lt. Col. White was hand-picked by the USAF Chief of Safety to participate in the NASA Columbia Accident Investigation Board, where he was recognized for his outstanding contributions.

Lt. Col. White has been formally involved with safety and mishap prevention as an aerospace physiologist for 20 years. As Director of Human Factors Investigation and Analysis at the Headquarters Air Force Safety Center at Kirtland Air Force Base, Lt. Col. White directed and executed all human factors and human performance functions of the Center for prevention and investigation of mishaps and events. He was responsible for identification of hazards and risk and for developing intervention and risk mitigation programs for all Air Force human performance and human factors issues and has investigated 20 mishaps or events.

In 2002, he developed a more robust identification and risk analysis process within the USAF Human Factors Taxonomy, demonstrating that the USAF Taxonomy could be incorporated into a system that increased the scope of human factors investigations to include a critical look at both active and latent human error. In 2003, the USAF Chief of Safety recognized Lt. Col. White's efforts, as well as his human factors and human performance expertise, when he requested Lt. Col. White to be part of the Columbia Accident Investigation Board support staff.

As part of the high-profile Crew Survivability Working Group, Lt. Col. White led 17 engineers and medical members as the Columbia Accident Investigation Board representative. His service as an investigator was instrumental in crafting recommendations to improve the safety and effectiveness of NASA and ensure the future success of America's manned spaceflight program.

Lt. Col. White has written articles for *Flying Safety* and has made numerous presentations about acceleration, spatial disorientation, human factors, and human

performance at the Aerospace Medical Association's Annual Scientific Meeting. He recently became active in the Defense Safety Oversight Council of the Aviation Safety Improvement Task Force, which aims to reduce military mishaps by 50%.

Currently assigned to the Pentagon, he is also an adjunct faculty member to the U.S. Air Force School of Aerospace Medicine, and is a military high-altitude, low-opening parachute jumpmaster with more than 3,000 military parachute jumps. Lt. Col. White holds an M.A. in Physiology from Kent State University, and B.S. in Physiology from Frostburg State University.

In summary, Don White's dedication to aviation safety made him "a natural" to receive the Moseley Award. His devotion to safety investigation, operation safety, human factors and human performance enhancement has been key to the effectiveness of aviation and operational safety.



#### ERIC LILJENCRANTZ AWARD

Dr. med. Peter W. Frank

*The Eric Liljencrantz award was established in memory of CDR Eric Liljencrantz, MC, USN, whose brilliant career in aviation medicine was cut short by his death in an airplane accident in 1942. It is given annually to honor excellence as an educator in aerospace medicine, or basic research into the problems of acceleration, altitude, or weightlessness. Sponsored by The Aerospace Medical Association.*

Dr. med. Peter W. Frank received the 2005 Eric Liljencrantz Award for his outstanding accomplishments in educating military flight surgeons, civilian physicians, and assistant personnel in aviation medicine, physiology, and regulation for more than 25 years. He has performed more than 1000 altitude chamber flights and rapid decompressions to demonstrate altitude physiology to pilots. He has also implemented a course that trains civilian physicians in aviation medicine and regulations.

Born in 1948 in Munich, Germany, Dr. Frank attended the School of Medicine at Ludwig-Maximilian-University Munich from 1969 to 1975. He also spent three months each in 1971 and 1973 at Ohio State University. He then served in the German Air Force as a flight surgeon from 1977-1996, during which he was stationed at the Boelcke-Wing Noervenich and the GAF Institute of Aviation Medicine at Fürstenfeldbruck.

He trained in aviation medicine at the RAF Institute of Aviation Medicine in Farnborough, UK, in 1987, and at USAFSAM, Brooks City-Base, TX, in 1988. Since 1996, he has worked as a general practitioner and senior Aviation Medical Examiner for the JAR and the FAA in private practice in Groebenzell, Germany. He has given training courses and lectures in aviation medicine for flight surgeons, AMEs, pilots, and students at University Munich and Heidelberg, as well as serving as manager of the annual meetings for continuous training in aviation medi-

*See FRANK, p. 707.*



FRANK, from p. 706.

cine for Bavaria, Saxonia, and Baden-Württemberg.

Dr. Frank has published many articles and made many presentations at the AsMA Annual Scientific Meeting, the International Congress of Aviation and Space Medicine, and others. He is a member of the German Society for Air and Space Travel Medicine and has been a Fellow of AsMA since 1995.



**SIDNEY D. LEVERETT, JR.**  
**ENVIRONMENTAL SCIENCE AWARD**

**Jan Risberg, Ph.D.**

*Established in memory of Sidney D. Leverett, Jr., Ph.D., this Environmental Science Award is presented annually to an individual who has made a significant contribution in the field of environmental medicine through a publication in Aviation, Space and Environmental Medicine, or by activities conducted in support of aerospace systems operation. Sponsored by Environmental Tectonics Corporation.*

Jan Risberg, Ph.D., was awarded the 2005 Sidney D. Leverett, Jr., Environmental Science Award for his article "Atmospheric Changes and Physiological Responses During a 6-Day 'Disabled Submarine' Exercise" (*Aviat Space Environ Med* 2004; 75:138-49). In his paper, Risberg investigated the atmospheric changes and physiological responses during a "disabled submarine" trial in order to establish whether emergency procedures would work acceptably in a real situation and to further the understanding of the effects on sailors of being confined in a disabled sub. The study also assessed the accuracy and practicality of a portable, battery-operated emergency gas analyzer.

Jan Risberg was born in Norway in 1960. After finishing medical school and his internship, he completed his Ph.D. in medical physiology with a thesis on the effects of increased ambient pressure on organ blood flow and cardiac function. He was trained in Diving Medicine in the Royal Norwegian Navy 1987 and was trained as a flight surgeon in the Royal Norwegian Air Force 1988. He has worked as a Diving and Submarine Medical Officer, presently with a rank of Surgeon Commander, at the Office of Diving and Submarine Medicine at Haakonsvern Naval Base (Bergen) since 1987. Since 1991, he has additionally worked as a diving physician at NUI (previously NUTEC) in Bergen. From 1994 to 2002 he was a consultant in hyperbaric medicine at the Department of Occupational Medicine, Haukeland University Hospital, where he still works as a duty diving physician for the hospital.

Dr. Risberg is the responsible diving physician for a number of Norwegian oil companies and in-shore diving contractors. He serves as a duty diving physician for commercial North Sea offshore (saturation) diving. He is the advisory diving physician for the Norwegian Diving Federation and provides medical advice for other national commercial and recreational diving agencies. A

significant part of his work is related to the examination of divers and submariners, investigating acute illnesses and the long-term health effects of diving and submarine service. In 2000 he served the Norwegian rescue team in the Barents Sea during the effort to rescue the Russian submarine Kursk. Two years later he organized a scientific study, involving international and multidisciplinary participation, on a 7-day experimental submarine survival study.

Dr. Risberg has published scientific articles, reports, proceeding articles, and abstracts in hyperbaric physiology and diving medicine. He has been involved, as a senior scientist and/or medically responsible, in all simulated experimental dives at NUI since he began his work there. Recently, his scientific focus has been directed to the measurement of venous gas emboli during hypo- and hyperbaria, and experimental studies related to survival in a distressed (sunken) submarine. He co-authored the revised Norwegian decompression tables. He is a member of the Norwegian Hyperbaric Medical Society, the Norwegian Aeromedical Society, the European Underwater and Baromedical Society and the Undersea Hyperbaric Medical Society (UHMS). He is a permanent member of the UHMS Diving Committee and has been a member of the scientific committee of previous meetings within these organizations. He is the Norwegian medical representative to NATO's Underwater Diving Working Group and Submarine Escape and Rescue Working Group. Dr. Risberg is a faculty member of the annual Scandinavian course in diving medicine and a senior lecturer of national courses in diving medicine at University, Navy, and Technical Colleges.



**JULIAN A. WARD AWARD**

**Kimberley R. Bradley, M.D., M.P.H.**

*Established and sponsored by the Society of U.S. Air Force Flight Surgeons in memory of its first member to lose his life in an aircraft accident, and to honor all flight surgeons whose lives are lost in the pursuit of flying activities relating to the practice of aerospace medicine. The award is given annually for superior performance and/or outstanding achievement in the art and science of aerospace medicine during residency training.*

Major Kimberly R. Bradley, USAF, MC, was awarded the 2005 Julian E. Ward Award for her exemplary academic leadership at the USAF School of Aerospace Medicine. The field research she has done on fatigue in C-5 aircrews has directly and significantly optimized aircrew performance enhancement and mission effectiveness. During her aerospace medicine practicum year, she presented twice at the 2004 Aerospace Medical Association's Annual Scientific Meeting, published a "You're the Flight Surgeon" article in *Aviation, Space, and Environmental Medicine*, and took on numerous leadership roles within the training program. As a resident, she also demonstrated a thorough understanding

*See BRADLEY, p. 708.*

BRADLEY, from p. 707.

of subject material. Her presentation on environmental perchlorate earned perfect scores, demonstrating thorough research, presentation caliber, and expert handling of questions.

Major Bradley has repeatedly shown a willingness to take on extra duties such as flying coordinator for the local C-5 squadron and air evacuation squadron, residency program webmaster, and co-author of the Flight Surgeons Checklist. During an operational rotation in Qatar, she worked aggressively to mitigate the heat load placed on personnel working on parked aircraft. Her efforts lead to air conditioning units being placed in parked C-130 and KC-135 aircraft, effectively reducing risk of heat injury to ground and aircrews.

Major Bradley is an experienced U.S. Air Force family medicine physician and flight surgeon with a solid reputation as an astute clinician and committed officer. She excelled during her M.P.H. program at Tulane University, New Orleans, LA, achieving a GPA of 3.89. She was inducted into the Public Health Honor Society, Delta Omega Society, in 2003, after being one of only two physicians nominated from Tulane.

Major Bradley exemplifies the qualities of superior performance during residency training that are associated with the Julian A. Ward Award.



**JOHN A. TAMISIEA AWARD**

**Graeme Maclarn, M.B., B.S.,  
D.Av.Med., M.Eng.Sci., FRAeS**

*This award was established and sponsored by the Civil Aviation Medical Association in memory of John A. Tamisiea, M.D. The award is given annually to an aviation medical examiner or other individual who has made an outstanding contribution to the art and science of aviation medicine in its application to the general aviation field.*

Graeme Maclarn, M.B., B.S., D.Av.Med., M.Eng.Sci., FRAeS, received the 2005 John A. Tamisiea Award for his outstanding contribution to the art and science of aviation medicine in its application to the general aviation field. Dr. Maclarn is an aviation medicine consultant who practices in Sydney, Australia. He has been an Aviation Medical Examiner (AME) for the Australian Civil Aviation Authority for over 25 years and is one of the most experienced AMEs in Australia. He has also served as a medical examiner for the FAA and Transport Canada, and for the Civil Aviation Authorities of New Zealand and South Africa. He has acted as an aviation medicine consultant to Japan Airlines and South China Airlines and also the NSW Branch of the Guild of Air Pilots and Air Navigators. He has lectured in Australia and around the world on crash-worthiness and crash investigation.

Born in 1952, Dr. Maclarn received his initial medical degree (M.B., B.S.) from the University of NSW, Sydney in 1977. His initial aviation medicine training was at the

Royal Australian Air Force Institute of Aviation Medicine. Following hospital training in surgery and pediatrics, he was appointed a Visiting Medical Officer to the Coffs Harbour Base Hospital until 1981. In 1982 he began an aviation medicine practice on Sydney's Bankstown Airport where he continues to practice.

From 1982 to 1990 Dr. Maclarn was an Honorary Clinical Teacher in The School of Community Medicine at the University of NSW. During that time he developed an Aviation Medicine Elective for Undergraduate Medical Students. From 1986 until 1994 he was the Aviation Medicine Instructor for the Associated Diploma in Aviation Medicine at the Sydney Institute of Technology where he taught aviation medicine to candidates for the Commercial and Airline Transport Pilot Licence. He also taught Aviation Medicine to flying instructors as part of the Flying Instructors Refresher Course Program from 1985 until the program ceased in 1995.

He has advanced his own knowledge and skills throughout his career by undertaking and acquiring further tertiary qualifications. He studied at the Royal Air Force Institute of Aviation Medicine, Farnborough, and obtained his Diploma in Aviation Medicine from the Royal College of Physicians of London, in 1990. In 1997 he received a Master in Engineering Science, majoring in Aerospace Engineering, from the University of NSW. His thesis investigated the "Finite Element Modelling of Injuries Caused by Aircraft Impact."

In 1992, with the withdrawal of funding for Aviation Medicine Examiner Training, Dr. Maclarn established and became foundation President of the Aviation Medical Society of Australia and NZ (New South Wales Branch) Inc., now Aviation Medicine NSW Inc., a position he holds to this day. In this role, he has been responsible for organizing the continuing professional development training of Aviation Medicine Examiners in New South Wales. His personal efforts to bring many truly eminent aerospace experts to Australia to lecture at meetings has enriched the professional life and knowledge of Australian AMEs and has been instrumental in maintaining and improving the standard of aviation medical assessments in Australia. Dr. Maclarn himself has been invited to speak at many scientific meetings in Australia and overseas, including the Aerospace Medical Association meetings, Civil Aeromedical Association meetings, FAA seminars, and Australian conferences.

A member of AsMA since 1985 and an Associate Fellow since 1997, Dr. Maclarn continues to be involved in AsMA activities through Education and Training and Aviation Safety Committees, most recently on the Position Paper on the Age 60 Rule, published in *Aviation, Space, and Environmental Medicine*. He is a member of the Australasia Society of Aerospace Medicine, International Society of Air Safety Investigators, and a Fellow of the Royal Aeronautical Society. He was elected to membership in the International Academy of Aviation and Space Medicine in 2000.

He holds both fixed and rotary wing pilot's licences, Multi Engine Command Instrument, Aerobic and Formation ratings, and has about 8500 flying hours. He is a past New South Wales Aerobatics Champion.



**MARY T. KLINKER AWARD**

**Col. Penny Pierce, USAF, NC**

*Established by the Flight Nurse Section in 1968, this award became an official AsMA award in 1972. In 1978 it was renamed in memory of Mary T. Klinker, who was killed in a C-5A crash while performing a humanitarian mission. The award is given annually to recognize significant contributions to, or achievements in, the field of aeromedical evacuation. Sponsored by the Aerospace Nursing Society.*

Col. Penny Pierce, Ph.D., RN, USAFR, NC, was presented the 2005 Mary T. Klinker Award for her research in the health and well-being of military women who served during Desert Shield and Desert Storm and the implementation of the results of that research in ongoing pre- and post-deployment programs. These programs help maintain the stability of aeromedical crewmembers and enhance retention and stress reduction so that personnel can meet the many challenging mission demands they face. In 1986, as the first flight nurse selected as commander of an aeromedical squadron, she also paved the way for other women to achieve command positions. Col. Pierce is currently an IMA attached to the Uniformed Health Services University in Bethesda, MD.

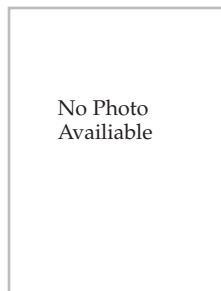
Col. Pierce earned an A.D. from Brunswick Junior College, Brunswick, GA, in 1969, and a B.S.N. from the University of Florida, Gainesville, FL, in 1972. She went on to earn an M.S.N. from Yale University, New Haven, CT, in 1975, and her Ph.D. from the University of Michigan, Ann Arbor, in 1985.

Col. Pierce has been a flight nurse since 1976 and has held command positions at Selfridge ANGB, MI, and McGuire AFB, NJ. She has over 32 years of military service, which includes a tour of duty in Saudi Arabia during the Persian Gulf War. While serving in Saudi Arabia, Col. Pierce established training for nearly 1500 aeromedical evacuation personnel deployed throughout the theatre.

In her civilian occupation, she is an Associate Professor in the School of Nursing at the University of Michigan and a Faculty Associate at the Institute for Social Research. In this capacity, Colonel Pierce has received competitive funding from the TriService Nursing Research Program since 1992 to study the health, well-being, and retention of Air Force women following service in the Persian Gulf War. Results of these studies have provided data to the Presidential Commission on Gulf War Illness, Congressional Testimony regarding post-deployment health, and a variety of military and professional presentations and publications. Selected findings from this report have influenced policy regarding the health and well-being of military women, many of them in aeromedical evacuation. She was recently awarded three additional grants to study the physical and emotional health, resilience, and retention of Air Force members serving in the current Operations Enduring Freedom and Iraqi Freedom. Having given up

an academic sabbatical to devote time to mobilizing unit members, she leads by example, ensuring mission success by helping reduce stress levels of deployed AE personnel due to sudden disruption of civilian careers, as well as to ease their assimilation back to civilian life following deployment. A highly committed individual whose leadership style is motivating and inspiring, Col. Penny Pierce is a mentor, as well as a researcher, leader and crewmember.

Col. Pierce is an Associate Fellow of the Aerospace Medical Association and has been awarded the Brigadier General Claire Garrecht Award for the Most Outstanding Scientific Paper Related to Aerospace Nursing in 1996, and the Brigadier General E.A. Hoefly Award for Outstanding Contributions to the Field of Nursing in 1998. She recently won the Federal Nursing Service Essay Award from the Association of Military Surgeons United States in 2004. She is a graduate of the Air Command and Staff College as well as the Air War College.



**RAYMOND F. LONGACRE AWARD**

**Joseph D. Callister, M.A., Ph.D.**

*Established to honor the memory of MAJ Raymond F. Longacre, MC, USA. It is given annually for outstanding accomplishment in the psychological and psychiatric aspects of aerospace medicine. Sponsored by Aeromedical Innovations.*

Lt. Col. Joseph D. Callister, USAF, BSC, received the 2005 Raymond F. Longacre Award for his outstanding contributions to aerospace medicine and psychology that have made him an asset in the War on Terrorism. He developed innovative methods for managing combat stress in warfighters located at remote locations, supported repatriated aircrew who had been isolated behind enemy lines, and successfully treated 98% of the combat aviators who had suffered psychological trauma associated with combat losses, aircraft accidents, and operational fatigue.

Lt. Col. Callister earned a Bachelor of Science degree from Brigham Young University and a Master's degree and Doctor of Philosophy from the California School of Professional Psychology in San Diego, California. He was commissioned in the United States Air Force in 1990. After completing a clinical psychology internship at Andrews AFB, MD, he began working as a Staff Psychologist and became the Deputy Chief of Aerospace Psychology and the Chief of Behavioral Medicine at Sheppard AFB, TX.

In 1994, Lt. Col. Callister went to Brooks AFB, TX, to work as the Chief of the Enhanced Flight Screening-Neuropsychiatry program. While there, he began teaching at the USAF School of Aerospace Medicine, assisting NASA with astronaut selection, and conducting aeromedical research. He was honored as USAF Psychologist of the Year in 1996.

*See CALLISTER, p. 710*



CALLISTER, from p. 709.

In 1999, Lt. Col. Callister completed a post-doctoral fellowship in Aviation Psychology at The Ohio State University, and began work at the Air Force Research Laboratory, Wright-Patterson AFB, OH. As the Chief of Information Warfare Research, he conducted psychological operations and human factors research, and he continued to teach and investigate aircraft accidents. He was the Aerospace Psychology Consultant for the Air Force Material Command Surgeon, and in 2000 he was named Air Force Material Command Senior Psychologist of the Year.

In 2001, Lt. Col. Callister moved to Hurlburt Field, FL, where he was assigned to the 16th Operations Support Squadron and also worked as the Psychology Consultant for the Air Force Special Operations Command (AFSOC) Surgeon. During this assignment he deployed twice in support of Operations Enduring Freedom and Iraqi Freedom as the Command Psychologist for a special operations task force and a special operations air component. He was the AFSOC Senior Psychologist of the Year for 2003. He continues to support special operations in his current assignment at Fort Bragg in North Carolina.

Lt. Col Callister's career has highlighted his exceptional skill in special duty selection, psychological assessment and treatment of aircrew, and management of combat trauma in special operations forces. He has shared his innovations with the aeromedical community through peer-review publications, technical reports, lectures, and presentations. He has trained hundreds of aviators, commanders, flight surgeons, physiologists, and psychologists in schools and universities. As one of three fully trained aviation psychologists in the Air Force, he led the development of a career path for this unique specialty, doubled the number of training positions, increased specialty training opportunities, and fielded more capable psychologists. Lt. Col. Callister has repatriated and helped dozens of downed or detained aircrew members return to flying, and taught hundreds of flight surgeons, psychologists, and medics how to support the psychological needs of combat flyers.

Lt. Col. Callister's military decorations include the Meritorious Service Medal with two oak leaf clusters, the Joint Service Commendation Medal with one oak leaf cluster, the Air Force Commendation Medal, and the Air Force Achievement Medal.



**MARIE MARVINGT AWARD**

**David M. Lam, M.D., M.P.H.**

*Established and sponsored by the French Aerospace Medical Association in memory of Marie Marvingt (1875-1963), a pioneer French pilot and surgical nurse who, for more than 50 years, actively and untiringly involved herself in the conception and development of air ambulance services and in the education of the general public regarding their use and benefits. The award is presented annually to honor excellence and innovation in aerospace medicine.*

David M. Lam, M.D., M.P.H., is the first recipient of the Marie Marvingt Award. David Lam is recognized for his excellent aeromedical teaching skills and his outstanding work in aeromedical history. For many years, Dr. Lam has been recognized internationally as an outstanding educator in the field of air ambulance operations, and the innovation with which he incorporates the historical lessons of the past with current operational requirements brings the lessons alive both to professional and non-professional audiences. His long-term dedication, extending across several decades and numerous international boundaries, to improving the use of air ambulances and to ensuring that the history of aviation medicine is not only not forgotten, but is continually used to influence the current art of aviation medicine, is in the best traditions of the example provided by the lady after whom this award is named, Mademoiselle Marie Marvingt.

Dr. Lam was born in 1946 in Pittsburgh, PA. He attended Carleton College, Northfield, MN, where he received a B.A. in Government and International Relations. He received his M.D. degree from the University of Minnesota in 1972, and earned an M.P.H. from the University of Texas in 1979.

Colonel Lam was commissioned in the Medical Service Corps of the United States Army in 1971, and transferred to the Medical Corps in 1972. After completing an internship at Madigan Army Medical Center, he served from 1973-75 in several positions at Yongsan Garrison, Korea. His next tour was as Senior Flight Surgeon, 222nd Aviation Battalion and 172nd Infantry Brigade, Fort Wainwright, AK. Following residency training in aerospace medicine, he was assigned as Aviation Medicine Staff Officer and Chief, Ambulatory Patient Care, at the U.S. Army Health Services Command, Fort Sam Houston, TX. From 1981 to 1991, he served in a variety of positions in California, Alaska, Maryland, and Germany. During Operation Desert Storm, he served as surgeon for a joint air and ground task force that carried out combat operations over northern Iraq. He led the medical aspects of humanitarian and disaster relief operations in Armenia and Tunisia. From 1991-93 he served as Commander of the U.S. Army Medical Department Activity and Cutler Army Hospital at Fort Devens, MA, followed by a rapid return to Europe. He served as surgeon in the 5th Corps in Heidelberg and Frankfurt, Germany, and as Task Force Surgeon for U.S. humanitarian operations in Rwanda and Zaire from 1993-96.

His final military assignment was as Medical Staff Officer on the International Military Staff at Headquarters NATO. In this position, where he served for an unprecedented 5 years at the request of the NATO medical community, he was the impetus for some of the greatest changes in Alliance medical doctrine since its creation. He actively participated in and advised many NATO bodies, including the Senior Group on Proliferation, the Defence Group on Proliferation, the Weapons of Mass Destruction (WMD) Center, the Senior Civil Emergency Planning Committee, and the Joint Medical Committee.

Doctor Lam retired from active duty on July 1, 2001, and now serves as Adjunct Associate Professor at the

*See LAM, p. 711.*

LAM, from p. 710.

Charles McC. Mathias Jr. National Study Center for Trauma and Emergency Medical Services of the University of Maryland School of Medicine. From this position, he has been seconded to the U.S. Army's Telemedicine and Advanced Technology Research Center in Ft. Detrick, MD, where he works primarily in the areas of telemedicine standardization, project development, and deployment of systems. He served for 3 years as a High Level Medical Expert (Consultant) to the NATO Joint Medical Committee, providing expertise primarily on disaster and aviation medicine, as well as medical response to WMD attacks. He also currently serves as the Secretary for the NATO/COMEDS Telemedicine Panel, which is charged with developing policies and procedures that will enhance the multinational interoperability of telemedicine systems in a multinational operational environment.

Since the late 1970's Dr. Lam has been a well-known presenter on the subject of air ambulance operations, their clinical aspects, and the history behind their development and current status. From teaching basic flight surgeon courses in air ambulance operation for the U.S. Army, to the authoring of the first comprehensive U.S.

Army textbook on the subject and a chapter on aviation medicine in the most recent U.S. Army textbook of military medicine, through participation in development of a series of four training manuals on civilian air evacuation for the state of Alaska, to invited presentations in many countries, he has consistently provided an outstanding level of educational outreach.

He served for nearly 5 years as chair of the AsMA Air Ambulance Subcommittee and for many years on the History and Archives Committee. He has published and presented extensively on these subjects, and as a result of his expertise was asked to sit on the editorial review panel for the National Highway Transportation Safety Administration's revision of the Air Ambulance Guidelines.

His professionalism and expertise in the field of Aviation Medicine have been recognized by his selection as a Fellow of AsMA, the American Academy of Family Physicians, and the American College of Physician Executives, and a member of the International Academy of Aviation and Space Medicine. He has received many military awards including the U.S. Army Surgeon General's Recognition Award and the U.S. Army Aviation Medicine Society's Order of Aeromedical Merit.

HISTORY, from p. 700.

speaks well for what the men of science can do" (4).

#### Twenty-five Years Ago

*Medical evacuation of the multiple-trauma patient (USAF Flight Nurse Clinical Coordinator, Scott AFB, IL):* "There are no absolute contraindications for patients to be airlifted. There should, however, be special considerations and preparations made when airlifting a multiple-trauma victim. Many patients were able to be in stateside definitive treatment centers within 24 h of being wounded in Vietnam. The average patient move, from the time of trauma to arrival at the receiving facility, was 3-7 d. Advances in clinical medicine and its application, and the availability of definitive care close to war fronts are major factors for the reduction of battlefield mortality. People are our best investment and our biggest bargain. When the patient requires services not available at the receiving facility, arrangements must be made to transfer the patient to an appropriate medical facility. The multiple-trauma victim is at risk during airlift and close attention must be directed to protection from the stresses of flight... The clinical assessment priority for the multiple trauma victim is: A = airway and breathing; B = bleeding, circulation, and shock; C = consciousness, head and neck injury; D = digestive organs, rupture or damage; E = excretory organs, rupture or damage; F = fractures, splints, and stabilizing casts; G = hide, burns and wounds; H = good plan for management... General considerations for the multiple-trauma victim include: a secure airway, a patient intravenous line, head and chest elevation over 10°, dressed wounds, urinary catheter, all fractures splinted, adequate management orders for the flight, and a current detailed summary about the nature of the trauma and management of problems up to the time of airlift. It should be remembered that the physician who refers the patient is responsible for the best possible condition of the patient upon arrival at the next institution. The physician must assure that patient needs can be met during transport and should antici-

pate care for any emergency needs that might develop inflight" (3).

*First solar-powered flight across the English Channel:* On July 7, 1980, pilot Stephen R. Ptacek was the first to cross the English Channel in a solar-powered aircraft. He flew from Cormeilles-en-Vexin, France (near Paris) to the Royal Manston Air Force Base on England's southeast coast in the Solar Challenger. The 210-pound aircraft took five hours, thirty minutes to complete the flight at an average speed of thirty miles per hour (8).

*Human G-tolerance during Aerial Combat Maneuver (Crew Technology Division, USAF School of Aerospace Medicine, Brooks AFB, TX):* "An acceleration profile was developed on the USAF School of Aerospace Medicine's 6.1-m radius centrifuge to measure human tolerance to the Aerial Combat Maneuver (ACM). The ACM profile is a continuous repetitive, 4.5 G for 15 s to 7 G for 15 s, cyclic G exposure which is terminated by the subject at his fatigue endpoint. ACM tolerances using this type of G profile were determined for seven subjects at four different seatback angles; i.e. 13°, 30°, 55°, and 65° from the vertical. Group (mean ± S.E.) tolerances for the ACM were 170 ± 17 s at 13° and 541 ± 48 s at 65°. These tolerances were not usually correlated with relaxed gradual onset G tolerances. The subjective fatigue endpoint was physiologically verified using heart rate, heart rhythm, and performance criteria at the four seatback angles. The potential value of the ACM profile is considered as a measure of the effectiveness of anti-G equipment and methods in the aerial combat environment" (2).

*Safe interval for flying after diving (National Defence Research Institute and Department of Environmental Medicine, Karolinska Institutet, Stockholm, Sweden):* "Decompression venous gas bubbles were detected with the precordial Doppler ultrasound technique in humans at simulated altitudes of 1,000-3,000 m 3 h after no-stage decompression dives to 15 or 39 m. Bubbles were detected at 3,000 m in a total of 60% of the subjects: in 90% after the 100-min shallow dives to 15 m with some bubbles pre-

sent in the first minutes (mean onset 12 min), and in only 30% after the 10-min deeper dives to 39 m with later appearances of bubbles (mean onset 28 min). At both 2,000 and 2,000 m bubbles could also be detected, sometimes in the first minutes. The risk of decompression sickness must be considered high with the amount of gas bubbles found, even though only uncertain symptoms appeared in this study. Thus, a safe interval between ordinary SCUBA-diving and flying in airliners or general aviation aircraft seems to be more than 3 h" (1).

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#### ASMA HAS A NEW WEBSITE! WWW.ASMA.ORG

AsMA's new web site is now online with many new features! Please check it out!

- Brand new Members Only area
- Members can update address and phone number online and much more!
- Announcement Updates
- New journal page
- Mentorship Program signup
- This NEWS section will be moving online in 2006!

## SPACE MEDICINE BRANCH REPORT

Send information for publication on this page to: **Dwight A. Holland, Ph.D.**  
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### The Young Investigators Award

The Young Investigators Award is a competition intended for those making their first major efforts into Aerospace Medicine Research.

To compete for this award, contestants must be making their first presentation of a scientific paper or poster at an AsMA meeting (excluding cases presented at Grand Rounds as a student resident); they must appear as first author on the paper; and they must prepare and submit a manuscript for judging. Finalists compete in a second phase of competition at the AsMA Meeting involving further evaluation of their presentation and interviews.

The potential applicability of the findings to Space Medicine and the degree of involvement of the student in the project are major considerations.

The finalists in this year's competition, selected from 112 contestants, are richly talented and diversified (listed later in this article).

The winner of the 2005 SMB YIA is Julielynn Wong, M.D. Her paper is entitled "The Cognitive Effects of Artificial Gravity Created by Short-Radius Centrifugation." Her findings that this potential countermeasure could be performed without producing significant cognitive effects in this study is useful information in our continuing journey to find the correct prescription for the



treatment of microgravity. Julielynn has been interested in aeronautics and spaceflight for some time. As a Royal Canadian Air Cadet she learned to fly before she had her drivers license. She graduated with honors from York

University in Toronto (B.S. in Biology) and is currently graduating with her MD from Queens University in Kingston. While in med school, Ms. Wong won a scholarship to International Space University (ISU). She was motivated to join the HI-STAR project through which she presented a proposal to the United Nations to use remote satellite sensing to detect areas of emerging malaria. Julielynn wanted very much to do space research. She was able through contacts at ISU to arrange time in the man-vehicle lab at MIT for centrifuge research, but had to pay her own living and travel expenses. She completed the centrifuge project during nights and weekends of her medical school clerkship, a daunting, grueling task! These kinds of efforts have come to characterize the Young Investigator Award.

The first runner up is Major Julia Sundstrom, from the USAF at Beale AFB in California (in collaboration with the Air Force Research Lab at Wright-Patterson AFB and the Uniformed Services University of Health Sciences). Her paper is entitled "Flight Conditions Leading to Class A Spatial Disorientation Mishaps In USAF Fighter Operations: FY 93-02." The 2nd runner-up is Loretta Trevino, from the Harvard/MIT Dept. of Aeronautics and Astronautics, Cambridge MA. Her paper is entitled "A First-Order Design Requirement to Prevent Edema in Mechanical Counter-Pressure Space Suit Garments." The other finalists include: Dr. Jayashri Devi Sharma from Jawaharlal Nehru Univ., India; Jurek Grabowski and Corey Bills, both from Johns Hopkins Univ.; Major Eriko Takei, M.D., from JASDF, Japan; Dr. Leigh Lehenbauer, from Texas A&M Univ.; Raymond Wittmann, from Technical Univ. of Munich, Germany; Capt. Nereyda Sevilla, USAF, Osan AB, South Korea; Dr. Babak Alagha, from Iran and Queen Mary Univ., UK; and Major Jason Marshall, USAF, Whiteman AFB, MO.

It seems that each year the Young Investigator competition brings us something

new. This may be the first time we have had a contestant from Iran. Babak Alagha, M.D., has had an interest in aerospace research since his father served as a fighter pilot in the Iranian Air Force for the Shah several years ago. Finally this year Dr. Alagha was able to realize his dream when he presented his paper to us at AsMA.

I would like to thank the members of the YIA committee (without whom this competition would not be possible!): Drs. John Darwood, Lloyd Tripp, Smith Johnston, Jeff Jones, Rich McCluskey, Terry Taddeo, Art Arnold, Lu Moreno, and Dan Woodard.

Finally, I would like to thank you for the opportunity to serve in this capacity, the true reward of which is in the work itself.

Witnessing the talent, determination, dedication, sacrifice, and willingness to endure hardship present in these Young Investigators serves to demonstrate the potential of a bright future for our specialty and organization. To the future!

**K. Jeffrey Myers, M.D.**

### ANS President's Message

Well, here comes another great year! There was a lot of meaningful discussion in Kansas City. As your President I've initiated a few actions. First, I have begun finding out who our members are by e-mail and written correspondence. Second, I have sent out a survey to discover how we can best serve our members and bring in new members. Lastly, I have a list of items to accomplish during my tenure including sponsorship for the Klinker award, advertise our strengths, and become a stronger organization.

The Aerospace Nursing Society belongs to you, so what can you do? Become involved in the parent organization's committees. You can find the points of contact to become involved at

[www.asma.org/aboutasma/committees.php](http://www.asma.org/aboutasma/committees.php). Once you're involved be sure to communicate with your peers. Whether it's through a journal article, a quick letter or e-mail, or a presentation at next year's scientific meeting, we've got to stay in touch. Let's endeavor to recognize our stellar colleagues. There are a number of awards sponsored by our society, it is up to us to match the people who deserve those awards.

I welcome your suggestions and challenge you to make our organization better. I can be contacted at [roperhealth@earthlink.net](mailto:roperhealth@earthlink.net).

**Danny R. Roper, Ph.D., RN, CEN, CFRN**  
**President**  
**Aerospace Nursing Society**



**YOUNG INVESTIGATORS AWARD**--From left Jeff Myers, YIA chair, with Young Investigators: Jurek Grabowski, Babak Alagha, Julia Sundstrom, Peter Lee (standing in for Julielynn Wong), Loretta Trevino, Raymond Wittmann, Nereyda Sevilla, and Eriko Takei.



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## Message from our President - Trish Trifilo

In 1991, the Trifilos were living in Bitburg Germany. My husband, Rich, had been named USAFE flight surgeon of the year. Rich was ordered to attend the AsMA meeting. He



had been deployed for the previous six months to Saudi Arabia, fighting the Gulf War. He got to come home early to go to AsMA (and I didn't care who, what, or where it was). As a result, all four of us attended the meeting in Cincinnati. Little did I know at that time what

a huge impact the Wing would have on my life! I got some information and met some very friendly women, but I had to wait until the 1994 San Antonio meeting to join the Wing. I've attended every meeting since then; even two that Rich was unable to attend.

Why am I a member of the Wing of AsMA?

First, and foremost: Camaraderie. I have made friends in every military service, in the civilian sector, and in many countries around the world. We have a common bond. Our families speak "aerospace," whether medicine, physiology, business, commercial aviation, or space. These friends understand what my life is like, the triumphs, trials and tribulations, and they support me.

Second, Enrichment. The Wing members are a talented bunch! I am always learning something new. Their skills vary from art and music, culinary and flowers, to science and business. Many times during the years I have contacted a fellow Wing member to ask for advice or assistance with something. They are always willing to share and enrich my life. By being active on the Wing board I have a chance to learn new skills and venture into jobs I would not have thought about trying before.

Third, Fun! We eat together, laugh, and tell stories. Always the unexpected, we have crowded into a huge bathtub together, kept shops and lounges open way past their closing time, careened down highways and around mountains for tours, appeared in festive native costumes, or the hats and gloves of High Tea, tossed fish, and gambled. The group is so diverse, you always fit in. I have friends who are young mothers whose spouses are just starting an aerospace career, and friends who own and run businesses or have active careers in many different fields, and I have friends who have many grandchildren and are retired and enjoying a quiet life.

Fourth, Knowledge. Through the Wing, my husband has had the opportunity to meet and interact with AsMA members he would not have seen at the meetings. Because of the Wing I have learned a lot about aviation, aerospace and environmental medicine. In my classes, and in my interactions with colleagues

at other universities, I have shared my knowledge of the field. The field of Aerospace Medicine has had a huge impact on the world in ways most people are not aware. Because of the Wing, my life is much fuller and richer.

Now, I am your president. I am truly honored to represent you, and I am humbled by your confidence in me. Harriet, and those preceding her, have set the bar high, and I hope to meet those standards. Know that you can contact me at any time with problems, ideas, or suggestions. The Wing is what you make it. I work for you.

## The Luckiest Girl in the World

By Dale Orford

I have always enjoyed the most phenomenal luck. Not the kind you take to Las Vegas to play the slots, or the type with which you bet on the "ponies," but the kind which leads you down the most unusual and interesting paths to unique experiences.

The kind of luck which, when I was just 23 years old, found me working for the Montreal Stock Exchange. It was a time of unrest among various political factions in the Province of Quebec, and one day, a terrorist placed 13 sticks of dynamite outside the door to our offices. Quite a big bang!! The ceiling, and two walls buried me, and it was sheer luck that I escaped with only a fractured clavicle and minor cuts and bruises.

A couple of years later, shortly after I had moved into a new apartment, my neighbor, a handsome, young medical student, knocked on my door to borrow some cookware. We have been married now for more than 30 years. When we decided to start our family, that amazing luck showed up once again. Twins! A boy and a girl - 6 pounds each of beautiful babies!

Some of you know the story of my diagnoses with breast cancer last January, and you might not think of that as good luck. But now, as Paul Harvey says, you are about to hear "The Rest of the Story"!

We had just returned from our Christmas holiday to Mexico when I went for my regular, annual check-up at the Mayo Clinic. I had finished all of my tests and was sitting in my doctor's office chatting about the holidays, kids, etc. when Connie (Dr. Eleanor C. Mariano) said to me, "Oh, Dale, they want you back in radiology for some more images. I'm sure that it's nothing, but let's take the extra photos to be sure." So back I went and another 5 images, ultra sound, and then a biopsy - at that point I was pretty sure that I wasn't going to like the results. Bob came home at noon the following day to tell me that the biopsy was positive. That afternoon I met with Dr. Barb Pockaj, the surgical oncologist, who explained my results and my options. At this point, I was reeling with shock, and Barb suggested that we do an MRI to verify the results as well as to see if the lymph nodes were involved. Barb explained that a mastectomy was still the

recommended treatment, but that a lumpectomy might be an option - further tests would tell us more. The following week I had the MRI - it showed two additional spots, not good news, but these were subsequently biopsied and turned out to be benign. Later, I met again with Barb and she said, "You know, Dale, I am looking at your MRI and nothing seems to be jumping out at me. Let's do the lumpectomy to start, and we'll go from there. I'll be away at a conference all next week, so let's get you scheduled for the first week in February."

The following week that amazing luck of mine decided to make another appearance. I was preparing supper when the phone rang. The caller ID said "Mayo Clinic" and I thought it was Bob, calling to say he was on his way home. Imagine my surprise to hear Barb's excited voice on the other end. "Dale, I have the most extraordinary news. I have had a "gut feeling" about your case from the beginning. Your case has been flying around the Clinic for the past two days and I have been on numerous conference calls. Last week, I operated on another woman, who according to her biopsy should not have had cancer, but her other tests were worrisome, so we went in, and found that she did indeed have a malignancy. She had had her biopsy at the same time as yours, and the bells were going off in my head. It is like one of those CSI cases on T.V. and I have asked for a DNA trace on both biopsies. I have the whole radiology department involved. We'll still do the surgery, but I am pretty sure that we're going to be happy with the results."

On February 3rd, I underwent a segmental mastectomy where they removed only the two spots which were suspicious. When I awoke Barb was there with a smile on her face. "It's good news! All sections were benign." She said. "You know, I've been doing this for a long time, and I'm pretty good. Your tests just did not match up with the pathology report and I just had a feeling." Thank God for a doctor's sixth sense!



## Join the Wing!

The Wing of the Aerospace Medical Association was formed in 1952 "to support the specialty of aviation, aerospace, and environmental medicine by facilitating cooperation among its practitioners and by increasing public understanding and appreciation of its importance." A second purpose of the Wing is "to promote sociability among its members and their families." Each year at the scientific meeting, AsMA spouses meet new friends from every corner of the world, sharing in the many cultural experiences and educational opportunities of the host city. Dues are \$20 per year. For further information, contact: Judy Waring, 4127 Kenyon St., Seattle, WA 98136; (206) 933-0884; e-mail: judywar-ing@comcast.net.

## NEWS OF MEMBERS

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**Severin Muff, M.D.**, of Bern, Switzerland, formerly the Chief Medical Officer of Medical Services, Swiss International Air Lines, Ltd., in Zurich, is now Chief Medical Officer of the Federal Office for Civil Aviation in Bern (the position corresponds to U.S. FAA Federal Air Surgeon). He specializes in internal medicine, occupational medicine, and aviation medicine. He is also involved in clinical practice, aviation medicine activities, and is a U.S. FAA AME, Canadian CAA, Swiss AME, and JAA AME.

**John Faris** of Perth, Australia, has retired from the RNZAF (Royal New Zealand Air Force) as a Wing Commander after nearly 20 years service. He has now retrained in anaesthesia. He obtained the Fellowship of the Australian and New Zealand College of Anaesthetists (FANZCA) in 2003. He has an interest in echocardiography and passed the U.S. Board Exam in perioperative transesophageal echocardiography 2 years ago. He was recently appointed a Senior Fellow in the Department of Pharmacology at the University of Melbourne and is a member of the Steering Committee for the Diploma in Perioperative and Critical Care Echocardiography offered by the University. He was recently appointed a consultant in the Department of Anaesthesia at the Sir Charles Gairdner Hospital and retains an interest in aviation medicine. He remains a Medical Examiner for the New Zealand Civil Aviation Authority and an Honorary Senior Lecturer in Occupational (Aviation) Medicine at the University of the Auckland.

**Thomas R. Wolf, M.D.**, of Phoenix, AZ, is now serving as Director, Neuro-ophthalmology Division, Barrow Neurological Institute, also in Phoenix.

### In Memoriam: John C. Ralston, Jr.

We have just learned that John C. Ralston, Jr., M.D., M.P.H., died in March. John was a fixture on the Registration Committee of AsMA and could always be found at the Registration booth at our Annual Meetings, helping members in any way he could. We will all miss his kindness and cheer.

A native of Fort Atkinson, WI, he earned his B.S. degree from Purdue University, Lafayette, IN, in 1949. He received his M.D. from Indiana University, Bloomington, IN, in 1953. He served a general internship from 1953-1954, and then a general surgery residency in 1954, at Good Samaritan Hospital, Portland, OR.

Dr. Ralston was a retired Navy Captain whose service began in 1954 when he was commissioned in Seattle, WA. His first post was as a Student Flight Surgeon at the Pensacola, FL, Naval Air Station in 1955. During that year, he earned his wings. He

also served as a Flight Surgeon with a Navy Seaplane Patrol Squadron, VP-47, which was followed by a tour at NAS North Island, San Diego, CA, until 1956. From 1956 to 1957, he served as Assistant Medical Officer and Flight Surgeon at the Naval Auxiliary Air Station, El Centro, CA. In 1964, he became the Senior Medical Officer for the U.S. Naval Air Station in New Orleans, LA. From 1965 until 1967, he served aboard the *USS Ticonderoga*. After retirement from the Navy, he served as President of Staff of the Willamette Falls Community Hospital.

He was a Fellow of the Aerospace Medical Association and American College of Preventive Medicine, and member of the Civil Aviation Medical Association, and the Phi Chi Medical Fraternity.



**REUNION**--During the Fellow's dinner in Kansas City, two old friends met again after many years: (left) Col. Joe Kittinger (U.S.A.) and (right) Sayom Namfar (Thailand). The two men served together in Viet Nam. Col. Kittinger, who is an Honorary AsMA member, was the Bauer lecturer at this year's meeting.

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**ICAO OFFICERS**--S. Finkelstein (Argentina), C. Curdt-Christiansen (Denmark), and A. Evans (U.K.) met during the AMDA dinner in Kansas City with Drs. M. Antuñano (AsMA Past President) and R. Rayman (AsMA Executive Director).

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### MEETINGS CALENDAR 2005

**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; www.hci-international.org

**September 15-18, 2005, Gold Coast, Queensland, Australia.** Conjoint Meeting of the Australasian Society of Aerospace Medicine (ASAM), the Asia Pacific Federation of Aerospace Medicine Associations (APFAMA), and the Aviation Medical Society of Australia and New Zealand (AMSANZ).

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

**October 19-22, 2005, Playa del Carmen, Q.R., Mexico.** XXII International Meeting of Aerospace Medicine. Sponsor: Mexican Association of Aviation Medicine, A.C. General Theme: Advances in Clinical Aerospace Medicine. Info: Luis A. Amezcua G., M.D., Tel./Fax: (52-55) 55-15-68-84; lamezcua@att.net.mx

**October 24-26, 2005, Salt Lake City, UT.** SAFE Association 43rd Annual Symposium. Info: Jeani Benton 541-895-3012; safe@peak.org; www.safeassociation.com.