

President's Page

President-Elect's Message

John Hastings, M.D.

I am writing this month's page in place of President Richard Jennings, who was sidelined by illness for a time and out of pocket. He asked me to step in for the moment.

In the early 1990's Richard drove me to the airport in Galveston following an aerospace medicine lecture; on that drive he encouraged me to pursue my interest in aerospace medicine. He welcomed me, told me of his love for aviation medicine, and sparked my enthusiasm. I decided to follow his lead and have been forever grateful for that conversation.

When Richard became involved in leadership of this organization, he always spoke of generating interest in aerospace medicine and bringing in young members with their interests, enthusiasm, inquisitive minds, hunger for learning, and their dreams. As a measure of his dedication to those who would follow in our footsteps, he staunchly supported Mel Antuñano's mentorship program in which able, experienced members would guide and shepherd newcomers. The mentorship program is now in place.

Dr. Jennings' major initiative to secure the future of aerospace medicine was to establish a Foundation for the Association that would foster perpetuation of aerospace medicine and its continued development. The Foundation is now a reality—it is up and running with approval by the US Internal Revenue Service.

I also am a firm believer in the concept that the future of the Association rests upon the young members of our Association and those who have yet to join. I believe that the most important member of AsMA is the person who joined today, for that person may lead the Association in years to come. The members *are* the Association, and those entrusted with leadership positions bear a responsibility to represent the members and act in their best interest.

The November 2006 meeting of the Council was busy indeed and filled with new ideas and fresh proposals. I enjoyed filling in for Richard while he was ill. Rather than recapping the business of the meeting, let me just list a few ideas that were brought up for discussion, either during the meeting itself or in informal conversation with Council members and participants:

- Addition of new members of the Council for greater representation



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

- Rethinking of the current structure of AsMA to reflect the international nature of AsMA and enhance that concept, with strategies towards greater international involvement in the Association
- Answering the question: "What can AsMA do for me?"
- Strategies to increase the appeal of the annual scientific meeting to a broad audience, with clear delineation of areas of interest (clinical, research, etc.)
- Journal content
- Strategies to enhance member involvement in the Association through committees, scientific program, and other participation
- Recognition of those with accomplishments and service within aerospace medicine.

Our Association is diverse and international, with 11 constituents and 30 affiliates, representing aerospace medicine and many allied health care and human factors professionals. We must seek ways to find unity in that diversity, to strengthen our bonds among ourselves and with others who have the fascination to work in aviation and in space. That is the challenge to us all.

In introducing his book, "Perestroika," Mikhail Gorbachev penned the words: "We are all passengers on this one ship, this mother Earth." Those words certainly reflect a global view and convey a sense of connection rather than separation. If there is any organization that has the capacity to represent worldwide members with diverse aviation and space interests and fields of endeavor, it is our Association, this Aerospace Medical Association. I urge all to contribute.

Executive Director's Column



Rayman

Aviation Rulemaking Committee -- Age 60 Rule: The Penultimate Act

As I had written in the previous issue of the Journal, the Aviation Rulemaking Committee (ARC) had since completed its deliberations and has forward its recommendation to the FAA Administrator. (The full report can be found online at www.faa.gov. Click on Aviation Rulemaking Committee Age 60 Report on the lower left side of the home page.) As you can see from the report, the opinions of the members of the ARC were very polarized making consensus impossible. Consequently, the ARC did not make a clear recommendation to the FAA Administrator whether or not to adopt the ICAO standard that allows for a pilot to remain on flying status until reaching age 65. Nevertheless, the Administrator has proposed a change to the Rule and will soon issue a Notice of Proposed Rulemaking (NPRM) whereby public testimony will be registered. After that, possibly over a period of 12 - 24 months, a final decision will be reached.

For your information, our medical testimony was extracted from the ARC report:

Statement of the Aerospace Medical Association

The Aerospace Medical Association (AsMA) is the largest, most representative professional organization in the fields of aviation, space, and environmental medicine, with more than 3,200 members from over 70 countries. The ARC received the following information from the AsMA.

The AsMA recognizes there are many factors to be considered in determining any age restriction for air transport pilots (ATP) but firmly believes the policy should be based on operational rather than medical considerations because aging is not an illness. Although there are normal physiological changes that come with aging, those changes do not necessarily degrade a pilot's ability to function in the cockpit.

A number of studies regarding aging pilots have been done over the past 25 years. However, because there have been no ATPs over 60 years of age, it would be extremely tenuous to extrapolate these findings from younger pilots to older pilots. (The data was taken from ATPs below 60 years of age and from pilots over 60 years of age who fly gen-

eral aviation or commuter/air taxi operations.)

A number of nations do allow ATPs over 60 years of age to continue flying as ATPs (see Appendix 6 to this report), but there is no comprehensive data on how they have fared. There is one study by Japan Air Lines (JAL) published several years ago in which it was reported that there were no accidents or incidents due to illness or aging among this cohort of pilots more than 60 years of age. Based on informal discussions with medical directors from overseas airlines, AsMA believes other airlines have had the same experience as has been reported by JAL.

One could argue that older pilots are at greater risk because of an increased incidence of heart disease or stroke. However, for younger pilots there are increased risks for incapacitating illnesses such as bleeding peptic ulcer disease or migraine headaches. Thus, to assume all the risks reside in older pilots would be misleading.

Previous studies have demonstrated statistically that ATPs (and military pilots) fare much better than the general population in practically all disease categories.

There has never been a U.S. air carrier ATP accident assigned to medical causes. Certainly incidents have occurred in-flight that did threaten flying safety, but these are very rare events, and when they do occur, the illness is almost always not incapacitating.

Given this information and the fact that there are two pilots in the cockpit, it would seem reasonable to assume that risk of a significant medical event during a critical phase of flight would imperceptibly threaten flying safety. The risk is vanishingly small.

AsMA believes that age should not be the sole criterion for disqualifying an ATP from cockpit duty.

In addition, the current FAA medical standards and its current policy of a medical examination for ATPs every 6 months is reasonable and should be continued if the FAA adopts the ICAO standard. Although some would argue that more tests should be added for these older pilots, Dr. Russell Rayman, Executive Director of AsMA, does not believe

this would in any way enhance flying safety. Most, if not all, screening tests would not reveal information indicating imminent, sudden incapacitation. Therefore, adding more tests would not provide useful information and could in fact be harmful to the pilot because of the problem of false-positive results.

NEW IMPROVED WEB FEATURE: POLICY COMPENDIUM

Some of you may be aware that you can already access AsMA position papers and resolutions online. But we've just made it easier for you! Previously, you had to scroll through an extensive PDF file that contained all papers since 1992. You can now view and print each paper from the table of contents. Just go to our Home Page (www.asma.org) and click "About the AsMA". Then scroll down to "Downloadable Materials". Select "Policy Compendium" and you will have a table of contents from which you can choose the document you wish to view or print.

MEETINGS CALENDAR 2007

April 15-20, 2007, Honolulu, HI. 2007

International Conference on Acoustics, Speech and Signal Processing. Info: Institute of Electrical and Electronics Engineers, info@icassp2007.com; www.icassp2007.org.

April 16-19, 2007, Cobo Center, Detroit, MI. 2007 Society of Automotive Engineers World Congress. Info: Society of Automotive Engineers World Headquarters, 400 Commonwealth Dr., Warrendale, PA 15096, 724/776-4841, mjena@sae.org, <http://www.sae.org/congress>.

April 17-19, 2007, Nottingham UK. Ergonomics Society Annual Conference. Info: Sue Hull, Ergonomics Society, Elms Court, Elms Grove, Loughborough LE11 1RG, UK, +44 0 1509 234904, fax +44 0 1509 235666, hulls@ergonomics.org.uk, <http://www.ergonomics.org.uk>.

April 22-26, 2007, Dayton, OH.

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

April 23-26, 2007, Dayton Convention Center, Dayton, OH.

14th International Symposium on Aviation Psychology. Info: Richard Jensen, 5329 Van Fossen Road, Johnstown, OH 43031, 740/967-4030, rjensen@core.com, <http://www.wright.edu/isap/>.

April 28 - May 3, 2007, San Francisco, CA. 2007 International Performance Improvement Conference. Info: International Society for Performance Improvement, 1400 Spring St., Ste. 260, Silver Spring, MD 20910, 301/587-8570, fax 301/587-8573, <http://www.ispi.org/ac2007/>.

Attention Members!

Council Meetings are open to all members of the AsMA. Your input and attendance are always welcome. Our next meeting will be on Sunday, May 13, 2007, 9:00 a.m. in the Sheraton, Maurepas Room, New Orleans, LA.

The Annual Business Meeting will be Tuesday, May 15, 2007 at the Sheraton, Lagniappe Room. Your attendance is vital. Your vote is important. (Note: You don't have to buy lunch to attend the meeting!)

This Month in Aerospace Medicine History-- April 2007

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

Seventy-five Years Ago

Ophthalmologic standards for pilots: "Ability to maintain equilibrium is essential in flying and the eye is the most important single factor in this complicated act; vestibular and deep muscle sense are next in importance and tactile sense is of least value..."

"Although the eye is the most important factor in maintaining equilibrium, studies in blind flying clearly indicate that many visual impressions, although overpowering, are erroneous and training in instrument flying is important in teaching the aviator to disregard the false information the eyes sometimes give..."

"In judging distance, the aviator uses the motion parallax much more than the binocular parallax but stereopsis is of great value in landing and in formation, stunt and combat flying, especially to the man untrained in using one eye alone..."

"A cycloplegic should be used for all ophthalmoscopic examinations. The retinoscopic findings, as well as pathological conditions of the fundus, should be noted..."

"Psychology is an important factor in visual judgment, and the individual psychology of the applicant should be considered in every ophthalmological examination..."

"Diseases, especially the acute and chronic infections (syphilis, tuberculosis and the focal infections), are causes of staleness and increased sensitiveness to oxygen depletion in aviators..."

"General fatigue, especially that caused by lack of sleep, lowers eye resistance to oxygen depletion experiments, more than the abuse of tobacco, alcohol or other excesses..."

"Smoking one cigar or inhaling two cigarettes is more disturbing to the ocular functions of aviators than drinking five ounces of cognac brandy..."

"The advisability of maintaining high ocular standards for aviators has been proved, even though these standards cause the rejection of 50 per cent of the men disqualified by the air services of the Army and Navy of the United States, and 70 per cent of the 7 per cent disqualified by the United States Department of Commerce..."

"The eyes of all aviators should be examined every month but, since this is not possible, the present standard set by the Department of Commerce is practical. No public pilot should be permitted to resume flying after an accident until he has been reexamined as soon as possible after an accident..."

"The adoption of international visual and physical standards for aviators will do much to promote safety and to advance the science of aviation" (1).

Fifty Years Ago

Discovering new physiologic phenomena: "It is no cause for wonder that aviators have unique subjective experiences. Moreover, it is to be expected that these experiences will change with the changing character of aviation and with differing circumstances attending flight. To keep abreast of the changing pattern of the aviator's experiences, periodic surveys are necessary. During the course of a

recent inquiry, we heard pilots refer to an event in their experience by the term 'break-off.' This was defined as a feeling of physical separation from the earth when piloting an aircraft at high altitude. Systematic inquiry disclosed that this phenomenon is of sufficient importance to deserve investigation..." (2).

Disadvantages of the partial pressure suit: "Despite the increasing prominence of the partial pressure suit in high altitude flying a few pilots and flight surgeons have been reluctant to accept it as an effective emergency protective system in case of loss of cabin pressure while flying above 45,000 feet. The disadvantages of the suit which have been the basis for this attitude are: 1) the necessity for careful individual fitting and several hours of indoctrination in its use; 2) a degree of discomfort and fatigue with prolonged wearing; 3) some limitation of motion and restriction of vision; and the 4) inability of the suit and helmet to protect the flyer for an indefinite period at high altitude in event of cabin failure" (5).

Aging pilots and accident rates: "The problem of aging is of special importance to the Air Force because the changes associated with the aging process may seriously affect one's ability to operate the complicated equipment of a modern air arm. An accurate evaluation of the problem is complicated by the fact that not all persons age at the same rate; nor do individual abilities of the same person change at the same rate. A further complicating factor is that the part which such variables as training, experience and judgment play in counteracting the deteriorative effects of age is not clear. At the same time that a person becomes less capable of adequately operating some types of complex equipment, he may still be capable, or even more capable, of handling other vital assignments whose requirements are based upon the maturity of judgment rather than upon precise physical reactions which are at their maximum in the early ages..."

"An evaluation of the available data showing relation of age and experience to aircraft accidents indicates that either limited experience or younger age is associated with a high accident potential, and that with advancing age and/or increased experience this accident potential decreases. In some types of aircraft, however, particularly jet fighters, with advanced aged (past the middle thirties) there is an up-sweep in the accident rate. This may be the result of limited jet flying experience or limited current flying experience, particularly in jets, or any combination of these or other factors. Regardless of the variables at work, the number of accidents experienced in these age groups is so small that from the standpoint of the older pilot it is negligible. By far the greatest gains in the accident prevention program can be made by reducing the accidents of the younger, less experienced pilots, especially those flying jet aircraft" (7).

Automation and human engineering: "Automation will not replace the human operator entirely, but will merely shift the emphasis within the field of possible human uses. Nor will automation replace human engineering. In fact, automation will make human engineering even more important in complete system designing. Systems are designed by men for their own use. Thus, man and his machines will never become separate and unrelated entities" (3).

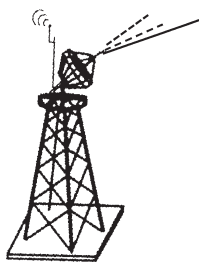
Twenty-five Years Ago

Correlation of aircraft structure and injury: "An aircraft accident investigation program correlates injuries to occupants with the severity of impacts and structural changes in the crash. Findings brought to the attention of aircraft manufacturers have led to specific aircraft being made more crashworthy. The finding of a failure in a shoulder harness attachment led to the strengthening of the attachment brace. The way a shoulder harness was joined to a lapbelt was modified following a noted failure. The finding of fractures of lapbelt and shoulder harness cable tie-downs led to the use of stronger cables and modification of the installation. Other findings resulted in a shoulder strap guide being placed on an inertia reel and a side-mounted seat being modified. Described also are three seat-related features which, although meeting FAA standards, during the dynamics of a crash may lack desirable energy attenuation. These findings illustrate the value of aircraft crash injury correlations" (4).

Aircrew identification using dental amalgam: "The failure to achieve positive identification of aircrew following an aircraft accident need not present a full autopsy and toxicological examination to ascertain possible medical factors involved in the accident. Energy-dispersive electron microprobe analysis provides morphological, qualitative, and accurate quantitative analysis of the composition of dental amalgam. Wet chemical analysis can be used to determine the elemental composition of crowns, bridges and partial dentures. Unfilled resin can be analyzed by infrared spectroscopy. Detailed analysis of filled composite restorative resins has not yet been achieved in the 'as-set' condition to permit discrimination between manufacturers' products. Future work will involve filler studies and pyrolysis of the composite resins by thermogravimetric analysis to determine percentage weight loss when the sample examined is subjected to a controlled heating regime. With these available techniques, corroborative evidence achieved from the scientific study of materials can augment standard forensic dental results to obtain a positive identification" (6).

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2. Clark B, Graybiel A. The break-off phenomenon: A feeling of separation from the earth experienced by pilots at high altitude. *J Aviat Med* 1957; 28(2):121-6.
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5. Randel HW, Taylor IT, Burnett LS. Further studies of medical aspects of partial pressure suit indoctrination. *J Aviat Med*, 1957; 28(2):134-41.
6. Wilson GS, Cruickshanks-Boyd DW. Analysis of dental materials as an aid to identification in aircraft accidents. *Aviat Space Environ Med* 1982; 53(4):326-31.
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Science & Technology Watch

Keeping You Informed Of The Latest Advances In Science And Technology

In this edition of the Watch, Dr. Porras provides us with a brief overview of a revolutionary change in surgical practice, the introduction of robotic assistants.

Robotics in Surgery

Felix Porras, M.D.
Los Cabos, Baja California Sur, Mexico

The surgical branch of medicine has recently grown at a faster pace since the time when the first procedures were performed and anesthesia was first developed over a century ago. This is due to the use of robotic technology in surgery, which allows surgeons to access the human body in a different way than the traditional large incision approach with more precise and stable image-guided procedures. Robots use magnetic resonance and computed tomography to guide the instruments, combined with sensors that register the patient's anatomy. Their use is widely applied to various fields of specialty in the surgical branch of medicine. The accuracy, stability, resistance to fatigue, and image-detecting capability of these robots are a complement to the capability of surgeons to judge situations and make sensible decisions. However, there is still controversy among experts regarding the role of robots to improve human capability rather than replace surgeons, since humans plan the procedures, prepare the patient, and make most of the incisions and sutures.

So, what are those features that make robotics very useful to modern surgery?

One of the outstanding capabilities will be the availability of 3-D image data, including Magnetic Resonance Imaging (MRI), Computerized Tomography (CT) scan, fluoroscopy, and even regular X-rays. These allow the robot to be guided to the diseased tissues detected in preoperative studies. Brain tumor resection is a classic example of this technique that spares healthy tissue. These features have played an important role in minimally invasive telesurgery.

How autonomous are these robots?

All the procedures have to go through the three steps of planning, registering, and navigating, for which human judgment is mandatory. However, robots share control with human beings during the execution of the process, especially in high precision cuts such as knee joint replacement procedures. Robots also provide significant help to surgeons in the use of sensing systems, such as the optical tracker, assisted by light-emitting diodes or reflecting targets that are attached to a probe viewed by a set of cameras from known locations. This allows triangulation of the target with sub-millimeter resolution.

Referring to the cases of robots without autonomy, the surgeon explicitly controls every move in the procedure, formulating all motion commands on the basis of returned sensory information, usually through a video image from the surgical site. Given the master manipulator is separated from the surgical robot, this control mode falls under the category of teleoperation, even when the surgeon works next to the robot inside the same room.

But this concept opens a whole new chapter in the future of the surgical branch of medicine, since researchers are focusing their efforts on procedures performed from considerable distances. This will avoid transportation of patients to specialized units or taking the surgical teams to risky places such as war fronts or natural disaster areas. A less ambitious but very feasible project is telementoring, which allows experts to advise other surgeons in faraway places. All this is part of the development of telemedicine, which allows the interactive transmission of medical information from remote areas in order to get help from specialized medical consultants in reading X-rays, EKG monitor traces, etc. It represents an important tool in aeronautical medicine.

How have the robots been implemented in daily surgical practice?

It has been a gradual process. Since the FDA approved the first completely robotic surgical device on 11 July 2000, there have been significant advances in different specialties, mainly in Orthopedic, Cardiovascular, Neurological, and Thoracic procedures. Nevertheless, safety has always been the first concern. The creation of safety mechanisms that allow automatic shut-down of the robots was a priority. Other issues have been important in developing this technology, such as costs and measurable improvement in patient recovery. Also, some procedures are difficult to assess; for example, it takes 15 years to evaluate the long term results of a hip replacement.

In spite of the cost limitations, the progress reviewed here demonstrates that robotic technology will transform surgery in the coming years. Robots promise to become the standard modality for many common procedures, including hip replacement, heart bypass, abdominal surgery, and procedures performed onboard air ambulances or even space vehicles.

This suggests that surgeons, particularly researchers working to enhance and extend the field, will need to become familiar with robotic technology. The same is true for robotics researchers: creating effective systems requires understanding the demands of surgical procedures and the culture of surgical practice. The research teams that have created groundbreaking systems demanded close collaborations among robotics researchers, computer scientists, and surgeons. Future progress will require similar interdisciplinary teamwork.

Finally, we, as a medical community must stress that all these technological advances are handled by human beings. They are their working tools, not their substitutes.

To discover more about this topic, please refer to the following articles:

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The AsMA Science and Technology Committee provides the Watch as a forum to introduce and discuss a variety of topics involving all aspects of civil and military aerospace medicine. Please send your submissions and comments via email to: barry.shender@navy.mil. Watch columns are available at www.asma.org in the AsMA News link under Publications.

Journal CME/MOC Reminder

AsMA has been running a feature that accredits certain articles published in *Aviation, Space, and Environmental Medicine* for Continuing Medical Education (CME) and Maintenance of Certification (MOC). Three articles are selected every issue for which there are questions. Physicians desiring CME/MOC must answer the questions on a form and submit it with payment to the Home Office. The Home Office will grade the questions and archive CME/MOC credit. This means a physician can accumulate a maximum of 33 hours of CME/MOC each year. (Because the March issue contains only abstracts of the Annual Scientific Meeting, only 11 issues will have questions.) Specific instructions accompany each accredited article.

Russell B. Rayman, M.D.
Executive Director

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AEROSPACE NURSING SOCIETY NEWS

President's Message

The Aerospace Nursing Society (ANS) continues their goal to fellowship and work as a team with all of the Aerospace Medicine Association members. We are glad to announce that we are scheduled to meet with the Associate Fellows and New Members for fellowship during the New Orleans Scientific Meeting this May. Please check the program addendum for the date, time, and place of that meeting. Our desire has been to utilize effective communication so that we can continue to accomplish common goals for the organization by sharing the science and spreading the word to existing and new members.



Based on a report from Diane Fletcher, Treasurer, ANS membership annual dues for 2006-2007 are to be sent to her as soon as possible. The annual dues are \$10.00. A check or money order can be mailed to Diane (see box below). Please let Diane know if your address and/or your e-mail has changed. Based on our current ANS Members List, some of the e-mails are no longer valid. We appreciate your assistance while updating demographic information.

As a reminder, to become involved in an AsMA committee, sign onto the website address www.asma.org/aboutasma/committees.php. It is most important to be active; the organization needs a nursing voice. We do add value and we need to share our unique experiences in Aerospace Nursing in the form of written articles relating to past or present air transport experiences. Narratives in communication are excellent educational methods to share information with our future generation.

Let us not forget our members and fellow countrymen who are going to be deployed or are already deployed. Welcome home those members returning from deployment. It is important that we keep them in our thoughts, and continue our support for the duty time that they provide to our great global society. Continue to be safe as you serve.

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

Pay Your Dues! OR Join the Aerospace Nurses Society Today!

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

Glenn Stoutt, M.D.

If you have heart disease or a heart attack, it is better to be a man than a woman.

Of the million heart attacks in the America every year, over half are in women—a third of which are fatal. Heart attacks (MIs, or myocardial infarctions) are the number one cause of death in both men and women, yet there is a marked difference in the way they are recognized and treated in women. In the past two decades, more women than men have died of heart disease.

Women are more likely to die from their heart attack than men—40% die within 1 yr of an attack as compared with 25% in men—and women have poorer results from treatments such as angioplasties, bypass surgery, and stents. They are also less likely to get these procedures, or even the necessary medication after recovering from the attack, and less than one third get medication to reduce high cholesterol. Women are less likely to think they are having a heart attack, and so postpone seeking help much too long. "Time is muscle"—the longer the delay for treatment the more heart muscle dies. A 1- to 2-h delay is the optimum window of opportunity for the best outcome. About half of cardiac deaths occur before emergency services begin treatment.

The perception that women are less susceptible to heart disease than men is pervasive, not only among women, but also in many physicians. The extra protection by estrogen is lost after menopause, but women continue to feel more secure after they are 50 or 60. Women fear breast cancer more than the epidemic of heart attacks, which kills tenfold more of them, more than the next six causes combined.

Research in heart disease has, until recently, been confined to studies on men. One of the most significant new findings is that women have different risk factors and different symptoms from men and are, therefore, often ignored when they present with signs and symptoms that could indicate a heart attack.

Almost all the public knows the major signs and symptoms of a heart attack: chest pain, shortness of breath, sweating, and pain in one or both arms. Now expand this pattern to include pain—mostly in the center of the chest (below the sternum or breast bone)—which can be crushing, a feeling of pressure, tightness, or heaviness, fullness, and fatigue with cold and clammy skin with a gray pallor. *Most men have some, but not all, of these markers. In men, pain is more marked and lasts longer than 30 minutes and is not relieved by rest.*

In women, the pattern of often quite different. They may have shortness of breath, nausea and vomiting, abdominal, back, and jaw pain, lightheadedness, dizziness, marked fatigue, or sleeplessness. They may think it is just "indigestion" or "heartburn." A third of women did not have any pain during a heart attack, often describing it as pressure, aching, or tightness. A lot more education about these differences is needed both for the public and the medical profession.

If you think you may be having a heart attack...

There are some absolutes for both women and men if a heart attack is suspected: Secure transportation to a hospital emergency department (ED) at once, either from someone close at hand (family or neighbor) or call 911. Never drive yourself unless there are no other options. A reliable study shows that a 325-milligram aspirin should be taken immediately. This alone will save about 10,000 lives a year, but only about a fourth of the population is aware of it. Keep aspirin on hand at convenient locations. Don't have to climb upstairs to get an aspirin if you are having symptoms on the first floor. Tell the ED, "I think I am having a heart attack." This will get their immediate attention.

Known risk factors for women include: Family history of heart attack before age 60 in mother or sister, and before the age of 50 in father or brother, ethnicity (much higher in African-American women), diabetes and smoking greatly increase the risk, obesity, sedentary lifestyle (lack of exercise), hypertension, high cholesterol, high triglycerides, stress, menopause—all are definitely risk factors.

Preventive Measures

Much greater emphasis should be on educating the public about lowering risk factors than on treatment. Prevention of any problem is more important than its solution.

- Develop an exercise routine you can accept, and maybe even enjoy, and follow most days of the week. Plan on a lifelong (long life) commitment.
- Optimum blood pressure of 120/80
- Total cholesterol less than 200 (all these numbers in mg/DL)
- Triglycerides under 150
- LDL cholesterol 100 or less
- HDL over 40 in men and over 50 in women
- Fasting blood sugar 100 at most
- Absolutely no smoking (absolutely)
- Maintain optimum body weight (no obesity).
- Men: avoid abdominal fat.

Dietary recommendations are very simple:

Avoid saturated fats and trans-fats, diet should be high in fiber (25-30 grams per day); low sodium (salt) foods, more fruits and colored vegetables, seafood twice a week, skinless poultry, lean meat, whole grains, a handful of nuts twice a week (almonds, walnuts), and fat-free dairy products. This dietary recommendation could be for just about anyone in America, not only those who want to prevent heart disease. No one can eat correctly all the time, so just try to aim for 90% of the time.

CT Angiography

A newly refined, easy and non-invasive test is the "64-slice cardiac CT angiography." Essentially, this exam takes 64 ultra fast images (slices or sections) of the heart and its vessels in about 5 s. The sections are then computer-assembled into a 3-D view of the heart. This procedure is painless and after the patient holds a breath for 5 s—the scan is over,

See HEART ATTACK, p. 452.

and is able to show not only narrowed areas of blood vessels but also early disease in the blood vessel walls that may not be narrowed. This test is useful for patients who have high-risk factors, have non-conclusive stress tests, or have atypical chest pain, but are not candidates for catheterization ("the gold standard")-threading a catheter up a large artery in the thigh and injecting dye into the arteries of the heart-usually done in a patient who has already had a heart attack. The technique still has technical and interpretive problems, but shows great promise. It should be a superb tool for evaluating the blood vessels of the heart. At present, it is not covered by insurance, but may be in a year or so. Insurance companies should allow more non-covered testing in borderline-risk women (such as thallium stress tests) because testing costs are infinitesimal compared with costs of hospitalization, surgical treatment and rehabilitation for heart attacks.

Summary

For any problem to be addressed, it must first be recognized. Since the late 1980s, the disparity between recognition and treatment of heart disease in women and men has taken a dramatic turn. Research in heart disease is now directed at both men and women. Women are no longer the orphans of cardiac care. A woman with any sign or symptom of a heart attack is now usually assumed to have a heart attack by hospitals' emergency departments until proven otherwise. Women now should ask their physicians what their risks are, rather than whether they have risks. Evaluating cardiac risks is a simple matter for a physician. First should come a history (most important) and physical exam, which will include blood pressure and weight. The complete metabolic panel (CMP) will include the blood sugar value, and the lipid profile (cholesterol, triglyceride, and HDL levels) are all the laboratory tests needed, and can be done in any office anywhere. The risk profile will be easy to evaluate.

Survival statistics in women should be dramatically better in the decades to come.

Dr. Stoutt is a Senior Aviation Medical Examiner for the Federal Aviation Administration, Aerospace Medicine Division, Southern Region, Louisville, KY. He is a member of AsMA and has written several articles for the Federal Air Surgeon's Bulletin.

Articles of Aeromedical Interest

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

1. Allemann Y, Hutter D, Lipp E. Patent foramen ovale and high-altitude pulmonary edema. JAMA 2006; 296:2954-8.
2. Byrne NJ. Low prevalence of TB on long-haul aircraft. Travel Med and Infect Dis 2007; 5:18-23.
3. Grosz A, Toth E, Peter I. A 10-year follow-up of ischemic heart disease risk factors in military pilots. Milit Med 2007; 172:214-9.
4. Ropper AH, Gorson KC. Concussion. N Engl J Med 2007; 356:166-72.
5. Shepherd B, Macpherson D, Edwards CMB. In-flight emergencies: playing the good Samaritan. J R Soc Med 2006;99:628-31.
6. Teichman PG, Donchin Y, Kot RJ. International aeromedical evacuation 2007; 356:262-70.

The Civil Aviation Medicine Association Cordially invites you to the 4th Annual CAMA Sunday May 13, 2007, 8:00 a.m., in the Sheraton, Grand Chenier

Topic: Overweight and Obese Airmen: Implications of an international Epidemic

1. Dr William Mills- FAA - Epidemiology of Obese Airmen in the U.S.
2. Dr David Bryman- Senior International Aviation Medical Examiner- Health Consequences of the Obese Pilot.
3. Dr Tony Evans- ICAO - International Perspective of Overweight and Obese Airmen.
4. Dr Eric Donaldson - Australian CASA Regulation Regarding Obese Airmen.
5. Dr Jorg Siedenbueg -JAA- JAA Perspective on Obese and Overweight Pilots.
6. Dr Curtis Cook - Mayo Clinic- Pharmacologic Interventions for Obese Airmen.

CAMA NEWS FLASH!

CAMA Executive Vice President has announced his plans to retire. We greatly appreciate Jim's seventeen years of service to CAMA. The Board of Trustees is planning a replacement for the Executive Vice President. This process will be completed by May 2007.

AME Seminar Schedule - 2007

May 14-17, 2007	New Orleans, LA	AP/HF (3)
June 11-15, 2007	Oklahoma City, OK	Basic (1)
July 13-15, 2007	Oklahoma City, OK	N/NP/P (2)
Aug. 17-19, 2007	Washington, D.C.	OOE (2)
Sept. 14-16, 2007	Savannah, GA	Cardio (2)

(1) A 4½ day basic AME seminar focused on preparing physicians to be designated as Aviation Medical Examiners.

Call your Regional Flight Surgeon.

(2) A 2½ day Theme AME seminar consisting of approximately 12 hours of AME specific subjects plus 8 hours of subjects related to a designated theme. **Registration must be made through the Oklahoma City AME Programs Branch.** Call Lea Olsen (405) 954-4258.

(3) A 3½ day Theme AME seminar held in conjunction with the Aerospace Medical Association (AsMA). **Registration must be made through AsMA** (703) 739-2240.
N/NP/P Neurology/Neuro-Psychology/
Psychiatry Theme
Cardio Cardiology Theme
AP/HF Aviation Physiology/Human
Factors Theme
OOE Ophthalmology, Otolaryngology,
Endocrinology Theme

Vote for 2007-08 Aerospace Physiology Society Board of Governors Officers

Reminder: The Aerospace Physiology Society (AsPS) is conducting its 2007-08 Board of Governors election via email until the end of April 2007. The AsPS website at www.aspsociety.org has been updated and has nominee information (including biographies and photos) for Society members to review. AsPS Board of Governors offices up for vote this year are President-Elect, Treasurer (2-yr term), and At-Large Member (4-yr term). In addition to election information, ballots also are posted on the Society website. Members in good standing are encouraged to download a copy of the ballot, mark it appropriately, and send it via email to the Chair, Nominations Committee, no later than 30 April 2007. Remember, only current members of the Aerospace Physiology Society are eligible to vote. For additional information, contact Colonel Jim Dooley, Nominations Committee Chair by email at james.doolley@langley.af.mil or by phone at (757) 764-7827.

AsPS SOCIAL

Please join the Aerospace Physiology Society (AsPS) in a true celebration of New Orleans food and culture! The AsPS will gather together at the Crescent City Brewhouse on 16 May 07 at 1800 hours for an evening designed to 'cool the neurons' after a day of scientific sessions. This is a terrific opportunity to gather together with colleagues and those interested in the activities of the Aerospace Physiology Society. Details of the venue can be found at: www.crescentcitybrewhouse.com

Tickets for the evening will be available at the AsPS membership table at the AsMA conference.'

Habitat for Humanity Project

The Aerospace Medical Association is partnering with the New Orleans Area Habitat for Humanity during the 2007 annual meeting. Conference attendees and AsMA members interested in contributing back to our host community are invited to volunteer with Habitat for Humanity on Saturday, May 12, from 7:15 am to 2:30 pm.

Conference attendees, spouses, family, and friends are all invited, but must be 16 years of age to participate. We will be assisting in the construction of new houses, so volunteers can expect to engage in light manual labor. All equipment and training will be provided, but volunteers should bring necessary personal items, such as light work clothes (long sleeves and pants), eye protection, work shoes/boots, and work gloves.

We are currently planning to meet in the lobby of the Sheraton at 6:00 am on Saturday, May 12th, for a group departure to the work site.

If you are interested in participating, please contact the service project coordinator, Dr. Kjell Lindgren at kjell.lindgren@gmail.com

WING NEWS & NOTES

Send information for publication on this page

to: **Dale Orford**
15516 E Acacia Way,
Fountain Hills, AZ 85268
480-837-7919; dorford@cox.net

Greetings from the Rez!

By Jane Mitchell

As I sit down to write in the predawn hours of this January morning, the temperature is headed for zero, and there is snow in the forecast for the next 2 days. This may be a big surprise for those of you who remember that when Glenn retired from the Army at Fort Bliss (El Paso, TX) 2 years ago, we moved to Arizona. What you may not know, however, is that we came to the Navajo Reservation to work for the Indian Health Service, which is a branch of federal service under the Public Health Service. Where we live is only 110 miles south of the Four Corners area, which is where Utah, Colorado, New Mexico, and Arizona meet. We are on the Colorado Plateau, and it is the high desert, dry and windswept. Here, at an altitude above 7000 feet, the weather can get very cold!

The Navajo Reservation is a sparsely populated area of approximately 25,000 square miles (about the size of West Virginia), that, like the pueblos and other reservations here in the Southwest, is a sovereign nation, with its own government, laws, and customs. The tribal capital, Window Rock, is only 12 miles from where we live, which is in a housing compound built specifically for the hospital staff. Some of you may have traveled to the amazing National Parks, such as Monument Valley, Mesa Verde, Painted Desert or Petrified Forest, that are contained within the Reservation. If so, you are aware of the tremendous beauty and variety in the natural landscape. Glenn and I first became familiar with this area of the country as we were taking RV trips with our boys when they were young. The Grand Canyon, to which we have returned many times, is just west of the western border of the Navajo Reservation. The Navajo (or Diné, as they prefer to be called - it means "the People") consider six of the bordering mountain peaks, as well as many of the unusual land features such as Ship Rock, to be sacred places. The red rock formations around us here at Fort Defiance are visible each time we step out the door, and their beauty can be breathtaking. The vistas create a feeling of peace after a long day at the hospital.



FORT DEFIANCE INDIAN HOSPITAL--
Sculpture of a Navaho family group which graces our hospital's lobby.

Fort Defiance Indian Hospital, with approximately 50 inpatient beds and 75 medical staff providers, has been here for many years, but moved into a new facility about 4 years ago. It is beautifully designed, with native art incorporated into the spaces. The Diné are painters, sculptors, silversmiths, and weavers. (Nearby Gallup, NM, only 30 miles away, is the center of the jewelry trade.) Glenn was the Director of the Emergency Department (he is also board certified in Emergency Medicine) until he became the Director of Ambulatory Care (which has 175,000 patient visits per year) last June. He still works several shifts per month in the Emergency Department in addition to his administrative duties.

I have been working as a consultant to the newly (as of October 2005) opened Adolescent Care Unit in Fort Defiance Indian Hospital since July of 2005. It is now an inpatient program with 10 beds, although for our 6-month startup period, we functioned as a 5-day per week day hospital. In our first year, we provided services for approximately 50 young people, all Native American, who came to us for treatment of behavioral issues, stemming mostly from depression and/or anxiety disorders. They receive individual and group psychotherapy, evaluation, academic services, recreational and experiential therapies, and other services while they are in our care. The length of stay for most is about 60 days; of course, referral to follow-up care and, in some cases, additional residential placement, is part of our program.

What makes our program unique is that we have a Traditional Practitioner (Navajo Medicine Man) as part of our staff, and many program elements reflect this emphasis on helping the youth recover (or learn) their cultural identity, and the use of some traditional healing practices. There are classes to teach the traditional stories, values, and ceremonies, weekly sweat lodges, twice daily blessing circles, and music and craft activities. Most of the direct care staff, except for the RNs, are Navajo and they often speak to the children in that language (which is extremely difficult for non-Natives to learn, but we have picked up a few phrases). Of course, many of the young people are raised in homes where English is the primary language, and they may be raised as Christians. Most are of mixed parentage or may, in fact, be Zuni, Laguna, or Hopi (nearby pueblos). So we try to emphasize acceptance of cultural diversity while at the same time helping them reconnect with their heritage. The other major advantage of having such services available at Fort Defiance is that, instead of sending them off the Reservation for treatment, they can come to our program, and their

families are encouraged to participate in the healing as well.

The Diné are a pastoral people, living naturally in small family groups, tending their livestock, trying to scratch a meager existence from the poor soil and selling their handcrafts. As you can imagine, here on the Reservation, the level of poverty can be extreme. The lack of economic opportunity (several industries have been tried and failed, and the Navajo do not allow gaming) means that for those who choose to live here, the average per capita income is below \$8000 per year. Combined with existing social problems (such as domestic violence, substance use, and other types of family dysfunction), the lack of opportunities for young people makes this place a fertile breeding ground for hopelessness, gang behavior, substance abuse, and other self-destructive behaviors. Glenn sees the worst of it in the ED, as well as more chronic illnesses such as diabetes, which is rampant here. Our adolescent program was created in an effort to prevent some of these needless tragedies. It is hard work, but the People need this next generation to be healthier than their parents' generation. As someone said to me yesterday, "They are our most precious resource."

Life for us is certainly different. The remote, rural location means a lack of convenient access to shopping and other services. While some necessities can be obtained a bit closer to home, for better grocery selection and prices, we shop weekly in Gallup, NM, 30 miles away. Better yet is stocking up at a warehouse store, but that, like driving to the nearest airport, means a two-and-a-half-hour trip each way to Albuquerque, NM. Interstate 40 can be closed for weather conditions or accidents, so sometimes the round trip cannot be completed easily. We have found that many items can be purchased online, and we do have FedEx and UPS, but often deliveries do not take place within the usual timeframes. It seems that while in our past situations we sought out wilderness and National Parks for our vacations, now we are more likely to seek out urban experiences (cultural events, shopping, and restaurants!) during our time off. In the past year, we have traveled to Chicago, Tucson, San Antonio, Providence, Philadelphia, Orlando, Portland, New Orleans, Paris, Frankfurt, and Salzburg!

Wishing you all the best for 2007, and looking forward to seeing you in New Orleans!



HIGH DESERT--View of Monument Valley.

Habitat for Humanity Project

Wing and AsMA members have the opportunity to join a Habitat for Humanity work group on Friday, May 11th, 2007, in St. Bernard Parish, New Orleans. The work day will start at 7:15 a.m. and wind up about 2:30 p.m. For further information contact Dr. Kjell Lindgren at kjell.lindgren@gmail.com.

NEWS OF CORPORATE MEMBERS

PricewaterhouseCoopers Becomes Corporate Member

PricewaterhouseCoopers (PwC) recently joined the Aerospace Medical Association as a Corporate Member. PwC was formed in 1998 when Price Waterhouse and Coopers & Lybrand merged. They serve 29 industries, including the fields of aerospace and defense, assurance, taxes, human resources, performance improvement, and crisis management. They also assist educational institutions, the federal government, non-profits, and international relief agencies in managing their business issues.

One of the ways in which PwC serves the aerospace industry is an annual aerospace survey. This survey includes an analysis of aerospace's top 100 marketplaces. PwC has also produced a white paper on protecting aerospace and defense industries against fraud. In addition, PwC has also written a paper on civil aviation which discusses the factors that shaped the industry and a paper on the defense industry that looks at recent global defense history and its implications.

For more information on PwC, please visit their website at <http://www.pwc.com>.

CHS Completes Collection of Public Health Data

Comprehensive Health Services (CHS), a nationwide workforce health management company, today announced that its sponsorship of the Workforce Health Assessment Model (WHAM) with the Health Systems Institute at the Georgia Institute of Technology and Emory University has completed the first step in the project. This step, consisting of building the largest collection to date of reconciled public health data from disparate sources, will allow for the data to be input into a model that predicts the prevalence of certain health conditions.

Now in its disease-modeling phase, WHAM is scheduled for completion June 2007. The project will quantify workforce health risks, their consequences and costs, which will benefit companies nationwide in selecting cost-effective strategies to reduce long-term health risks and workforce health costs. Using Bayesian modeling techniques, the model combines empirical data with subjective expert information to predict outcomes for a specific workforce. Individual company data can be input into the model to identify company-specific, cost-effective strategies that reduce long-term health risks and workforce health costs while minimizing the impact on productivity.

The project team has created a conceptual model utilizing various data from major sources including the CDC, AHRQ, Census Bureau and the Bureau of Labor Statistics on conditions, diseases, and other health data. The data have been processed into a usable format and placed in a common location, greatly improving accessibility and usability. Using data warehousing and data modeling techniques, the disease model will estimate

prevalence rates of the top ten most costly health conditions and diseases given basic company workforce demographics.

The next phases of the project will calculate direct and indirect costs to companies, incorporate company-specific data and perform sensitivity analyses for various risk management strategies.

About CHS

Founded in 1975, CHS is a leader in the management of nationwide workforce health programs. CHS serves Fortune 1000 corporations and the largest federal agencies, providing flexible, proactive, performance-based workforce health programs and business process outsourcing that result in bottom line benefits across the organization. Fortified by a foundation of best practices spanning over 30 years of experience, CHS' approach includes onsite health centers, a national network of CHS-certified physicians and health care providers, and medical readiness teams that deliver customized solutions for maintaining a healthier, more stable and productive workforce. A member of the Founder's Circle of the Occupational and Environmental Health Foundation, CHS also is a charter sponsor of the American College of Occupational and Environmental Medicine (ACOEM) Corporate Health Achievement Award.

Wyle Wins Joint Test and Evaluation Contract

A contract with a potential value of \$930 million over a 10-year period has been awarded to Wyle Laboratories, Inc. to support joint test and evaluation programs across the military services. Wyle will provide engineering support services to Joint Test and Evaluation (JT&E) programs directed or chartered by the deputy director for Air Warfare, Director, Operational Test and Evaluation, in the Office of the Secretary of Defense.

Wyle is one of several teams that will compete for tasks to develop tactics, techniques, and procedures that will allow the services to work more efficiently together, or address problems encountered by warfighters. The indefinite delivery/indefinite quantity award is for a 5-year base period for \$465 million with five 1-year options.

Wyle and its subcontractors will establish teams to support joint test force directorates with designing, planning, and executing tests; analyzing test results and documenting findings and conclusions; and transitioning test products and ownership to designated customers. Work under the contract will be performed at locations to be determined throughout the United States based on task orders received by the company. Staffing also will be determined by the number and duration of the task orders, which could last from a few months to several years.

The Office of the Secretary of Defense (OSD) sponsors the JT&E Program to conduct test and evaluation and provide information required by Congress, OSD, the Unified Commands and the Department of Defense

components relative to joint operations conducted by the Navy, Air Force, Army and Marines. The program has a requirement for technical and engineering support across a range of test activities in support of joint feasibility studies, joint test and evaluations, service specific test and evaluations and quick reaction tests.

About Wyle

Wyle Laboratories Inc., a privately held company, is a leader in aerospace services, life sciences, testing, research, special test systems and other engineering support services to the aerospace, defense, nuclear power, communications and transportation industries.

Mayo Clinic Demonstrates Degradation of Abnormal Alzheimer's Disease Protein

Investigators at Mayo Clinic and their collaborators have shown that inhibiting a molecule called heat shock protein 90 results in increased degradation of toxic accumulations of abnormal tau, a protein which aggregates to form damaging neurofibrillary tangles (NFTs) in Alzheimer's disease and related disorders. The researchers say their findings provide a potential therapeutic strategy for treating these diseases. The study appeared online Feb. 15 in advance of publication in the March issue of the *Journal of Clinical Investigation*.

Aggregation of abnormal tau is one of the pathologic hallmarks of a group of neurodegenerative disorders called tauopathies, which includes Alzheimer's disease. Many researchers believe once tau aggregates to form NFTs, brain damage and resulting dementia may be irreversible, and they hope that disrupting the aggregation processes will lead to better treatments. A Mayo Clinic molecular neuroscientist and his colleagues genetically and pharmacologically manipulated a system inside cells called the chaperone complex to inhibit heat shock factor protein 90 (Hsp90), one of many molecules in the chaperone complex. The complex acts, as its name suggests, as an escort system for abnormal or misfolded proteins, targeting them for either "correction" or "degradation." If the chaperone complex attempts a correction, but can not properly refold a substrate, the protein will then be targeted for degradation.

Mayo Clinic's group was the first to demonstrate that when the protein refolding pathway is blocked, it dramatically accelerates the degradation pathway in cell culture systems. In this study, the group blocked the refolding pathway in cell culture by silencing Hsp90 co-chaperone molecules critical to the refolding pathway through a process called RNA interference.

They then gave mice that were genetically engineered to contain the human tau gene an Hsp90 inhibitor called EC102 that colleagues had identified as a compound that inhibits Hsp90 in the brain. These experiments demonstrated that when EC102 was given, it selec-

See *CORPORATE NEWS*, p. 455.

tively inhibited the action of Hsp90 and increased degradation of abnormal tau proteins in these transgenic mice. Further, when the researchers looked in areas of the brain most affected by Alzheimer's disease, they observed that the Hsp90/degradation complex is present in a high affinity state compared to unaffected brain regions and control brain.

This directed activity of EC102 is encouraging from a drug development point of view. As a next step, the researchers want to conduct dosing experiments with a mouse model where tau expression can be turned on and off and treat these mice at specific intervals of developing tau pathology and memory deficits. They speculate that the optimal time to begin drug therapy may be before the degradation system, which acts like a cellular garbage can, gets too full and can't cope with any more abnormal tau.

This work was supported by grants from the Mayo Foundation and the Institute for Study of Aging.

Arizona State University and Mayo Clinic to Develop Cancer Vaccine

Researchers at the Biodesign Institute at Arizona State University (ASU) in Tempe and Mayo Clinic have announced they will collaborate on creating a vaccine designed to prevent the development of cancer. They will use the latest developments in laboratory and clinical sciences to reach their goal - finding components in cancer that could be used to vaccinate against the occurrence of the disease. There is even the hope that some of these unique components could be shared among different types of cancer and lead to broad protection from multiple tumors.

At the root of most cancers is a single cell going awry and dividing uncontrollably, producing a tumor. As cells become cancerous, they produce proteins that are unfamiliar to the human immune system, which should prompt a protective response from the body. Yet somehow, these stealth proteins evade the body's defenses and allow the cells to grow into a tumor.

In results from animal studies, pre-vaccination with these foreign proteins creates an immune response that prevents the tumor from forming. Unfortunately, each tumor's protein signature can be slightly different. In other words, even if two individuals have the same type of cancer, their tumors may be slightly different, and therefore the concept of a widespread preventative vaccine that would be effective in large numbers of people has been a daunting task. However, if common themes could be identified, it could provide a means for solving this problem.

This project is the first initiative undertaken under an umbrella partnership called the Mayo Clinic/ASU Center for Cancer-related Convergence, Cooperation and Collaboration (MAC5). Mayo Clinic and ASU have invested seed funds to launch this project and obtain the initial supportive data. Space has been allocated in a new research facility on the Scottsdale campus of Mayo Clinic, and additional faculty and clinicians are being hired to support this phase of the project.

About Mayo Clinic

Mayo Clinic is the first and largest integrated, not-for-profit group practice in the world. Doctors from every medical specialty

work together to care for patients, joined by common systems and a philosophy of "the needs of the patient come first." More than 2,500 physicians and scientists and 42,000 allied health staff work at Mayo Clinic, which has sites in Rochester, Minn., Jacksonville, Fla., and Scottsdale/Phoenix, Ariz. Collectively, the three locations treat more than half a million people each year.

ALPA Responds to Age 60 NPRM Announcement

The president of the Air Line Pilots Association, International (ALPA), is forming an internal work group to develop a response to the FAA administrator's announcement to conduct rulemaking on the mandatory airline pilot retirement age. The mission of the panel will be to study the effects of potential changes to the FAA Age 60 Rule and to develop recommendations on how ALPA can address the issue of pilot retirement with the goal of having a positive effect for ALPA members. The committee will uphold ALPA's 75 year-long commitment to ensuring the highest level of aviation safety. The FAA announcement and the formation of the ALPA Blue Ribbon Panel come in the wake of 5 years of tumult for the airline pilot profession. Furloughs, pay and benefit cuts, and a lack of job growth have put severe economic pressure on airline pilots of all ages and experience levels. The panel will present its recommendations to the ALPA Executive Board, composed of the leaders of ALPA's 40 pilot groups, at its May 2007 meeting.

About ALPA

The Air Line Pilots Association, International, is the largest airline pilot union in the world and represents 60,000 pilots who fly for 40 U.S. and Canadian airlines.

AOPA's TurboMedical Accepted by FAA

The Federal Air Surgeon has determined that aviation medical examiners (AMEs) may now accept printouts from Aircraft Owners and Pilots Association's (AOPA's) TurboMedical, as long as the printouts are signed in the presence of the AME or AME's staff. Until now, AOPA members who use TurboMedical have had to transcribe the information from their printouts to FAA Form 8500-8.

FAA aeromedical officials were satisfied with some changes AOPA made to the TurboMedical layout, which eliminated confusion in the FAA's Aerospace Medical Certification Division. The one catch is that it needs to be attached to a blank Form 8500-8 for tracking purposes.

AOPA created TurboMedical nearly 6 years ago to simplify the process of applying for a medical certificate. The online member benefit walks pilots through the process, asking questions about their health and helping to identify topics they should discuss with their AMEs.

Several years ago the FAA began developing its own online medical application system, known as FAAMedXPress, which will permit pilots to submit information electronically. Internal legal wranglings have delayed the launch of the FAA online version, but once the FAA's system is activated, AOPA intends to

renew its push to have TurboMedical information accepted online.

About AOPA

With a membership base of more than 410,000, or two thirds of all pilots in the United States, AOPA is the largest, most influential aviation association in the world. AOPA has achieved its prominent position through effective advocacy, enlightened leadership, technical competence, and hard work. Providing member services that range from representation at the federal, state, and local levels to legal services, advice, and other assistance, AOPA has built a service organization that far exceeds any other in the aviation community.

Kelsey-Seybold Signs Land Deal

Kelsey-Seybold Clinic has purchased a 10-acre parcel from V&W Partners, Ltd. - the first step in its plans to develop a 60,000-square-foot, state-of-the-art medical and diagnostic center. Kelsey-Seybold's latest medical office will be part of a 640-acre master-planned development, called The Vintage, located near the HP campus in Northwest Houston, at the corner of Louetta on State Highway 249.

Kelsey-Seybold expects to break ground on its "Medical Office of the Future" in spring 2007. When completed, patients of the new clinic will find comprehensive multi-specialty care with more than 20 physicians complemented by services including on-site Magnetic Resonance Imaging (MRI), Computerized Tomography (CT), digital X-ray and mammography services, laboratory and pharmacy, for a one-stop healthcare experience. The facility will also feature a 12,000-square-foot St. Luke's Minor Emergency Center providing patient care 24 hours a day, seven days a week, and staffed by St. Luke's Episcopal Health System Emergency Room physicians and medical personnel. Harrell Architects will design the Clinic, which will serve as the new home for the physicians and staff currently housed at Kelsey-Seybold's Willowbrook Clinic.

About Kelsey-Seybold

Kelsey-Seybold Clinic is Houston's largest community-based physician group, founded in 1949 by Dr. Mavis Kelsey in Houston's famous Texas Medical Center. Kelsey-Seybold offers the services of more than 300 physicians in over 40 medical specialties. The Clinic's 18 Houston-area locations offer convenience to patients close to home and work. Kelsey-Seybold has proudly served the National Aeronautics and Space Administration since 1966 and today provides medical services on-site at both Johnson Space Center and Moscow. The Kelsey Research Foundation works to improve community health through information, education and research studies. Kelsey-Seybold Clinic is part of the St. Luke's Episcopal Health System.

Become a Corporate Member of AsMA!

For information on becoming a Corporate Member, please call Gloria Carter at (703)739-2240, ext. 106, gcarter@asma.org; or Dr. Marian Sides at mbsides@sbcglobal.net

NEWS OF MEMBERS

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



Lestage



Leino

Lestage Elected to MOAA Board

Rear Adm. Daniel B. Lestage, MC, USN-Ret., a former AsMA President, has been elected to the Board of Directors of the Military Officers Association of America (MOAA), the nation's largest veterans organization for active duty, National Guard, Reserve, former, and retired military officers and their surviving spouses. He will serve for 6 years on the 36-member Board. MOAA is headquartered in Alexandria, VA, and has approximately 360,000 members.

Dr. Lestage, a native of Jennings, LA, attended LSU Baton Rouge, graduated from the LSU School of Medicine, the Tulane School of Public Health, and the Industrial College of the Armed Forces. As a naval flight surgeon he served aboard aircraft carriers deployed to Southeast Asia, the Mediterranean, and North Atlantic, as well as with staffs afloat, and in several naval hospitals. He served on the staff of the Chief of Naval Operations and as the Fleet Surgeon for U.S. Naval Forces Europe, the U.S. Atlantic Fleet, and commanded the Naval Medical Command in Portsmouth, VA.

Dr. Lestage is a Fellow of the American College of Physicians, the American College of Preventive Medicine, the American Academy of Family Physicians and the Aerospace Medical Association. He is a retired Vice President of Blue Cross and Blue Shield of Florida and serves on the boards of several non-profit organizations. He is a member of the Northeast Florida Chapter of MOAA.

Tuomo K. Leino, M.D., Ph.D., has been elected as president of the Finnish Aerospace Medical Association. Capt. Leino is chief flight surgeon in the Air Force Academy (the Finnish Air Force) situated in Tikkakoski, Finland.

Past AsMA President **Michael A. Berry, M.D., M.S.**, recently closed his private practice in aerospace medicine with his father, Past AsMA President **Charles A. Berry, M.D., M.P.H.** He has taken a Senior Executive position with the FAA in Washington, D.C. He is the Manager, Medical Specialties Division. In this position, he will be responsible for medical policy and appeals at the Federal Air Surgeon level. Dr. Charles Berry will continue consulting in aerospace medicine under the auspices of Preventive & Aerospace Medicine Consultants, PA, but will no longer see pa-

tients. He will work out of his home using the same office telephone number as previously.

Col. Breck J. Lebegue, formerly Chief of Aerospace Medicine, Air Force Research Lab, Human Effectiveness Directorate at Brooks City Base, TX, is now the Chief of Aerospace Medicine, 75th Medical Group at Hill AFB, UT.

Col. (Dr.) Reid T. Muller, formerly Commander of the 174th Medical Group, NYANG, has been appointed the State Air Surgeon for the New York Air National Guard. Col. Muller is a Chief Physician, and Senior Flight Surgeon.

New Members

Bailey, James, DVM, M.S., Dipl.ACVA, Gainesville, FL
 Calderon-Avila, Andres, M.D., Lake City, FL
 Carey, David T., Lt.Col., USAF, MC, Andrews AFB, MD
 Cohen, Amos, Lt.Col., IAF, Herzelia, Israel
 Connelly, Ian, M.Sc., M.D., CCFP, Vancouver, BC, Canada
 Fuller, Scott, B.A., D.O., Akron, OH
 Hudson, Christopher, Maj., USAF, MC, FS, Albuquerque, NM
 Johnson, Ellyn Marie, Cleveland Heights, OH
 Jones, Thomas C., LT, USN, Milton, FL
 Manderson, Kate, M.B.B.S., D.Av.Med., Huskisson, Australia
 Murphy, Kerry, MAJ, ANG, MC, East Moriches, NY
 Roberts, Arthur J., B.Sc., M.B.B.S., D.Av.Med., Swaneick, Southampton, UK
 Staten, Robert, M.D., Orange Park, FL
 Svensson, Rene, M.D., Ronneby, Sweden
 Valentine, Johannah, LT, MC, USN, San Diego, CA
 Wegner, Timothy M., MSgt., USAF, NC, O'Fallon, IL
 Wells, Philip H., M.D., Nebo, NC
 Wong, Chee Ming, M.B.Ch.B., London, UK

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Obituary Listing

AsMA has just learned that **Quincy E. Fortier, M.D.**, an Emeritus Member, has died. He had been a member of AsMA since 1959.

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 Sheraton and Hilton Hotels
 Boston, MA

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

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