President's Page

We are drawing to the end of this calendar year. It is a time when we think of family and friends and mark the change from the old year to the new.

The aerospace medicine community is a family, working together for the safety of those who fly. Since you are reading this, it is likely that you are a member of AsMA (if not, come on in and join us) and you appreciate the benefits of belonging to our extended international family. But are you aware of the other aerospace medical families with whom we co-operate? I don't intend to list them all, but I do wish to mention the International Academy of Aviation and Space Medicine. The 'Academy', as it is known, organises an annual scientific congress covering a broad field of aerospace medicine held in a different country each year. This year we met in Warsaw and next year will be in Bangalore. It is not an exclusive club - active participation is welcome from all, so consider attending the Congress. The Secretary General is AsMA Past-President Dr. Claude Thibeault whom you can contact via the web site.

Turning back to the AsMA family, did you know that all are welcome to attend the scientific programme of the Airlines Medical Directors Association on the first Saturday of the AsMA congress, and the meeting of the Civil Aviation Medical Association on the Sunday? You do not have to be a member and there is no charge - you will be made very welcome and to feel part of the family.

Dr. Russell Rayman and I represented AsMA at the XXII International Meeting of Aerospace Medicine sponsored by the Asociacion Mexicana de Medicina de Aviacion in Playa del Carmen, Mexico, in October 2005. A number of other AsMA members were present. Unfortunately, Hurricane Wilma decided to join the meeting on the second day so, after the impressive opening ceremony, the priority changed from aerospace medicine to survival.

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

Three hundred and fifty hotel guests of all nationalities were evacuated into the congress centre, where we attempted to make ourselves comfortable on the floor as we listened to the increasing wind and rain battering the battened building. The eye of the hurricane struck the next morning with a sudden huge drop in pressure, leading the roof to be sucked off the building. Three hundred and fifty very frightened people evacuated rapidly to the kitchens where we spent the next 2 days and nights. The television pictures give no hint of the real destructive power of the hurricane - we are all helpless in the face of these natural phenomena.

The bonds of the aerospace medicine family were certainly strengthened by this shared experience. We may not have learned any new aerospace medicine, but we certainly learned a lot about each other. Practical and emotional bonds were formed, and the newly acquired family ties will last a lifetime. Dr. Amezcua and his colleagues did everything possible to assist those of us stranded in the aftermath of the hurricane, and we are all grateful to them and their families.

I wish you and your families a peaceful and happy Christmastide, and Penny joins me in wishing you a happy and prosperous New Year.

Executive Director's Column

Rayman

A New Era

We are entering a new era. Many of the great changes now in progress in the field of aerospace medicine were not predictable 5 to 10 years ago. For example, the space program has been somewhat adrift since the Columbia accident. Furthermore, there are plans to phase out the Shuttle by 2010 and replace it with a new vehicle, the Crew Exploration Vehicle (CEV). On top of this, the U.S. Government is incurring great expenses due to the wars overseas as well as the disastrous hurricanes that recently ravaged our Gulf Coast. All of this means that there will likely be significant budget cuts in some areas--and one target is space life sciences/medical research. At the time of this writing, these programs are in serious jeopardy, although one wonders how President Bush could endorse a Moon/Mars Mission and at the same time preside over an administration that might allow severe curtailment of research so necessary to the health and safety of astronauts/cosmonauts on long duration missions. (It is no secret that today's countermeasures are ineffective, necessitating a critical requirement to find new and effective ones.)

AsMA, along with our colleagues from the Exploration Life and Medical Sciences (ELMS) coalition, has made repeated visits to NASA Headquarters and Capitol Hill sounding warnings loud and clear to NASA officialdom and key members of Congress that while it is understandable that monies for the space program must be redirected to the production of the CEV, we must not allow our research community to fall below a critical mass.

Likewise, there are significant reductions as well in military budgets worldwide leading to cutbacks in military aerospace medicine. Here at home we are seeing scientists retiring without being replaced, reductions in personnel, and decreasing levels of aerospace medicine research at military institutions. For example, Brooks City-Base (formerly Brooks AFB), which is professional home to so many of us worldwide, is slated to close within a few years. We can only hope that the activities that are now being conducted at Brooks will be continued at a reasonable level at its new home (most likely this will be Wright-Patterson AFB, OH).

Once the research community falls below a critical mass, scientific expertise and infrastructure is lost, making revitalization very difficult in the event of an urgent military need in the future. To reduce our science infrastructure to such a critical level is clearly short-sighted.

In the civil aviation sector, we continue to see a dwindling number of personnel in the medical departments of the world's airlines. I hear this repeatedly from many airline medical directors. At the time of this writing, one major airline in the US will be closing its medical department within a few weeks. We are also seeing in the US a reduction in the number of AMEs. In recent years there were about 6,000 - - the number is now reduced to just over 4,000 with more reductions on the horizon.

Getting very close to home, we are experiencing an erosion of membership in AsMA (This is true today of most medical associations/societies). Thirteen years ago, when I became Executive Director, the membership was approximately 4,000 but since then we have lost about 1,000 members giving us a current membership of about 3,000. I do not think this is attributable to costs, dissatisfaction with the Association, the journal, or our Annual Scientific Meetings. According to all surveys we have taken as well as meeting critiques, AsMA gets extremely (one might even say embarrassingly) high marks. I think the real reason is that our worldwide aerospace medicine community has far fewer numbers than it did in years past. The number of AsMA members becomes a reflection of the current population of those involved in some aspect of aerospace medicine. Furthermore, practically every member we have lost has told us they have dropped membership because they have taken another professional direction or that they have fully retired.

At the Annual Scientific Meetings of the Aerospace Medical Association, evidence of a shrinking research community is obvious by the papers that are presented. Although most of the papers are of high quality, for the most part they are narratives. We see fewer and fewer research papers that test a hypothesis with control and experimental groups. This is clear evidence of our eroding research community in the military and civil sectors worldwide.

To some ears, this might seem like doom and gloom, but it does not sound that way to me. Aerospace medicine will always be in demand by civil/military aviation and the space program (especially with space tourism on the horizon). We will always have a hard core number of those in clinical practice, research, operations, management, and academia. It's just that our numbers will be smaller. We can certainly continue on in style, but on a smaller scale and this we will do. There are many medical associations that are much smaller than AsMA and not only survive, but thrive. We will simply have to streamline and make course corrections as necessary.

Of course, everything seems to go in cycles. We just happen to be living in a time of some disengagement, but being an optimist, I believe we will see a resurgence in the coming years. But in the meanwhile, we are in a new era.

CAMA Award presented to Bagshaw

During the Civil Aviation Medical Association meeting in Charleston, SC, on October 8, 2005, the Forrest M. and Pamela Bird Recognition was presented to **Professor Michael Bagshaw** for exceptional contributions to the safety of civil aviation through original research, applied practice of untiring advocacy of the importance of health education and medical support of aviators. Dr. Bagshaw has been a leader in a number of organizations dedicated to aviation and the furthering of the art and science of aviation medicine (and is AsMA's current president). He is a pilot, teacher, administrator and an inspiration to many young pilots and physicians who have, through his efforts, gained increased understanding of the role of the medical examiner in promoting and advancing the health of aviators.

Online Journal FREE to Members

Starting in January 2006, the online version of *Aviation, Space, and Environmental Medicine* will be available as a Member Benefit for FREE. Simply go to the AsMA website at www.asma.org and log into the Member Home page and follow the link to the online journal through Ingenta.

Automatic Dues Increase Effective January 1

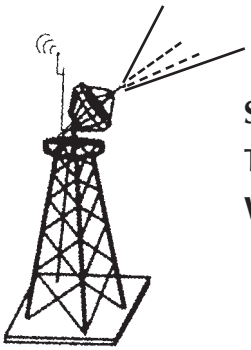
New Membership Rates:	
Regular Membership	$225
Student/Resident	$112
International Member with Air Delivery	$260
Member & Spouse (1 journal)	$280
3-Year Membership	$520
Life Membership	$3,375
Technician	$115

NOTICES

December's History Column is online ONLY!

December 15 is Deadline for Award Nominations!

Go to the AsMA website for details!



Science & Technology Watch

Keeping You Informed Of The Latest Advances In Science And Technology

Ever wonder what the big deal is about having complied with ISO 9000? Why should medical practitioners, aeromedical clinicians, and researchers be aware of these standards much less conform to them? This month's column from CAMI makes it all very clear why this is important to all of us.

What is ISO?

Nelda J. Milburn, Ph.D., Estrella Forster, Ph.D., Carol Manning, Ph.D.
FAA, Civil Aerospace Medical Institute, Oklahoma City, OK

Overview

ISO, the acronym for International Organization for Standardization, is derived from the Greek word isos, meaning equal, which actually captures the essence of the organization's goal-to "facilitate international coordination and unification of industrial standards" (see www.iso.org). ISO encompasses over 150 countries that form a (non-governmental) network including one voting member per country. ISO began in 1947 with the objective of developing common international standards in many areas.

Currently, technical committees, subcommittees, and working groups of 50,000 experts, participate annually to develop ISO standards (technical agreements) that provide the framework for compatible technology on a worldwide scale. The ultimate goal for developing common international standards was to facilitate international trade and allow the end user to compare prices from providers, while knowing that the products are similar in quality because their process standards are equivalent.

There are nine technical sectors based on the International Classification for Standards (ICS) --broad categories into which all processes can be grouped: 1.) "Generalities, Infrastructures, and Sciences" includes such things as terminology, standardization, documentation, sociology, services, administration, transportation, mathematics, and natural sciences; 2.) "Health, Safety, and Environment" consists of health care technology and standards for protecting the environment and our health; 3.) "Engineering Technologies" includes metrology, physical phenomena, mechanical systems, manufacturing and electrical engineering, energy and heat transfer engineering, precision mechanics, and jewelry; 4.) "Electronics, Information Technology, and Telecommunications;" 5.) "Transport and Distribution of Goods," including road, railway, marine, aircraft, and space vehicles; 6.) "Agriculture and Food Technology;" 7.) "Materials Technologies" such as textile, leather, clothing, mining and minerals, petroleum, metallurgy, wood, glass and ceramics, rubber and plastics, paint and color industries; 8.) "Construction" includes building materials and civil engineering; 9.) "Special Technologies" includes a few esoteric enterprises like military engineering, sports, and entertainment.

What is ISO 9000:2000?

The quality management standards that apply to all types of organizations, regardless of their size or nature, are contained in a set of three documents called ISO 9000:2000, ISO 9001:2000, and ISO 9004:2000 (see www.iso.org). ISO uses a numbering system to identify groupings of documents. You are probably familiar with a similar technique used by libraries that is known as the Dewey Decimal System. In the ISO numbering system, the 9000-series is reserved for quality management documents, and the "2000" tacked onto the series number indicates the revision date. Consequently, the current guidelines that promote quality are known as ISO 9000:2000. (For this article, the revision date will be dropped from the reference to each document.) ISO 9000 contains the quality management systems fundamentals and vocabulary, ISO 9001 contains the quality management systems requirements, and ISO 9004 contains the quality management systems guidelines for performance improvements. The collective documents are called ISO 9000 quality guidelines. The intention of the guidelines is to promote quality by providing process standards, which are very different from product standards (also available from ISO for organizations such as aerospace, banking, drilling, textiles, software development, biotechnology, and many more). ISO 9000 can assist both product and service-oriented organizations and governmental agencies to achieve standards of quality that are recognized and respected throughout the world.

So what? How does that apply to my organization?

It is easy to understand that some standards are necessary; for example, if a screw fails in your child's swing set, you would expect to be able to purchase a replacement screw that fits without having to obtain it from the swing set manufacturer. Likewise, standards in quality grading allow you, the consumer, to compare prices among suppliers. Often, we overlook the role of standardization and the benefits it provides us, as consumers, such as product reliability, safety, quality, efficiency, and interchangeability. We are unhappy when products are not compatible, such as the many different DVD formats that are available on the market. Consequently, we expect manufacturers to produce standardized products.

However, a large number of ASEM readers work for a governmental agency or a university, and the applicability of ISO to our jobs may be less obvious, especially for service-, teaching-, or research-oriented organizations. Obviously, many facets of quality management transcend traditional product manufacturing enterprises such as a need for competent personnel who have the right experience, education, training, and skills. Also, all projects have some infrastructure needs such as a workspace, hardware, software, utilities, equipment, and support services; and those infrastructures must be maintained. Similarly, each organization, regardless of its size or purpose, has goals for the quality they wish to have associated with their organization, regardless of whether those are explicitly stated. Furthermore, the meaning of quality may be different for each individual, organization, and particular set of circumstances under which the word is defined. ISO 9000 defines the term quality as the "degree to which a set of inherent characteristics fulfils requirements" (2000, 3.1.1, p. 7). ISO 9000 requires organizations to define and manage their quality policies ("overall intentions and direction of an organization related to quality as formally expressed by top management" 2000, 3.2.4, p. 8), and to formulate and plan a quality management system (2000, 3.2.3) that is complete with an appointed management representative to oversee it. The ISO quality management systems requirements, fully covered in ISO 9001, address many other core issues such as communication within the organization, documentation, purchasing, product planning, just to name a few.

ISO 9000, like many other quality initiatives, such as Total Quality Management (TQM), encourages organizations to communicate with each of their customers to discover their needs. ISO 9000 defines customer satisfaction as the "customer's perception of the degree to which the customer's requirements have been fulfilled" (2000, 3.1.4, p 7). ISO 9000's philosophy related to customers is in stark contrast to the adage advocated by the Field of Dreams movie that stated, "If you build it-they will come." On the contrary, just because you produce a quality product, it does not necessarily hold that it will fit the customer's needs. For example, there are 2 large glass-manufacturing companies in my hometown, one of which made gallon-sized glass milk jugs. Although that company made a high-quality product, it was not what the customer wanted and the company's choice to continue producing the product resulted in a severe loss of revenue, greatly affecting both the glass factory and the economy of the whole community. Therefore, identifying your customers, then identifying, monitoring, measuring, and verifying their needs and comparing those needs to the products or services you are producing is vital to surviving and thriving in business and research as well.

"Yes," you say, "I agree that we all have customers, we learned that from TQM, but we are not selling a product." To some extent, that is true, but if we fail to provide quality service to our customers or sponsors, how likely is it that those same customers or sponsors will actively advocate funding your future projects or choose to slide the more desirable projects and funding to another work group?

The benefits of implementing ISO 9000 are not limited to improved customer satisfaction. Actually, the quality management system requirements stated in ISO 9001 are simply sound business principles that have been compiled by the voting membership of ISO. For example in ISO 9001, clause 6.2.2 applies to "competence, awareness and training" (2000, p. 6) of employees and states that, "The organization shall determine the necessary competence for personnel performing work affecting product quality [and shall] provide training or take other actions to satisfy these needs." The requirements of that clause will benefit both the employees and the organization.

One last point, specifically addressed to

See SCI TECH WATCH, page 1192.

From SCI-TECH, p. 1191

sway you toward further investigating the benefits of implementing ISO 9000 quality principles at your work place, is the aspect of continual improvement. Consider the advancements in personal computers during the past two decades, especially in user-friendliness and improved processing speed. As someone who used to spend hours in a university computer lab waiting for batch jobs to be processed, I am certainly glad that the processing speed of computers has continually improved. Whether those improvements were a direct result of implementing ISO or some other quality initiative, or simply the result of free enterprise, is unknown. Regardless, an integral part of ISO 9000 is continuous improvement of the quality processes, which is only possible if those processes are monitored, measured, evaluated, and documented. Because it is the process and not the number of products that is measured and evaluated, employees need not fear that keeping track of the processes will result in management dictating that more widgets must be produced. Continual improvement does not mean more widgets, more research reports, or more medical evaluations; it means better widgets, better research reports, and better medical evaluations.

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The AsMA Science and Technology Committee provides this column as a forum to introduce and discuss a variety of topics involving all aspects of civil and military aerospace medicine. The Watch can accommodate up to three columns of text, which may include a figure or picture to illustrate your concept.

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

MEETINGS CALENDAR 2006

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

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

AsMA MENTORSHIP PROGRAM

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

Please take advantage of the great new feature!

AsMA Future Meetings

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

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

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

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

Where's the Proof?

Evidence Based Medical Certification: an International Challenge

CAMA Sunday, Orlando Florida, with AsMA

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

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

Don't miss it!

Attention AsMA Members!! Use the Website! www.asma.org

The MEMBER HOME area has been designed for **you**!

To log in the first time--use your member id number as printed on your membership card and your first initial followed by last name. You will then be prompted to change your password for security purposes. Then you can go to your MEMBER HOME page.

On the MEMBER HOME PAGE you can:

- Renew your membership
- Change your address
- Access the Journal Online starting in January 2006
- Read announcements concerning membership
- Search for members
- Sign up as a Mentor or Mentee
- If you are on a committee, you can view files posted by the committee chair.

If you have a file to share, send it to your committee chair for posting.

The AsMA website has all the information you need to learn about your association, submit abstracts to the annual meeting, access the journal manuscript submission site, access the online journal, and much more. There is a News Announcements section, a Membership page, a Journal page, a Meetings and Events page, Links to Constituent and Affiliate Organization pages, just to name a few of the features.

New features, such as a Job Fair/Classified Ad section, new search capabilities, and bulletin boards for committees, will be added in the coming months.

Please, **use the website** and let us know what you think!

Send information for publication on this page to: **Dwight A. Holland, Ph.D.**
DwightHoll@aol.com

International Space Activities Reveal a Vibrant Fall Schedule

This past fall we have seen a rather spectacular flurry of activities from our international partners in the space community that touch upon space medicine.

The International Academy of Aviation and Space Medicine (IAASM) had its annual scientific congress in Warsaw, Poland, and while I did not have the pleasure of attending the congress this year, emails from the meeting attendees that week said that the meeting was excellent and that they were delighted that they had taken the time to attend the congress. The congress leadership and Polish aero-community worked hard to make it a success and they are to be congratulated for hosting the IAASM Congress.

The United Kingdom held its second annual Space Medicine Day at the UK Space Centre in Leicester, England, in mid-October. Despite a very heavy personal academic schedule, **Dr. Alyson Calder** and her team put together an outstanding array of presentations and posters for the 2nd UK Space Medicine Day. Presenters from many countries attended and exchanged ideas and information over well-placed "coffee breaks" in the conference area. Nearly every major area of space medicine was discussed from surgical techniques/ problems in space, to dust problems on the Moon/Mars, and psychosocial/ group dynamics issues.

World-renowned authorities such as **Drs. Mike Bagshaw** and **John Ernsting** contributed their extensive experience and perspective to the meeting. After the day of seminars, many of the conferees went out for a nice dinner and a later pub visit for socializing activities. From this meeting and the later dinner activities, new contacts and friendship were developed, and plans made for additional work facilitated by this outstanding meeting. We even hear that several blokes put together an impromptu "road trip" and toured the English and Eastern Welsh countryside in a rather small rental car— "all good practice for getting along during an international multi-cultural spaceflight, me mates!" The small group toured the region in attire ranging from jeans to suits and high-heeled boots... since it was a last-minute trip. Quite a motley crew.

UK SPACE DAY--Dr. Alyson Calder (conference organizer), Ricardo Cardoso (Brazil), and Marlise Santos (Brazil) near the Brazilian Space Life Sciences poster display. Photo courtesy of Ricardo Cardoso.

ERNSTING LECTURES--Dr. John Ernsting lectures to the 2nd UK Space Medicine Day participants at the UK National Space Centre. Photo courtesy of Ricardo Cardoso.

Thanks again to Dr. Alyson Calder and her team for putting together such a successful meeting! The UK Space Medicine Day participants are discussing how to organize themselves into a more cohesive group with formal ties and structures. We wish them well.

The safe return of two Chinese astronauts on October 17th, 2005, to Earth from an orbital mission highlights China's recent emergence as a world economic, technological, and social power. This is the second successful Chinese manned spaceflight (or "person-rated" spacecraft to be more accurate). Five years ago, China clearly stated its long-term space intentions in a "White Paper" by planning to send a probe to the Moon and having a small space station in Earth orbit by approximately 2010. This is an ambitious program that seeks to avoid the "crash program" of some past programs to attain a goal too quickly that cannot be supported over a longer period of time. Chinese space strategists have studied the U.S. and USSR/ Russian past space activities and concluded that orbital missions, followed by an orbital outpost, then possible later lunar missions are within the capability of the "steady-as-you go" philosophy of the Chinese space and national authorities. "The longest journey begins with the first step."

China's successful entry into the human spaceflight arena is a tremendous technical and national accomplishment, and we hope that the Chinese will participate more fully in our activities in the Space Medicine Branch of AsMA as their program evolves.

In other national and commercial spaceflight news, space tourist/researcher Dr. Greg Olsen, American astronaut William McArthur, and Russian cosmonaut Valery Tokarev blasted off from the Baikonur launch facility in Kazakhstan on October 1, 2005, and docked with the space station 2 days later. McArthur and Tokarev will stay aboard the station for 6 months, while Olsen returned several days later with John Phillips and Sergei Krikalev, who had been there since April 2005. Dr. Olsen is the third non-pilot space venturer that has helped to fund his launch to orbit. He reported from the station that it was worth every dollar that it cost him.

Commercial space is likely to expand rapidly in the next 10-15 years barring no major back-to-back accidents (and even so, these will only be temporary setbacks if they occur). The capture of the X-Prize with three flights into space in a relatively short period of time by Mike Melville and Brian Binnie using Burt Rutan's Scaled Composites "SpaceShip One" is a breakthrough that portends a dynamic and fast-evolving space commercial sector that we can only imagine from this point is history. Already, Virgin Airways and Scaled Composites have agreements to develop the next generation vehicle that will be fully "tourist-operational," and there will be other organizations eventually involved in this sector, you can count on that.

These very recent historic events in multiple places and from several organizations indicate to us that we are in the pre-dawn hours of an exciting new space age and, as such, we are at the threshold of a new paradigm for access to space travel. This is somewhat similar to the conditions during Charles Lindbergh's time just before the expansion in aviation activity in the 1930s after he crossed the Atlantic Ocean solo. This era will require expertise in space medicine and human engineering issues in the micro- and low-gravity environments of Earth orbit, the Moon, and later Mars.

We hope that whether your interests are governmental or commercial space travel, you will join us in the Space Medicine Branch in that quest.

The recent space developments may be "not a bit too soon" for *Homo sapiens* from a geological time perspective, because a one-planet only, barely space-capable species, living on the third rock from a star we call the Sun (with an exceedingly thin atmosphere that hardly protects us on a 'good day'!) is only a large meteorite away from near or total disaster. The fossil record and weathered impact craters already on this planet attempt to warn us about "rolling the dice" of neglect for species survival by having a very limited spacefaring capability for a one-planet species ... repeatedly and impressively so.

Dwight Holland, Ph.D.
President, Space Medicine Branch

POST MEETING DINNER--Part of the UK Space Medicine conferees who gathered together for dinner after the scientific program. Photo courtesy of Ricardo Cardoso.

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

Message from Our President - Home for the Holidays

By Trish Trifilo

"Oh there's no place like home for the holidays," so the song goes. But "home" can be an elusive item for a military family. Is that home where your parents are? Or where you have a house? Or where the air force sends you? And home is often many hours, and hundreds of dollars, away from family. "Over the river and through the woods to Grandmother's house" we didn't go. Usually we made the best of the place where we currently resided.

"Thumpety, thump, thump look at Frosty go" is a hard concept to explain to young children living in Hawaii, and "Jingle bells" can be heard during the Jingle Bell Run down Kamehameha Boulevard, not on a sleigh. But, the warm sunshine, the gentle surf on the beach, and geckos racing up the Christmas tree did have a certain appeal.

Bitburg, Germany was much more like "walkin' in a winter wonderland". In fact, it was darn cold after Hawaii! On our dairy farm residence "the cows were lowing," there were many "friendly beasts," and we could "hear the bells on Christmas day, their old familiar carols play." For one Christmas, Rich was deployed to Saudi Arabia for war. How we prayed for a "silent night, holy night" where "all was calm and all was bright." We reflected on what was really precious to us. We realized how important life and family was. It was one of the most blessed holidays we had. Not happy, but blessed.

In Germany we started taking holiday adventures. The KrisKindel mart in Cologne was our favorite haunt as the holidays drew near. There were "city sidewalks, busy sidewalks dressed in holiday style; in the air was a feeling of Christmas." We would take sleigh rides in the Austrian countryside while the "snow was falling and friends were calling yoohoo" (or was that Susi yodeling?).

San Antonio had a riverwalk with tiny lights and Mexican fiesta colors and songs. "Feliz Navidad" filled the air. As the kids got older we were more into "jingle bell, jingle bell, jingle bell rock" than "Rudolph the red nosed reindeer." Then "we saw three ships come sailing in" to the coast of North Carolina. Here "the holly and the ivy" were not in our woods. We decided the best way to have "a holly, jolly Christmas" was to "let it snow, let it snow, let it snow", and we would ski. So we were off to Vail.

In 2002 the wilds of Australia were calling "do you see what I see" to all those little lambs. With gifts of sweaters, wooly socks, and snorkels we headed to the cold winds of Korea. As you can see we had really changed that "home" concept. The next year we took the "field and fountain, moor and mountain, following yonder star" into Thailand. We spent the holidays riding elephants and floating down a river in a bamboo raft. (You find a song for that one.)

Now we have found "the most wonderful time of the year" in Abilene, TX. Last year I sang in the church choir, placed gifts under the "Christmas tree most fair and lovely," and planned and attended all those holiday parties. The four of us plus my mom enjoyed a "white Christmas" (yes…in west Texas) and a week cocooned together at home with family. "For the holidays you can't beat home sweet home."

One of the places I feel truly at home is with the members of the Wing. I appreciate the stories you share, the caring thoughts, and lasting friendships. You are the "Silver and Gold" of my holidays. I look forward to receiving your cards and emails during the holidays. Gather your loved ones and family close to home. I wish all of you a happy and blessed holiday season, and a happy new year!

By-law Change

First Notice

A motion was made and passed by the Board to remove section 4 of Article II in the By-Laws: "Honorary members shall be individuals who have provided significant contributions to aviation, aerospace, and/or environmental medicine research, education, operations, or in related life sciences activities. They shall be approved and elected by the Executive Board and shall not vote, hold office, or pay dues." This motion will be brought to the membership for a vote during the May meeting.

Meet Our Honorary President Penny Bagshaw

A Welshwoman by birth, Penny Bagshaw, wife of AsMA President Mike Bagshaw, grew up in the town of Swansea in Wales. After attending high school in Wales, Penny left to study chemistry at University College London, where she gained her BSc., and then went on to the University of Reading for her Master's, studying the interface between chemistry and education. Subsequently she became a chartered chemist and a chartered scientist, and she is currently a fellow of the Royal Society of Chemistry.

Unsure of her career aspirations when she left university, Penny decided to try schoolteaching for a while. It turned out to be the right thing for her, and she has been doing it for the last 35 years! She has taught in five high schools, one in Wales but most in the south of England, always teaching chemistry and sometimes music, but increasingly dealing with the guidance of 16-18 year-old students as they move from school to university. Says Penny, "My present job is Assistant Headteacher at Langley Grammar School, a multi-cultural academic high school not far from London Heathrow Airport. I am now beginning to look forward to retirement in a few years and taking up some new challenges."

"Aside from my professional life, my main interest is music, an interest shared with Mike, and the reason we first met, at the age of 17, in our music teachers' house! We have known each other for over 40 years and recently celebrated our 35th wedding anniversary. We continue to spend a lot of time making music, Mike as a violinist, me as a pianist and both as choral singers. We sing regularly in the chapel choir at the Royal Military Academy, Sandhurst. I conduct my school choir which has, in addition to school performances, sung at the Royal Albert Hall, London, and at St. George's Chapel, Windsor Castle."

"Mike and I have two daughters. Caroline, 27, graduated from the University of Newcastle in the north of England having studied English and linguistics: ironically she is now working on the business side of aviation medicine. Elizabeth, (Lizzie) 23, has just graduated with a Master's from the University of Bristol in the west of England. She studied physical geography and has started a Ph.D., with the prospect of travelling to Antarctica for 3 months' fieldwork later this year. Both girls are also musical, with Caroline as a flute player and Lizzie as a cellist and choral singer. As a family we have taken advantage of Mike's flying skills to travel within the UK and Europe, especially to our favourite holiday haunt in the Isles of Scilly, 28 miles west of Land's End."

"We are fortunate that Mike's work in aviation medicine has enabled us to travel to many places and meet so many interesting people. I'm really looking forward to the AsMA meeting in Orlando, to sharing in Wing activities, renewing previous acquaintances and to getting to know more of you."

Join the Wing!

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

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Aerospace Medical Association
320 S. Henry Street
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News of Corporate Members

Martin-Baker Becomes AsMA's Newest Corporate Member

Martin-Baker, the world's longest established and most experienced manufacturer of ejection seats and related equipment, recently became the Aerospace Medicine Association's (AsMA's) newest Corporate Member. They are the only company that offers a fully integrated escape system that satisfies the very latest in pilot operational capability and safety standards. They offer a complete 'end-to-end service,' from helping the customer to establish operational safety and escape requirements, design, development and qualification, to ongoing support throughout the entire service life of the aircraft.

Martin-Baker appreciates fully that the equipment they manufacture may represent a crewmember's last chance to survive and that there can be no compromise. Every facet of the safety system from initiation, escape path clearance, ejection sequencing, stabilization, life support, and parachute descent to final rescue must work perfectly to safeguard a precious life. The aircrew member must also reach the ground uninjured, especially in a hostile environment, if they are to have the best possible chance of survival. It is because of this understanding, backed by 55 years of continuous ejection seat manufacture, that Martin-Baker can offer a fully integrated escape system that satisfies the very latest safety standards. Martin-Baker has currently saved over 7,000 aircrew lives in more than 90 Air Forces.

With headquarters at its original site in Denham Buckinghamshire, locations in France, Italy, and the United States, and representatives all over the world, Martin-Baker has established an extensive range of unique and modern facilities and specialist engineering capabilities to support ejection seat work and insuring that these products are of the highest quality and reliability, and will perform as designed—the first time. The company continues as a successfully family run business headed by the twin sons of the late founder, Sir James Martin, as joint Managing Directors.

ETC Subsidiary to Install Ride at Miami Metrozoo

Entertainment Technology Corporation (EnTCo), a wholly owned subsidiary of Environmental Tectonics Corporation (ETC), today announced that the Miami Metrozoo will install the award winning Wild Earth™ this fall. This version is the newest release of Wild Earth™, which includes a dual-language mode for English and Spanish versions of the show and article and new story elements.

Wild Earth™, the interactive Photo Safari simulator ride, was awarded a "Best New Product" award at the International Association of Amusement Parks and Attractions (IAAPA) show in 2004. In Wild Earth™, guests discover the thrill and excitement of an African Photo Safari as they experience and marvel at the array of wildlife and rich landscapes of the Serengeti. In Wild Earth™, the riders are in full control, navigating the vehicle through the stunning landscapes of Africa on a quest for that "perfect picture."

About ETC

ETC designs, develops, installs and maintains aircrew training systems, public entertainment systems, process simulation systems (sterilization and environmental), clinical hyperbaric systems, environmental testing and simulation systems and related products for domestic and international customers.

Sanofi-Aventis Working on Release of Exubera®

Sanofi-Aventis is working with the Federal Drug Administration (FDA) and the European Medicines Agency (EMEA) to make Exubera® available to patients with diabetes. Exubera® is the first non-injectable insulin treatment available in the United States and Europe that has been shown in a recently released study to significantly improve blood sugar levels in adults with type 2 diabetes. The open-label, 12-week, multi-center, randomized study involved 309 male and female patients, 35 to 80 years of age, with uncontrolled type 2 diabetes and taking two diabetes pills. Patients were randomized to switch to inhaled insulin, add inhaled insulin to their regimen of two diabetes pills, or remain on two diabetes pills.

The product of a joint development program between Sanofi-Aventis and Pfizer, Exubera® is an inhaled rapid-acting insulin preparation that is inhaled through the mouth into the lungs prior to eating, using a proprietary inhalation device and powdered insulin formulation developed by Nektar Therapeutics. Exubera® closely mimics the normal physiological insulin response to meals by quickly being absorbed into the bloodstream to reduce meal-related spikes in glucose levels in people with diabetes. Exubera® has been submitted for approval in Europe and the United States for the treatment of both type 1 and type 2 diabetes in adults.

About Sanofi-Aventis

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

AOPA Continues Anti-ADIZ Efforts

The Aircraft Owners and Pilots Association (AOPA) has continued to devote much toward preventing a permanent Air Defense Identification Zone (ADIZ) around Washington, DC, with the concern that such a permanent zone would hurt aviation businesses. The association recently sent out what is only the third national alert they have issued in a decade, highlighting the importance of this issue. Over 12,300 people responded, commenting on the Federal Aviation Administration's (FAA's) proposal to make the ADIZ permanent.

AOPA has also commissioned an economic impact study, hiring two nationally known, independent research firms. While federal regulations require agencies to document the economic impact of proposed regulations, the FAA admitted that it had no data on the effect of the ADIZ on area businesses and pilots. So AOPA went to work gathering data.

In addition, the association has brought in a former Department of Transportation counsel to help draft its official comments against the proposal. AOPA's staff in Washington, DC, continues to lobby lawmakers in Congress, as well.

About AOPA

With a membership base of more than 400,000, 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.

MK Airlines Chooses Aeromedic Kits

MK Airlines has become the latest customer for Aeromedic First Aid Kits and the first all-cargo airline to become part of the family of Aeromedic customers. Aeromedic believes that the first-aid kits are well-suited to the new customer's requirements. MK operates non-scheduled and scheduled services throughout the world linking Ghana, their licensed and air operator certified base of operations, with Africa and the rest of the world.

About Aeromedic

Aeromedic's core business began in the customized manufacture of on-board first aid medical kits and expanded into developing the O_2 range of supplementary oxygen equipment. Aeromedic has a worldwide proven reputation with expertise and experience obtained from 15 years of operation with many high profile clients, and offers customers worldwide a total service package.

News of Members

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Michael A. Berry, Past President of the Association, received the Kent Gillingham Award for Outstanding Academic Instructor in the Residency in Aerospace Medicine from the USAF School of Aerospace Medicine in San Antonio, TX in June 2005. In addition, Dr. Berry was elected as Second Vice President of the International Academy of Aviation and Space Medicine on August 30, 2005, at the 53rd International Congress in Warsaw, Poland.

Timothy B. Curry, M.D., Ph.D., graduated from his residency in anesthesiology at the Mayo Clinic, Rochester, MN, and went on staff at the Mayo Clinic in July 2005.

T. Arthur Hawley, M.D., M.P.H. & T.M., FACPM, FACOEM, retired from the U.S. Navy back in October 1999. For the past 6 years, he had worked as a staff physician at the Occupational Medicine Clinics at East Jefferson General Hospital in Kenner, LA. He became the Medical Director for Industrial Health and Wellness at Biloxi Regional Medical Center in Biloxi, MS, in May 2005. He is also a Senior AME with the Southwest Region. He was made a Fellow of the American College of Occupational and Environmental Medicine in February 2005.

Marlon K. Nailling, formerly on the faculty of Old Dominion University in Norfolk, VA, has transferred to the faculty of Shawnee Community College in Ullin, IL.

Russell B. Rayman, M.D., was the recipient of the W. Randolph Lovelace II Award bestowed on May 11, 2005, in Kansas City, MO, by the Society of NASA Flight Surgeons

Warren S. Silberman, D.O., M.P.H., was selected as RAM Field Instructor of the Year by his first class of residents—the USAF RAM class of 2006—at the FAA's Civil Aerospace Medical Institute (CAMI) . The RAMs' training experience involved the rotation of one or two residents at a time under the direction of Dr. Silberman, who is the head of CAMI's medical certification programs. The quality of those experiences led to Dr. Silberman's selection by the RAM class.

Focus on Members:

James J. Kennedy, MD, FACS, has served as CEO of Maricopa Integrated Health System, a $500 M annual revenue major academic enterprise in Phoenix, AZ, since February 2005. He is credited with leading the health care system through the transition from its former status as the county system to its current position as a Special Health Care District. During his tenure, the System underwent a major financial turnaround, going from $14 M in debt to "in the black" with several million in reserves. This was accomplished without a reduction in force or significant cutbacks in patient services.

Kennedy, a retired USAF Brigadier General, joined the System as vice president of medical affairs and chief medical officer in 2003 and is an accomplished businessman as well as physician. His "hands on" management style and insistence on process improvement initiatives have earned the respect of the Arizona academic and hospital community as well as the medical staff of the System.

Kennedy is an appointed member of Arizona Governor Napolitano's Commission on Medical Education and Research and serves as an advisor to the University of Arizona for developing the new medical school in Phoenix. Prior to joining Maricopa he spent 23 years in private practice. He was a senior executive in another Phoenix health system where he helped improve efficiencies in medical operations and business results. He previously developed and managed a successful accredited outpatient surgical facility.

A graduate of Southwestern University in Texas and Baylor College of Medicine, he completed his ophthalmology residency at Wilford Hall USAF Medical Center. His credentials include Board Certification in Ophthalmology, Fellowship in the American College of Surgeons, Chief Flight Surgeon, USAF, and Instructor in Advanced Trauma Life Support. He served extensively in various medical management and leadership roles in the active U.S. Air Force and the Reserve.

In Memoriam:

M. E. Hazel has died

M. E. (Maude) Hazel, who headed AsMA's membership department in the 1970s, died in September at the age of 89. M.E. brought order to the chaos of our membership department when she arrived at our offices at National Airport back in 1971. She got our old label maker humming every month, printing the labels for the journal, based on membership punch cards, coded for month and year of renewal. It was quite a site to see her setting up the machine, which took up the entire room! She remained as head of our membership department until 1980, when she retired. And even though she hadn't been to visit us here at AsMA in many years, we will still miss her. She stayed in the DC area for several years but eventually moved to Richmond to be near her daughter. A native of Marked Tree, Arkansas, M. E. was the last survivor of 12 children. She herself had three children and seven grandchildren. She was very active in her church and community.

New Members

Bevan, Matthew G., Ph.D., Laurel, MD
Chelvanathan, Athithan, MBBS, Boroko, Papua New Guinea
Coenen, Francois H., M.D., Beaufays, Liege, Belgium
Dimitrakopoulos, Ioannis, M.D., Peristeri-Athens, Attica, Greece
Grace, John, Leesburg, VA
Hubbard, Todd P., Lt.Col., USAF, Norman, OK
McNeill, Margaret M., Lt.Col., USAF, NC, Frederick, MD
Miller, David A., M.D., FAAFP, St. Louis, MO
Mlo, Cella, Greensboro, NC
Ricca, Dallie F., Jonesboro, AR
Ricca, Gregory F., M.D., Jonesboro, AR
Ruskin, Keith, M.D., Westport, CT
Taylor, Marcus K., LT, MSC, USN, San Diego, CA

AsMA offers automatic debit for payment of dues

Instructions for "Yearly Bank Debit" by Check

1. To establish an automatic debit, Member must contact the AsMA Home Office at 703-739-2240 Ext. 106 or Ext. 107, to obtain our Bank information (Bank name, Account number, Routing number.)
2. Member must initiate the automatic debit of their annual membership with their own Bank and must inform their Bank of the exact payment amount. The debit should occur prior to the membership expiration date.
3. The Association's Bank will issue a credit memo when payment is submitted.
4. As dues increase, it will be the member's responsibility to contact their own Bank to include the increase in the annual membership fee.

Instructions for "Yearly Credit Card Payment"

Member must contact the Home Office by email, fax, or mail with their credit card number and expiration date, and amount to charge, signature and authorization to make the yearly charge.

As the annual dues increase, the member will need to send authorization to charge the new dues rate to their card.

NOTE: It will be totally up to each member to initiate the above procedures by contacting the Home Office.

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