

President's Page

I have just returned from our annual fall Council meeting and I would like to report on some of the proceedings.

First of all, I was very impressed by the attendance. Not only were most Council members present, but many other members attended as well. This seems to be a good indication of interest in the association's business and that can only be healthy.

Furthermore, as most of you know, Council is followed by one and half days for the Scientific Program Committee meeting in preparation for next scientific meeting. Again, I was very impressed and very pleased by the attendance, probably the largest in a long time. Not only did we have a large attendance, but we also had a well balanced group. Indeed most sections of the association and all age groups were well represented, which means we had the benefits of wisdom, corporate memory, knowledge, dedication, energy, and open-mindedness. It also means that we seem to be doing something right about succession planning.

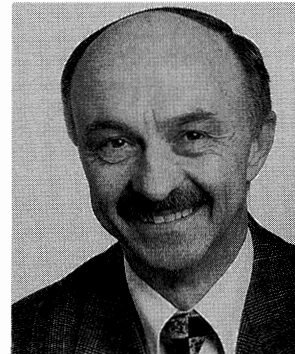
This event also made me very proud of our association and reminded me how privileged I am to be leading it. How many voluntary associations can claim to be able to bring more than 80 people from all over North America and Europe to attend a scientific committee meeting and give their free time for the benefit of their colleagues? Also, keep in mind that a lot of these members are not supported financially to do so. On behalf of the association and its membership, I wish to say "thank you very much" to all those dedicated workers. This is also a good opportunity for me to thank Andy Bellenkes and his team for the magnificent job they are doing. San Antonio will be another memorable meeting.

What happened at Council? Quite a lot of "business as usual," but my intention here is to cover only a few salient points.

Our president-elect is working on an ethics statement for the association. Since most of us belong to other associations that have well-developed ethics statements covering most of the issues, ours will be reasonably short and will cover only the missing elements related to our field.

To continue on with the adaptation of the association's structure, a proposal was made to change the Bylaws so that the immediate past president becomes the chair of the Nominating Committee. This change would insure better continuity and would lessen the burden on the other past presidents. Council accepted the proposal which will be voted on next May.

While the finances of the association are very healthy, it was recommended by the Finance Committee and accepted by the Executive Committee that an audit of the financial and administrative processes of the association be performed. This audit will confirm what we are doing well and make recommendations on what the auditors believe needs improvement. Among other things, it will give us



Claude Thibeault, M.D.

an expert opinion regarding our mortgage.

I know many of you are waiting for the position paper on age 60. It was planned for this Council meeting; unfortunately, developments beyond our control delayed the process. It will certainly be ready for the May meeting.

The chair of the Education and Training Committee and his team, in cooperation with the Journal editor will develop the process that will eventually give us the opportunity to provide continuing medical education credits through our Journal. This service, which represents one of our objectives, should be advantageous to many of our members and may possibly attract new members.

The chair of the Corporate and Sustaining Membership Committee reported on the preparation of the research workshop on astronaut safety and health; the meeting sponsored by AsMA will be mainly on the cardiovascular aspects of space medicine and will be held at the Rockefeller Center in Bellagio, Italy. By the way, I attended the C & S meeting on Thursday morning and let me assure you that this is another AsMA section that we can be particularly proud of.

The medical guidelines for air travel (for physicians) should be published early in the New Year and will also be on our Web site.

The position paper on psychiatric medication and flight crew is also well on its way and will be ready for our May meeting.

Last but not least, the web site. It is well recognized by the Executive Committee and Council that the AsMA web site is very important for the association. In fact, it is one of our major objectives to develop and maintain an excellent and fully functional web site. Since the infrastructure of the current site has significant limitations, it was collectively agreed that it will be necessary to allocate some funds for the renewal of the site and addition of as much functionality as necessary to conduct our business and provide services to our members.

This summary only gives you a glimpse of the work being done, but should certainly reassure you that our association is well and thriving.

Medical News

This Month in Aerospace Medicine History-- January 2003

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

Introduction

As I take up my pen to write this, the first installment of a series on the history of Aerospace Medicine, I realize that I am not taking up a pen at all. I am typing on a laptop computer at 30,000 ft en route from an enjoyable and educational annual Scientific Meeting in Montreal.

To prove once again that in history there is nothing new, I should point out past columns in this journal. From March 1980 to January 1985 by Dr. Benford, then from June 1986 to April 1990 by Dr. Dille, countless interesting articles on the history of aviation and aerospace medicine were published. The history of our specialty offers a fascinating study in the triumphs of man over his own physiological barriers.

Most of the excerpts in this column will be from this journal, which has transmogrified from *The Journal of Aviation Medicine*, begun bi-monthly in 1930, to *Aerospace Medicine* in 1959, and to the present title in 1975. Excerpts may be used from other journals if the subject is of particular interest; information from prior to 1930 will be found in other sources.

One Hundred Years Ago

One of the most significant events in January 1903 was not directly related to aviation until 39 years later. On January 20, U.S. President Theodore Roosevelt issued an Executive Order placing the territory of Midway Islands under jurisdiction of the Navy Department (8).

Seventy-five Years Ago

Although lacking in significant aviation milestones itself, January 1928 came after a year of firsts. Charles Lindbergh made the first solo transatlantic flight from New York to Paris in May of 1927 (12). In December of that year Boeing Air Transport, the predecessor to United Airlines, began transcontinental passenger and airmail service between Oakland and New York (9). General aviation buffs will be interested to know that the Cessna Aircraft Company was also founded in 1927.

To give an idea of the capabilities of aircraft around that time, the Fairchild Aviation "FC-2... was powered by a 220 hp Wright J-5 Whirlwind... It was the first commercial airplane to be fitted with oleo shock-absorbing struts and Bendix hydraulic brakes. The wing had conventional ailerons and independent flaps. The windscreen was made of panels of shatter-proof glass. Range, based on a 37 gallon fuel tank, was 600 miles. The ceiling was nearly 15,000 ft, cruising speed was a little over 100 mph and the landing speed was 53 mph. The machine was designed to carry four passengers in addition to the pilot" (7).

Fifty Years Ago

Landings aboard the first angled deck aircraft carrier, *USS Antietam*, were first tested on January 12 (8). This was a significant step in improving safety in Naval Aviation. Whether causal or coincidental, mishap rates dropped significantly in the U.S. Navy following this innovation (11).

Throughout history flight surgeons have contributed not only to the health and safety of pilots and aircrew, but also to those in related jobs such as air traffic control. The U.S. Armed Forces Medical Journal reported "that a disproportionate number of radar operators complained of tiring and headache during or following their work. Only a small percentage had any refractive error or ocular muscle imbalance." The authors recommended that "[no] man should have to actually watch the radar gear for more than one-half hour at one sitting; and a shorter time than this is preferred. More frequent change-offs, with ocular rest, are recommended... Posture is an important factor in tiring. Speed in pickup of aircraft contacts on the screen needs further study" (10).

Failure to eject prompted a U.S. Navy study regarding the Martin-Baker ejection seat: "[The] question has been raised as to whether or not the failure to...eject was a result of physical failure to reach the face curtain handles...Thirty naval fighter pilots, of various anthropometrical measurements...were subjected to levels of positive radial acceleration about 2.0 g above their relaxed blackout tolerance level...The results suggest that, unless extremely fatigued, most suit-protected pilots should be able to perform the arm movements necessary...if the g were a constant one. There were no means available by which their ability could be tested under conditions of fluctuating g-levels...A marked degree of success would appear to depend on the pilot's pre-knowledge of the effects of such forces...and proper instruction as to procedure and techniques... This portion of success could be made available through lecture training and centrifuge indoctrination" (2).

The importance of safety and mishap survival was not overlooked in general aviation. Aviation Week reported that the "Beech Aircraft's Model 50 Twin-Bonanza is the first U. S. plane of its size deliberately engineered from the drawing board to incorporate newest approved postwar safety practices for crash survival." The Twin-Bonanza featured "three principal safety factors," including:

1. Design to an 8 G flight load safety factor
2. A forward compartment ahead of the cabin [to absorb] energy in a crash, and a heavy keel structure under the cabin [to safeguard occupants]
3. Passengers sit on top of the main weight factors in the airplane

Furthermore: "The collapsible nose section will act as a shock absorber... Air locked into the tightly sealed baggage compartment is expected to have a powerful cushioning effect... Fuel is away from the passengers in four wing tanks... Shoulder harness is standard equip-

ment... None of the [occupants are] seated in line with the whirling propeller blades... Instrument panel (of ductile metal) has been moved forward...from the original design" (6).

Twenty-five Years Ago

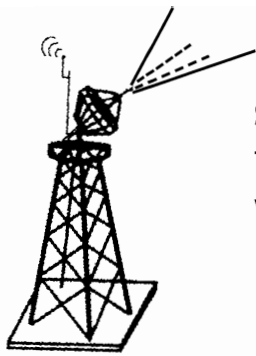
In a study by Graybiel and Knepton: "The experimenter's task was to adapt, incrementally, the subjects to otherwise intolerable rotation levels... Two subjects, after executing approximately 14,000 head movements, were dropped because only small levels of adaptation had been achieved. The remaining seven, after executing 13,200 to 26,400 head movements, were adapted to terminal velocities ranging from 4.0 to 7.0 rpm; the criterion used was the execution of 1200 head movements, both at terminal velocity and after return to zero velocity, while remaining symptom-free... When the direction of rotation was reversed and head movements were executed in four quadrants, three of the subjects failed to meet the criterion. It was concluded that the phenomenon of overadaptation had been demonstrated" (4).

Another study considered motion sickness. "Nausea and disorientation are sometimes produced by head movements during turning maneuvers in aircraft. These responses are usually attributed to Coriolis cross-coupling stimulation of the vestibular system, although it has been indicated recently that many turning maneuvers of aircraft have insufficient angular velocity to generate such effects. The purpose of the present study was to further distinguish conditions in which Coriolis cross-coupling effects are disorienting and nauseogenic from conditions in which they are neither... Both results and theory confirm that head movements made during the commencement of a turning maneuver in an aircraft are not apt to introduce disorientation or airsickness from cross-coupled Coriolis stimulation" (5).

A frequent occurrence between nations is the advancement of scientific relations preceding more amicable political relations. The Russians have contributed significant articles over the years, and January of 1978 was no exception. The Institute of Biomedical Problems in Moscow offered this: "[Biosatellite Cosmos-690 was] equipped with a gamma-irradiation unit that carried 35 rats. On the 10th flight day, the rats were exposed to radiation at doses of 220 or 800 rads. During the subsequent 10 d, radiation injury developed in a space environment. Similar ground-based experiments were carried out to simulate space flight environment effects. The results obtained were studied on a comparative basis. The conclusion is made that effects of a short-term space flight as long as 20 d, do not essentially modify the radiobiological effect" (3).

A study from Ohio State University concluded that "[the] prevalence of hypertension in the general population was 30 times greater than for pilots. Though the overall prevalence in pilots was small, we still consider hyperten-

See *HISTORY*, p.96



Science & Technology Watch

Keeping you Informed of the Latest Advances in Science and Technology

Determining human tolerance to forces associated with ejection from high performance aircraft is complicated by the many phases pilots are subjected to from catapult through landing. In this month's column, progress on the development of a new simulator for parachute opening shock is described.

Parachute Opening Shock Simulator to Determine Cervical Injury Tolerance

Glenn Paskoff

Crew Systems Dept., Naval Air Systems Command, Patuxent River, MD

Ejection at high airspeeds is a highly chaotic event that can be characterized by several main phases: 1) initiation/catapult, 2) rocket motor, 3) drogue stabilization, 4) parachute opening, and 5) parachute landing. Each of these phases has inherent dangers and is capable of resulting in injury to the aviator. Typically, programs rely heavily upon component and system level testing to identify and mitigate the performance and safety risks to the aviator during high speed escape. Under most ejection conditions, the most hazardous phase to the aviator is the parachute opening shock phase. Currently, this phase may only be examined during costly system level testing. Consequently, only a few sparse data points are obtained.

Parachute opening shock results in an abrupt deceleration of the body that occurs when the aviator's personal parachute achieves full inflation. Peak acceleration during this phase is a function of aircrew mass properties, barometric and dynamic pressures, and recovery parachute type, drag area, and opening aids. Opening aids such as spreader guns and pull-down vent lines decrease the time it takes the parachute to open, and thus increase the resultant acceleration on the aircrew. Lighter weight aircrew typically experience higher parachute snatch forces and opening shocks due to their lesser mass. Depending upon the initial position of the body, the deceleration and angular acceleration may be aggravated as the body is twisted and snatched into alignment with the parachute's opening vector.

With the expansion of the Naval aviator population to include smaller males and females, an increased level of risk has been introduced into high speed escape systems. A recent study indicated the cervical injury tolerance of females to be 13% lower than same-sized males. In addition to occupant size and gender issues, the helmet is frequently being

used as a platform for night vision and targeting acquisition devices. The effect of these systems is to increase head-borne weight and shift the center of gravity of the head/helmet forward (a weaker condition for the neck physiologically). In order to quantitatively determine the overall effects on system performance and occupant safety, costly system level testing would need to be performed along the entire airspeed escape envelope. However, due to the chaotic nature of high-speed ejections, even under the most controlled initial conditions, manikins have recorded large variations in measured accelerations and head and neck loads. A system capable of reproducing the parachute opening shock phase in which the variables can be consistently controlled, regardless of other conditions, would allow a parametric comparison of occupant sizes, advanced helmets, and other man-mounted equipment. This system would provide invaluable data to new and existing programs in determining the total system level performance and safety early enough in the program to easily allow for design modifications.

The first part of the effort uses the MADYMO (Mathematical Dynamic Models, TNO) finite element program to model the internal dynamics of the NAVAIR Horizontal Accelerator (HA), specifically the pneumatic, hydraulic, and mechanical response of the system. The HA is a HYGE, Inc. pneumatically driven, hydraulically controlled linear actuator with a ten foot stroke. The HA can simulate vehicle/occupant forces, displacements and accelerations representative of high-speed crashes and ejections. It produces time-mirrored acceleration pulses that are programmable and highly repeatable. The pulses are controlled through the use of an internal metering pin within the load chamber of the piston. The ram and piston of the HA are modeled to provide an efficient method of designing, fabricating, and testing new metering pin designs to achieve desired pulses without extensive trial and error.

With the completed HA model, a low-cost mockup of the fixture will be built to test the concept. Existing parachute opening shock data from previous ejection testing will be compiled, analyzed and characterized according to manikin size, airspeed, helmet mass properties, clothing ensemble, and altitude. From this data, acceleration profiles consistent with specific airspeeds will be determined and input into the HA model. Next, the results of the model will provide the required metering pin designs necessary to achieve the desired accelerations.

When the prototype and metering pins are complete, several baseline tests will be conducted to test the concept fidelity. Manikin instrumentation will include head and chest accelerometers, upper and lower neck 6-axis load cells, chest angular rate sensors and a sled accelerometer. After the tests, the data will be analyzed and compared with the corresponding system level ejection tests for accuracy. Depending upon results of preliminary testing, changes will be made to develop the test fixture final design. At this point, once drawings are complete, the final test fixture will be fabricated.

Once integrated with the existing HA test facility, several series of tests will be conducted. Test conditions will examine the effects of such variables as initial seat pitch and yaw, occupant initial position, ejection airspeed (correlated by varying degrees of accel-

eration profiles from experimental data), helmet weight and mass properties, and aviator size. Analysis of the data will include head and neck loads and moments, head and chest linear and angular accelerations, and current head/neck injury criteria methods to determine the likelihood of injury.

Parachute opening shock typically represents the most severe loading to the aviator upon high-speed ejection. Currently, there is no capability to simulate this event for evaluating risks to aircrew, short of full scale system level testing, particularly a low cost alternative to system level testing. The development of this device will provide invaluable data in describing the effects on the body, particularly the head and neck, of parachute opening shock. It will, for the first time, enable factors such as aviator size, ejection airspeed and initial position to be fully controlled and analyzed. In turn, this allows for a comprehensive evaluation of personal protective gear and advanced helmet devices.

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

Please send your submissions via e-mail to: ShenderBS@navair.navy.mil

This publication is available in microform from ProQuest

ProQuest, 300 N. Zeeb Rd, PO Box 1346, Ann Arbor, MI 48106-1346; www.proquest.com; 1 800-521-060.

SPACE MEDICINE BRANCH YOUNG INVESTIGATOR AWARD

The Space Medicine Branch's Young Investigator Award is presented to a young investigator who is the primary author of an outstanding presentation in the area of Aerospace Medicine presented at the current Annual Scientific Meeting of the Aerospace Medical Association. In addition to being the primary author, the work must be original and the young investigator must be presenting at the Annual Scientific Meeting for the first time. The Award is intended to encourage young investigators new to the field of Aerospace Medicine.

The applicant must submit a draft manuscript if their presentation to the chair of the Young Investigator Award sub-Committee. To be considered for the 2003 award, manuscripts must be submitted by the end of March, 2003 to:

K. Jeffrey Myers, M.D.
Space Medicine Branch
Young Investigator Award Chair
P.O. Box 540305
Merritt Island, Florida 32954
Phone: (321) 867-2026
jeffrey.myers-1@kmail.ksc.nasa.gov

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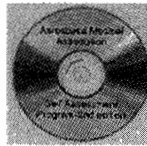
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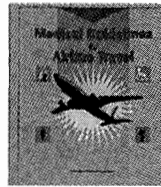


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AsMA Ties...are navy blue polysilk with "Aerospace Medical Association" printed as a diagonal gold stripe.

HISTORY, from p. 94.

sion to be a significant illness in this group" (1).

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Sunday Workshops to be Held in San Antonio--Sign up NOW!

1. A Human Factors Approach to Accident Analysis and Prevention

Scott Shappell, Ph.D., and Douglas Wiegman, Ph.D.

Civil Aerospace Medical Institute, Oklahoma City, OK, and University of Illinois at Urbana-Champaign

Human error is implicated in nearly all aviation accidents. This workshop will provide tools and information needed to conduct human error analysis of aviation accidents. Six hours of didactic lecture and classroom exercises. The morning session is devoted to introduction of the problem, and then presentation of the Human Factors Analysis and Classification System (HFACS), concluding with an hour of summaries as teaching tools to be classified. The afternoon will be devoted to "hands-on" analyses of NTSB accidents using HFACS.

2. Aircrew Fatigue: Causes, Consequences, and Countermeasures

John A. Caldwell, Ph.D., and J. Lynn Caldwell, Ph.D.

U.S. Air Force Research Laboratory, Brooks AFB, TX

The workshop will outline the importance of addressing fatigue as a danger in aviation, the basic physiological mechanism underlying fatigue, and the most common causes of fatigue in air transport and other settings. Ways to recognize fatigue in operational environments and information about the efficacy of various countermeasures, including specific information about countermeasure techniques such as proper work/rest schedules, adequate sleep, napping strategies, rest breaks, circadian entrainment, stimulants and others will be provided.

3. Medical Aspects of Aircraft Accident Investigation

Alex Wolbrink, M.D.

Civil Aerospace Medical Institute, Oklahoma City, OK

The objectives of this workshop are to relay a basic understanding of medical aspects involved in conducting an aircraft accident investigation, including the role and significant components of autopsy and pathological examination, specimen handling and toxicological analysis. Investigating pilot medical incapacitation as a contributing factor will be discussed. The differences between civilian and military accident investigations and responsibilities in various countries will be discussed.

In addition, the packed program left no space for the Panel on Journal Publishing. But fear not! We are going to hold it Sunday afternoon, instead. Details to follow. Look for the brochure in the mail in mid-January.

Send information for publication on this page to: **CDR Russ Lawry**
Safety Division (SDM-3), HQMC
2 Navy Annex
Washington, DC 20380-1775
lawryrs@hqmc.usmc.mil

AEROSPACE PHYSIOLOGY REPORT

Aerospace Physiology Operational Excellence, Training, Research and Leadership-- Award Nominations Due April 1, 2003

Aerospace Medical Association members, supervisors, and senior officers, please take time from your busy schedules to recognize those valuable individuals who are performing extraordinary work within the Aerospace Physiology Community. The time has come to start planning for the Aerospace Physiology Society (AsPS) Awards to be presented at the Association's 74th Scientific Meeting in San Antonio, TX.

The AsPS presents three awards at the Society Luncheon held during the Scientific Meeting. These awards are presented for outstanding achievement in all areas of aerospace physiology--operational support, training, research, and leadership. The recipient of each award will receive a certificate, wall plaque, and honorarium.

The following are brief descriptions of the awards to be presented.

The Paul Bert Award recognizes outstanding research contributions in aerospace physiology. This award was established in 1969 and named in honor of the famous French Physiologist, Paul Bert, "Father of Pressure Physiology." The research contributions may vary from basic science to research in highly applied areas of aerospace physiology. The Scott Aviation Division of Figgie International Inc., Lancaster, PA, sponsors the award. The award recipients the last 5 years are: Donald A Diesel, Tamara L. Chelette, David Cohen, Robert O'Connor, and Timothy Byrne.

The Wiley Post Award recognizes outstanding contributions in the areas of direct operational physiology and aeromedical training and education. The Paul Bert Award for Operational Physiology was originally established in 1969. It was replaced in 1972 by the Wiley Post Award for Operational Physiology, named in honor of the pioneer aircrewman Wiley Post, representing all crewmembers who have benefited from the efforts of operational aerospace physiologists. The Gentex Corporation, Carbondale, PA, sponsors the award. The award recipients the last 5 years are: Anthony P. Catanese, Donald J. White, William Schutt, Eric Sherman, and Simon Bartlett.

The Fred A. Hitchcock Award recognizes excellence in either operational aerospace physiology or aerospace physiology research. The award was established in 1972 and is named in honor of Fred A. Hitchcock, Ph.D., co-translator of Paul Bert's classic work, "Barometric Pressure." The Jefferson C. Davis Wound Care and Hyperbaric Medicine Center, San Antonio, TX, sponsors the award. The award recipients the last 5 years are: Ryan Eichner, John Frazier, Vince Musashe, Jim Norton, and Robert Matthews.

The standard format for the award submission is the same as the Aerospace Medical Association Awards. This package should include a citation to be read at the time of presentation in 80 words or less and a list of sig-

AsPS WEBSITE

Visit us online at our website, www.aspsociety.org, where you can register for membership, update membership information, contact society officers and committee chairs, learn about certification in Aerospace Physiology, vote for society officers, read about society awards and more.

nificant accomplishments in bullet format to be less than 300 words. Please include the time interval over which the nominee's contributions were made. A current one-page biography, CV or resume should also be included.

In recent years the number of award nominations has declined, however, the number of quality professionals within the aerospace physiology community remains high. Please take time to recognize the outstanding contributions by the professional with which you come in contact.

Award nominations are due no later than 1 April 2003. Nomination package and Bio/CV must be in Microsoft Word and submitted on disk or by e-mail.

Please send nominations to:

LCDR Lynn Wheeler
6360 Fairway View Cove
Bartlett, TN 38135
E-mail : p4415j1@persnet.navy.mil

Aerospace Physiology Certification

The Aerospace Physiology Certification Board of the Aerospace Medical Association will administer the certification examination at the 74th Annual Scientific Meeting in San Antonio, TX on Sunday, May 4, 2003.

Individuals interested in certification should refer to the December 2002 issue (p. 1246) for more information.

Application must be made prior to March 1, 2003, to assure consideration for the 2003 examination. Applications received after that date cannot be guaranteed consideration for the 2003 exam. Any late applications not considered for 2003, will automatically be held in abeyance for consideration for the 2003 exam.

To obtain an application form and complete information about certification requirements, submit a short biography describing your relevant background in aerospace physiology, and request for information to the Chair of the Admissions Committee:

Mr. Brian D. Swan
6464 Lake Charlene Ct.
Pensacola, FL 32508
bswan@nomi.med.navy.mil

MEETINGS CALENDAR

January 27 - 30, 2003, San Juan, Puerto Rico. International Conference on Closed Head Trauma: Traumatic Brain Injury (TBI) Mechanisms and Design Criteria for Effective Protection Strategies. Sponsored by USAMRMC and USDOT in cooperation with USCPSC. Info: <http://headinjury.antonion.com>.

February 19-23, 2003, San Diego, CA. The American College of Preventive Medicine presents, Preventive Medicine 2003. Info: www.PreventiveMedicine2003.org; or Maureen Crane (202) 466-2044, ext. 103.

March 20-22, 2003, Galveston, TX. "Pushing the Envelope V--Medicine in Extreme Environments," sponsored by University of Texas Medical Branch, Department of Preventive Medicine Residency. Infor: www.utmb.edu/pte

March 30 - April 3, 2003, Tel Aviv, Israel. Global Asthma Conference--Interasma 2003. Contact: Israel Glazer, M.D., P.O.Box 60008, Tel Aviv 61500, Israel; asthma@kenes.com; www.kenes.com/interasma.

April 11 - 13, 2003, Telford, UK.

Association of Authorised Medical Examiners Annual Scientific Meeting. International Centre, Telford, West Midlands, UK. Info: enquiries@aame.co.uk

May 4-8, 2003, San Antonio, TX. 74th AsMA Annual Scientific Meeting, Convention Center. Info: 320 S. Henry St., Alexandria, VA 22314; phone: (703)739-2240; www.asma.org.

May 7-11, 2003, New York, NY. International Society of Travel Medicine Conference. Info: Lisa Astorga, lastorga@talley.com; web site: www.istm.org.

September 17-19, 2003, Catania, Italy. 2nd International Conference--The Impact of Environmental Factors on Health: Environmental Health Risk 2003. Organized by Wessex Institute of Technology, and University of Catania, Italy. Info: www.wessex.ac.uk

October 5-9, 2003, Madrid, Spain. 51st International Congress of Aviation and Space Medicine. Organized by The Spanish Society of Aerospace Medicine under the auspices of the International Academy of Aviation and Space Medicine. Secretary of the Congress: Sandra Ruis, C/ Hermosilla no. 30, 6a Planta, 28001 Madrid, Spain; www.icasm2003.org.

Message from Marilyn: Summary of the Fall Teleconference

I'd like to thank all of you who were able to participate in the Fall Teleconference November 2. Everyone has been working very hard to make the meeting in San Antonio successful.

For those of you unable to attend the teleconference, here is a brief summary. Mitzi Hansrote reviewed the minutes of the turnover board meeting. Trish Trifillo filled us in on the budget, which is in good shape. Susie Bellenkes had some questions on Registration procedure, which I believe have been cleared up. Arrangements are well under way. Decision as to the location of the reception has not been finalized. Yona McNish has selected a beautiful room in the Palacio del Rio for the luncheon. One of the tours will be a riverboat ride to the exclusive Club Giraud, followed by a tour of the craft center and hands on participation in one of the crafts. Another tour will be to the historic missions of San Antonio followed by lunch. Hospitality and Registration will be combined in the same room, room 102 B of the San Antonio Convention Center. It is a very nice room not far from the meetings but not in the main registration area. Elizabeth Breuder will be looking for volunteers for Hospitality and Florence Coriat and Harriet Hodgson for help with on site Registration. Dale Orford reminds everyone to bring at least one favor to be distributed at the reception. Any news items go to Elina Takahashi and Mitzi Hansrote. Florence suggested that everyone bring a postcard from their local area to create a collage for the Hospitality room.

It was amazing we could connect Paris to Seoul to Texas to California. It was wonderful to hear everyone's voice.

Love to all,
Marilyn

San Antonio Highlights

The Alamo in San Antonio is Texas' most renowned structure and a shrine to Texas liberty. It was the famous siege of 1836 that ignited the rallying cry, "Remember the Alamo."

The cornerstone of the Alamo was laid on May 8, 1744. Founded as a mission, it later became a fortress. It was eventually abandoned until 1803 when a company of Spanish soldiers from Mexico occupied the mission until 1835, when it was surrendered to Texan forces. The siege of the Alamo lasted 13 days and climaxed on March 6 with a complete loss of all the Texans in the overwhelming assault. With the bloody defeat, the Texans gained the sympathy of the world.

The actual grounds of the Alamo have not changed drastically since the early part of this century, but the city has been transformed. San Antonio has a rich, diverse history, and has grown to become one of the ten largest

cities in the United States. This urban growth over the past century is reflected in the development surrounding Alamo Plaza. The buildings which border the plaza present a historical record of the many architectural styles during the past 100 years. The blending of architecture in Texas is well represented in the architecture of Alamo Plaza and the Paseo del Rio or River Walk. More about San Antonio next time.

Honorary Member

It's that time of year for submitting candidates for the Honorary Member of the Wing of the AsMA. Due to special circumstances the December 1st deadline has been extended to February 15, 2003. The guidelines for nominating candidates are as follows:

-Candidates must be submitted with accompanying biographies to the Honorary Member Committee Chair by February 15, 2003. Nominations can be mailed, faxed, or e-mailed to the addresses stated below.

-Biographies should contain information that clearly indicates the nominee is a woman who is distinguished in the field of aviation medicine, aeronautics, or related activities which could include areas of education and operation..

-Biographies should include the nominee's name, current address, professional membership organizations and affiliations, and any other information which might assist the committee in its consideration.

-Any Wing member may submit a nomination. All nominations will be considered for a period of 2 years.

Please send nominations and biographies to the Chair.

Joan Marinelli
3512 Alma Ave.
Manhattan Beach, CA 90266
FAX 310-680-8585
E-Mail lmjtm@earthlink.net

Member News

Susi Bellenkes went to Austria for 4 months to transform their home there. She maneuvered a new roof, power, central heat, plumbing and two bathrooms. Andy [her husband] sang in the Bach Festival in July/August to keep busy during Susi's absence. Susi is currently painting pet portraits. She reports that the business is really picking up and that she loves it. Her portraits exhibit soft, intriguing color backgrounds and leave a trace of mystery as the viewer wonders what has preceded or what follows the scene she captures. She would probably share samples with you in jpeg format if you request ..susiandy@pacbell.net.

Lady Mary and Sir John Baird always look forward to visits from friends at home and abroad. It was indeed a surprise to receive a call from **Israel and Eka Glazer** on a very brief break from Tel Aviv and staying in London. "Of course you can come to visit us

in Ely, please have lunch with us on Sunday....A very quick and easy train trip from King's Cross" said JAB. After numerous delays the so called "one hour trip" from London to Ely took over 3 hours...[It was shorter, time wise from Tel Aviv to London]. Mary blesses them for coping with England's poor travel system, and in spite of delays, had a very happy re-union.....but of course they didn't stay as long as they would have liked as,... they had to do it all again in reverse!!

Harriet Hodgson reported attending an American Medical Alliance convention in Chicago at one of the finest Chicago hotels. There she managed to get food poisoning on the potato salad. After being home one evening Harriet and John left for Duluth to attend another Alliance meeting, where they had dinner at a favorite restaurant. John got food poisoning. To avoid the Twin Cities traffic, they decided to drive home through Wisconsin, where a deer hits her new car. She was driving and when she looked at John, she saw his face inside the window and a wild-eyed deer's face outside the window. She described it as "weird". Harriet thinks "maybe they shouldn't leave home too often any more". Some trip !!!

Joan & Larry Marinelli attended the 4th Asia Pacific Congress of Aerospace Medicine at the Tsukuba Space Center in Japan. Joan will tell us all about it in San Antonio.



Join the Wing!

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



Aerospace Medical Association

Corporate and Sustaining Members

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

Aeromedic Innovations	Mayo Clinic
Air Canada	MedAire, Inc.
Air Line Pilots Association	MEDJet International, Inc.
Air Methods Corporation	Medtronic Physio-Control
AirSep Corporation	Monash University / Alfred Hospital
American Airlines, Inc.	
AMST Systemtechnik Ges m.b.H.	National Air Ambulance, Division of National
ASM--Austrian Society for Aerospace Medicine	Jets, Inc.
AstraZeneca Pharmaceuticals LP	Northrop Grumman Life Support
Autoflug Libelle GmbH	
Aventis Pharmaceuticals	OSU-College of Osteopathic Medicine
Aviation Medicine Center at UTMB	
	Pilot Medical Solutions, Inc.
Baxter Healthcare Corporation	
The Boeing Company	Scandinavian Airlines System
	Schering-Plough Corporation
David Clark Company, Inc.	Science Applications International Corporation (SAIC)
	17 Wing Medical Clinic
Education Enterprises, Inc.	Stereo Optical Company, Inc.
Environmental Tectonics Corporation	
Essilor of America/Varilux	The First Call
Gentex Corporation	United Airlines
GlaxoSmithKline	United States Aviation Underwriters
	Universities Space Research Association (USRA-DSLS)
International Federation of Air Line Pilots Associations	
	Harvey W. Watt & Company
Japan Airlines	World Aviation Systems, Inc.
	Wound Specialty Associates, P.A.
Latecoere International, Inc.	Wyle Laboratories, Inc.
Lockheed Martin Corporation	

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

Leonard Kirschner, M.D., M.P.H., Litchfield Park, AZ, was elected to a 3-year term on the Board of Directors of the Arizona Hospital and Healthcare Association.

Tony Lynch PhD, MB.Ch.B.,CCBOM, Dip Av. Med.,CIME, MROCC, has been appointed Occupational Medical Consultant at Network Health, Columbia Rehabilitation Centre, Calgary, Alberta, Canada. He also passed two new exams: the certificant exam of the Canadian Board of Occupational Medicine, with the qualification of CCBOM, and the examination in Aviation Medicine from the University of Otago, New Zealand, with the Diploma in Aviation Medicine.

Maj. David L. Cunningham, USAF, MC, formerly with the Squadron Medical Element, 33rd Rescue Squadron, Kadena AB, Japan, has been transferred to the 86th Aeromedical Squadron, Ramstein AB, Germany. He was the 2001 recipient of the Society of USAF Flight Surgeons' Malcolm Grow Award.

Obituary Listing

Derrick M. Sutorius, M.D., Amsterdam, The Netherlands, died in October at the age of 48. He received his M.D. from the University of Utrecht in 1981 and did postgraduate studies in Occupational Medicine, Surgery and Gynecology/Obstetrics, as well as attending a General Aviation Medicine Course. He had worked in the Medical Department at KLM Airlines, Schipol Airport. He had been a member of the Netherlands Society of Aviation Medicine, and The Netherlands Association for Occupational Medicine.

New Members

Aunon, Serena M., M.D., Galveston, TX
 Clydesdale, Raymond J., Capt., USAF,MC,
 Alamogordo, NM
 Files, Douglas S., Maj., USAF, MC,
 Salt Lake City, UT
 Leon, Gloria R., Ph.D., Minnetonka, MN
 Marks, Fredric A., Col., USAF,MC,
 Maxwell AFB, AL
 Molstad, Jerome M., Maj., USAF,MC,
 Atwood, KS
 Musselman, Brian T., Capt., USAF,BSC,
 Beale AFB, CA
 Nocilla, Frank J., CPT, MC, ANG, Hadley, NY
 Sariego, Joaquin, Maj., USAFR,MC,
 Ocean Springs, MS
 Sherwood, Daniel L., LCDR, MC,USN,
 Pensacola, FL

International New Members

Davies, Matthew T., Sqn.Ldr., RAF,M.D.,
 Henton Chinnor, Oxfordshire, England
 Ireland, Brian J., M.B.B.Ch., Ballinderry,
 Upper Lisburn, Co. Antrim, N. Ireland
 Jahr, Karl I., B.Sc., Brandval, Norway
 Ryan-Sheridani, Debora, B.Med.Sc., M.D.,
 Auckland, New Zealand
 Yon GuBu, ROKAF, Cheong won-gun,
 Chung Buk, Korea

New Member Dues

Regular Member	\$195
Student/Resident	\$60
International Member	
w/Rapid Delivery	\$220
Member & Spouse	\$250
3-Year Membership	\$470
Life Member	\$2925
Technician	\$85

For more information, contact the Membership Department at (703) 739-2240; Gloria Carter: ext. 106, gcarter@asma.org; or Sheryl Kildall: ext. 107, skildall@asma.org

Home Office Information

Phone: (703)739-2240
Fax: (703)739-9652 or (703)739-9875

Website: www.asma.org
 These are the phone extensions and e-mail addresses of your Home Office staff:

Russell Rayman, Exec. Dir.
 Ext. 103; rrayman@asma.org
 Jackie Carter, Admin. Assistant
 Ext. 104; jcarter@asma.org

Membership Department
 Gloria Carter, Membership Dir.
 Ext. 106; gcarter@asma.org
 Sheryl Kildall, Assist. Membership
 Ext. 107; skildall@asma.org

Journal Department
 Pamela Day, Managing Editor
 Ext. 101; pday@asma.org
 Heather Crain, Editorial Assistant
 Ext. 102; hcrain@asma.org

Membership Directory is now ONLINE!!!

Go to the website at www.asma.org and click on **MEMBERS ONLY!**
 The site is secure and requires a password. Contact Gloria Carter to receive your password or change your information in the Directory: gcarter@asma.org.

CLASSIFIED ADS

CERTIFICATE OF KNOWLEDGE IN TRAVEL MEDICINE EXAMINATION---The International Society of Travel Medicine (ISTM) will offer a Certificate of Knowledge in Travel Medicine examination in May 2003, before the opening of the 8th ISTM Conference in New York City, May 7-11. For more information: www.istm.org.

INTERNATIONAL CONFERENCE ON CLOSED HEAD TRAUMA: TRAUMATIC BRAIN INJURY (TBI) ---Mechanisms and Design Criteria for Effective Protection Strategies. January 27 - 30, 2003. San Juan Marriott Resort, San Juan, Puerto Rico. For more information and to register, please visit <http://headinjury.anteon.com>. Sponsored by USAMRMC and USDOT in cooperation with USCPSC.

MEDICAL GUIDELINES FOR AIRLINE PASSENGERS AVAILABLE FOR DOWNLOAD
www.asma.org.
 Click on "Publications", and then click the bullet "Medical Guidelines for Airline Passengers."

AsMA Future Meetings

May 4-8, 2003
 Convention Center
 San Antonio, TX

May 2-6, 2004
 Egan Convention Center
 Anchorage, AK

May 8-12
 Kansas City, MO
 Hyatt Regency Crown Center

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