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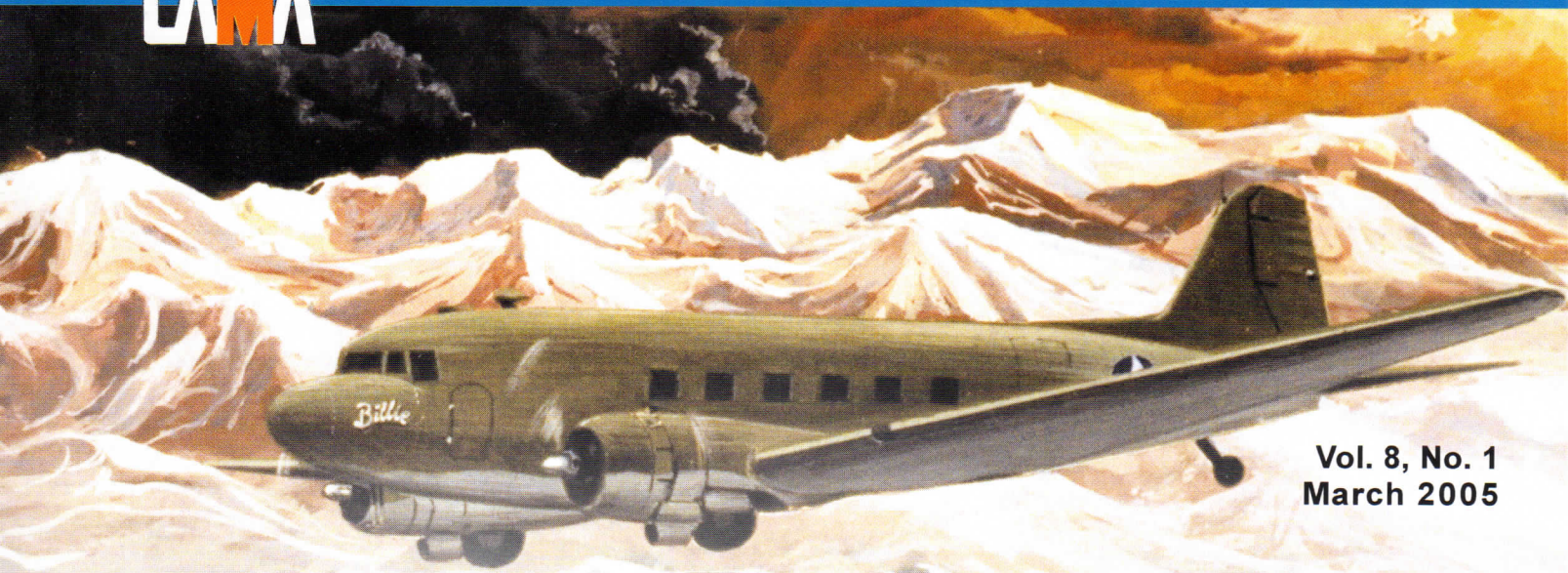
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Flight PHYSICIAN

A publication of the Civil Aviation Medical Association



Vol. 8, No. 1
March 2005

'AGE 60 RULE' DUE FOR REJUVENATION?

Congress Debating Age Limits for Pilots and Controllers

BY PETER S. NEFF, B.S., MAS

The Age 60 Rule governing airline pilot retirement became effective on March 15, 1960. The verbiage is contained in 14 CFR 121.383(c), which states:

No certificate holder may use the services of any person as a pilot on an airplane engaged in operations under this part if that person has reached his 60th birthday. No person may serve as a pilot on an airplane engaged in operations under this part if that person has reached his 60th birthday.

The regulation establishes clear dual responsibility that the certificate holder may not employ a pilot over 60 years old as a line pilot, and a pilot may not serve as a line pilot if that pilot is 60 years old or older.

After Congress created the Federal Aviation Agency, President Eisenhower appointed Elwood "Pete" Quesada to head the agency, and it is under his tenure that the Age 60 Rule became effective. The rule was controversial from its inception, and the Airline Pilots Association (ALPA) opposed the

Continued on page 13



2005 SCIENTIFIC MEETING PREPARATIONS ON TRACK

BY JIM HARRIS, M.ED.

CAMA PRESIDENT DR. JAMES ALMAND (above, left) presided at the annual board of trustees meeting in Irving, Texas, February 25-26. Twenty-eight members attended to discuss the Civil Aviation Medical Association's vision for the next five years. The Board reviewed nominations for next president-elect, to be presented to the membership for election at the 2005 scientific meeting in Charleston, S.C.

Dr. Duane Catterson was tasked to head the selection committee for nominees to the Board for the years 2008 through 2010. President-elect David Bryman, D.O., plans to convene a small group this summer to further refine CAMA's long-term vision. The group's recommendations will then be presented to the membership at the Charleston meeting.

This year marks CAMA's 50th anniversary. The program for the annual scientific meeting promises to be outstanding, so make your plans soon to attend, and be a part of CAMA's history. FP

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PRESIDENT'S COLUMN

IN FEBRUARY, your Board of Directors conducted a well-attended council meeting in Dallas/Ft Worth. Various subject matters were heavily addressed, beginning with the CAMA luncheon May 9th at Aerospace Medical Association and the Airline Medical Directors meeting on Saturday preceding AsMA on May 7, 2005, in Kansas City, MO. These two meetings are extremely valuable and both are open to all who wish to attend.

Mark your calendars now to attend a much anticipated and exciting Annual CAMA Meeting which is scheduled for Charleston, S.C. October 6-10, 2005. International aviation medical and respected cardiac leaders are on the agenda for this October meeting. This will be an impressive program. Aside from the impressive list of speakers, I encourage all attendees to participate in the exciting side trips, which include Ft. Sumter and the USS Yorktown tour (on-board dinner included) and, of course, a tour of

historic Charleston. We are very lucky that CAMA has selected this location.

My feeling for CAMA will be somewhat added here as an outlook. We are continuing to increase in membership and participation but, more importantly, younger AMEs are increasing in number. We are quite fortunate to have such an active volunteer group of speakers. These physicians are leaders in both aviation medicine and medicine as it pertains to the practicing pilot population. Many of these will be present at the Charleston annual program.

The CAMA Bulletin is well managed, popularly received, and a leader in civil aviation dialogue. But, the big and most important secret weapon that CAMA enjoys is the outstanding executive director, Mr. Jim Harris. I cannot compliment him enough for his continuing excellent management.

I look forward to seeing you all at the next CAMA meeting.

—Jim Almand, M.D.

SCHEDULED MEETINGS

May 9, 2005	CAMA/AsMA luncheon Kansas City, Mo.
October 6-10, 2005	Annual CAMA meeting Charleston, S.C.
October 4-8, 2006	Annual CAMA meeting Ottawa, Canada
October 10-13, 2007	Annual CAMA meeting San Diego, Calif.
October 2008	Annual CAMA meeting London, England



**CAMA MEMBER
INDUCTED INTO
OHIO VETS HALL
OF FAME**

WILBUR C. BLOUNT, M.D., FACS, FICS, a former member of the Ohio Air National Guard's 160th Air Refueling Group and 121st member, was inducted into the 2004 class of the Ohio Veterans Hall of Fame. The ceremony, attended by Gov. Bob Taft, took place in the Rotunda of the State Capital Building on November 3, 2004.

Dr. Blount was recognized for his distinguished military career as a medical physician during the Korean War era. Among his many achievements, these were cited:

- ★ Nationally recognized for advancements in eye surgery
- ★ Served in a variety of professional medical assignments
- ★ Volunteer ophthalmologist in the Physicians' Free Clinic
- ★ Member of The Young Astronauts Program also became the "father" of initiation a chapter at the Neighbor House in Columbus, Ohio
- ★ Member, Board of Nominations, National Aviation Hall of Fame
- ★ Benefactor of the annual Air Force JROTC Program's Soaring Eagle Award
- ★ Board Member of the Ohio Diabetes Association
- ★ Active member of the Ohio Chapter of the Tuskegee Airman Association.

The Civil Aviation Medical Association extends its appreciation to Dr. Blount not only for his distinguished military service but also for his contribution to the Civil Aviation Medical Association, as a past member of the Board of Trustees, and lecturer at many of our meetings.

FP

FLIGHTPHYSICIAN

A Publication of the
Civil Aviation Medical
Association (CAMA)

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The editors of *FlightPhysician* welcome submission of articles, letters to the editor, news bits, interesting aeromedical cases, and photos for publication. Please mail text in typewritten form or on floppy disk (Microsoft Word preferred) to:

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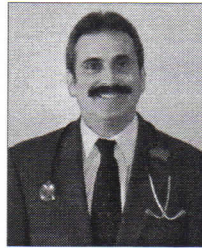
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LETTER FROM THE EDITOR



By **DAVID BRYMAN, D.O.**
SENIOR AVIATION MEDICAL EXAMINER
FAA, TRANSPORT CANADA, JAA

I have heard from more than one person that the pilot—not the Aviation Medical Examiner—is the central figure in regards to maintaining flight safety when it comes to medical certification. In other words, the AME can only verify that the pilot is fit during the hour he or she is in the office. The rest of the time, it is up to the pilot to determine if he is medically airworthy, and take the appropriate action to fly or not to fly as per FAR 61.53.

Fortunately, the system works well, and as a result, less than three percent of accidents are related to aeromedical issues. This is one of the arguments used by a large pilot organization to further their stance that there is no need for a third-class medical. They feel that the AME's role is not as significant as the pilot's role in assuring aeromedical safety. They believe that a driver's license is good enough to prove fitness for flight. (Is there a medical exam performed for a driver's license?)

However, in the last month alone, I have had several diagnoses made based on history and physical that I thought may have affected the safety of flight, if left undiagnosed and untreated. The cases involved both third- and second-class medicals.

The first case involved a 72-year-old man who wanted a student pilot third-class medical.

He did not check any "yes" answers in block 18 on the 8500-8 form. He denied any medications. Not bad for a 72-year-old, wouldn't you say? (Unless

Should the Third-Class FAA Physical Exam Be Eliminated?

he was less than honest about his medical history.) His exam, however, revealed full-field expiratory wheezes with a barrel shaped chest, and an irregular 130 BPM heart rate. His EKG confirmed atrial fibrillation with rapid ventricular response. He was, of course, deferred to the FAA—and referred back to his doctor the same day for a complete evaluation.

The second case, a 36-year-old first officer for a major airline, presented to the office for a second-class medical. He was asymptomatic, and he had a negative medical history. The exam was normal, but the UA revealed 3+ protein. Further evaluation revealed 3+ blood, as well. He was sent to a nephrologist after lab tests revealed a creatinine of 3.8 and a BUN of 60. He was diagnosed with an IGA nephropathy, and his disease was rapidly progressive. He will be starting dialysis within two months and will be added to a kidney transplant list.

The third case was a 41-year-old first officer for another major airline in Phoenix. He presented with a normal history and physical, including a normal EKG. The pilot stated that he had some mild dizziness following exercise and was sent for further work-up, including a stress EKG. He turned out to have a 99% stenosis of the right coronary artery (see case of the week).

I believe that the above cases demonstrate the importance of the flight physical, not only for the benefit of the pilot but for the benefit of the public as well.

I hope the lobbying efforts of "the large pilot association" to eliminate the third-class aviation medical exam is met with some resistance, and sound judgment and reasoning will prevail. I do not believe that a driver's license and self-certification would have helped the three patients I personally observed in my office.

FP

CAMA'S ANNUAL SCIENTIFIC MEETING TO CONVENE IN CHARLESTON, SOUTH CAROLINA, OCTOBER 5 – 9, 2005

Scientific Program Concentrates on New Developments in Cardiovascular Disease Treatment

THEME: *Aviation Medicine New Frontiers*

The Civil Aviation Medical Association annual meeting program committee, led by Earl F. Beard, M.D., FACC, FSCAI, have spent many hours developing an outstanding program for the October scientific meeting. Dr. Beard is Chairman Emeritus, Department of Cardiology, Kelsey-Seybold Clinic in Houston, Texas.

The scientific meeting program leans quite strongly in the direction of new developments in cardiovascular disease treatment with two major topics that are new and rapidly becoming crucial in aerospace medicine and airmen certification. In each case, for presenters we have pioneers and world authorities in their field.

Topics

The first topic is *Obstructive and Hypertrophic Cardiomyopathies*.

◆ Dr. William Spencer, from Baylor and the Medical University of South Carolina, was the first physician in the United States to perform alcohol septal ablation for the disease. He is a world authority who travels widely to teach other interventional cardiologists how to perform this procedure.

◆ Dr. Tony Pacifico, a consultant to the FAA Federal Air Surgeon, will join him. Dr. Pacifico is an outstanding electrophysiologist and will discuss the

aspects of arrhythmia and sudden death in this condition and how to assess the subject for this. Even after the obstructive elements are removed by septal ablation, some danger of sudden arrhythmias continues, and it is quite obvious that this is an important topic in airmen certification. Dr. Pacifico is also a pilot who flies his own twinjet.

◆ Cardiologist Dr. Andrew H. Miller, Bedford, Texas, is a pilot and Aviation Medical Examiner who will present case information.

◆ Dr. Steven P. Van Camp, the University California at Irvine's Chairman Department of Cardiology and Sport Medicine, adds his experience to this field. Dr. Van Camp is also a Past-President of the American College of Sports Medicine.

◆ Dr. Steve Carpenter, Chief of the FAA Medical Appeals Branch in Oklahoma City, will discuss the medical certification of pilots that have recovered from cardiac problems.

The second topic is *Carotid Artery Stenting, Best Option for the Pilot?* This is a procedure for carotid artery disease that may essentially replace surgery for extracranial carotid disease in all but a few cases.

◆ The principal speaker here will be Dr. Ali Mortazavi, an outstanding senior interventional cardiologist and a pioneer in carotid artery stenting. He is

Chairman of the Kelsey-Seybold Clinic's Department of Cardiology and senior interventional cardiologist at St. Luke's Episcopal Hospital/Texas Heart Institute and Clinical Associate Professor at Baylor College of Medicine. Dr. Mortazavi has been an outstanding worker in the development of abdominal and thoracic aneurysm repairs in the cardiac catheterization laboratory by a nonsurgical route, as well as an interventional cardiologist in coronary artery disease and peripheral arterial diseases.

◆ Dr. John D. Hastings, a widely known neurologist in aerospace medicine circles, will discuss the neurological aspects. He is senior neurologist consultant to the Federal Air Surgeon and has lectured at FAA medical seminars since 1981. He is also a past-president of CAMA. He is board-certified in both neurology and aerospace medicine and has a commercial pilot's rating.

Each will present lectures in their fields and serve on panels, giving participants an opportunity to ask questions.

The tentative agenda for the Civil Aviation Medical Association Scientific Meeting is presented on page 6 of this issue.

For your information, a brief *curriculum vitae* of each presenter is included next.

FP

BRIEF PROFESSIONAL QUALIFICATIONS OF THE 2005 SCIENTIFIC MEETING PRESENTERS**JOHN D. HASTINGS, M.D.**

Dr. Hastings holds board certification in neurology and aerospace medicine. He has adjunct clinical assistant professor appointments in neurology at the Oklahoma University School of Medicine and in aerospace medicine at the University of Texas Medical Branch, Galveston. He serves as a senior neurological consultant to the Federal Air Surgeon and has been a speaker in the FAA medical education programs since 1981. He is a past-president of the Civil Aviation Medical Association and currently a vice president of the Aerospace Medical Association. He has authored textbook chapters on aerospace neurology. Dr. Hastings has a commercial pilot rating.

STEVEN PHILLIP VAN CAMP, M.D.

Dr. Van Camp is the head of the Department of Cardiology and sports medicine at the University of California at Irvine. He is a Diplomate of the National Board of Medical Examiners, Diplomate of the American Board of Internal Medicine, Subspecialty of Cardiovascular Disease. He served as a member-writing group of 36th Bethesda Conference: Eligibility Recommendations for Competitive Athletes with Cardiovascular Abnormalities. Dr. Van Camp is the past-president American College of Sports Medicine. He serves as Medical Director, Rock 'N' Roll Marathon, San Diego, Calif.

PAUL N. BRYMAN, D.O., FACOI, AGSF

Dr. Bryman is a Geriatrician in Ocean County New Jersey. He is Board Certified in Internal Medicine and Geriatric Medicine and is a Fellow of the American College of Osteopathic Internists and Fellow of the American Geriatric Society. Dr. Bryman is the Medical Director for Bey Lea Nursing Home in Toms River, the Medical Director for the Haven and Manchester, an assisted-living facility. He is currently serving as Medical Director for Care Alternatives Hospice for Southern New Jersey. He sits on the Board of Directors of the New Jersey Geriatric Society and is a member of the AMA, AOA, ACOI, American Geriatrics Society, and the American Medical Directors Association. Through direct patient care, research, public outreach, physician education, and public advocacy, Dr. Bryman has committed his career to the field of geriatric medicine. He has lectured throughout the state and country on many medical and ethical topics in the field of geriatrics.

DAVID H. BEYDA, M.D.

Dr. Beyda is Medical Director of the Pediatric Critical Care Unit and Section Chief of the Division of Pediatric Critical Care at Phoenix Children's Hospital. He also serves as Chairman of the Bioethics Committee of Phoenix Children's Hospital. Dr. Beyda attended Loyola

University Stritch School of Medicine and did his pediatric critical care training at Johns Hopkins University. He was appointed as a Visiting Fellow and Scholar at the Kennedy Institute of Ethics and the Center of Clinical Bioethics at Georgetown University in Washington, DC, where he completed his training in medical ethics. His expertise is in the areas of pediatric critical care and medical ethics. His research interests involve the investigation of the cause and effect of pediatric submersion injuries, the measurement of cerebral blood flow and metabolism in brain-injured children and the ethical issues relating to end-of-life in children. Dr. Beyda is a member of numerous professional societies and organizations, including the Society of Critical Care Medicine, the American Academy of Pediatrics, and the American Association of Bioethics. In addition to being a nationally and internationally recognized author and guest lecturer, Dr. Beyda also volunteers his expertise abroad. He is currently a member of the Board of Directors of the Children's Heart Project, which provides comprehensive cardiovascular care to children in Sri Lanka. He continues to care for children in Laos, Cambodia, Vietnam, Guatemala, and Mexico and has a passion for medical mission work. He is a pilot/physician with Flying Samaritans, flying to medical clinics in Mexico. Dr. Beyda has also been the

Continued on page 8

**THE CIVIL AVIATION MEDICAL ASSOCIATION
ANNUAL SCIENTIFIC MEETING
THEME: AVIATION MEDICINE NEW FRONTIERS
TENTATIVE AGENDA**



DATE: October 5 – 9, 2005

LOCATION

Renaissance Charleston Hotel
Historic District
Charleston, S.C.
Phone (843) 534-0300

WEDNESDAY, OCTOBER 5, 2005

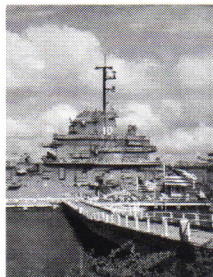
4:30 p.m. - 8:30 p.m. Registration
2:00 p.m. - 6:00 p.m. Board of Trustees Meeting

THURSDAY, OCTOBER 6

6:45 a.m. - 7:45 a.m. Breakfast Buffet
7:00 a.m. - 7:45 a.m. Registration

GENERAL SESSION

7:45 a.m. Welcome by CAMA President
James R. Almand, M.D.
7:50 a.m. Invocation
DeWayne E. Caviness, M.D.
8:00 a.m. Administrative Announcements
James L. Harris, M.Ed.
8:10 a.m. Opening Remarks
James R. Almand, M.D.
8:15 a.m. General Session
Moderator: David Bryman, D.O.
8:15 a.m. Aviation Medicine
Russell B. Rayman, M.D.
9:00 a.m. Caring vs Curing
David Beyda, M.D.
9:50 a.m. Evaluating Cardiac Problems in Healthy
Young People
Stephen P. Van Camp, M.D.
10:45 a.m. Break
11:00 a.m. Transient Neurological Symptoms and
Implications for the AME
Tim Ingall, M.D.
11:45 a.m. Lunch
12:45 p.m. Buses depart for Fort
Sumter tour, tour of
USS Yorktown, and
dinner
9:00 p.m. Buses depart for
Renaissance Hotel



FRIDAY, OCTOBER 7, 2005

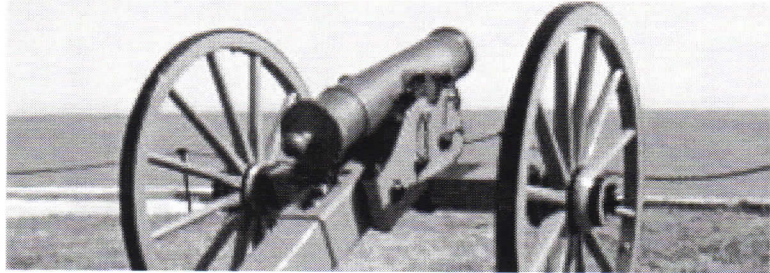
6:45 a.m. Breakfast Buffet
8:00 a.m. General Session
Moderator: Robin Dodge, M.D.
8:00 a.m. Cleveland Clinic Facial Transplant Program
James E. Zins, M.D.
8:50 a.m. Sports Medicine Cardiology
Stephen P. Van Camp, M.D.
9:30 a.m. Obstructive Cardiomyopathy: Current
Treatment and Risk Assessment
William Spencer, M.D.
10:15 a.m. Break
10:30 a.m. Current Treatment and Risk Evaluation From
the Electrophysiologist's Prospective
Antonio Pacifico, M.D.
11:20 a.m. Assessment of Risk Stratification for the
Purpose of Special Issuance Airmen
Certification
Steve Carpenter, M.D.
12:00 noon Evaluation and Treatment of Diabetes in
Airmen
James N. Heins, M.D.
12:45 p.m. Lunch: Ballroom
Speaker: Betty Blake
Women's Air Force Service Pilots of WW II
2:00 p.m. General Session
Moderator: Mark C. Eidson, M.D.
2:00 p.m. Medical Programs
Jon L. Jordan, M.D.
2:45 p.m. Panel: Cardiomyopathies
Moderator: Earl F. Beard, M.D.
Panel Members
• Steve Carpenter, M.D.
• Andrew H. Miller, M.D.
• Antonio Pacifico, M.D.
• William Spencer, M.D.
• Stephen P. VanCamp, M.D.
3:45 p.m. Break
4:00 p.m. Commercial Space Travel
Arnold Angelici, M.D.
4:45 p.m. HIMS Program
Robert B. Borucki, M.D.
5:30 p.m. Adjourn:
Family evening to visit historic downtown
Charleston (dinner on your own)

SATURDAY, OCTOBER 8, 2005

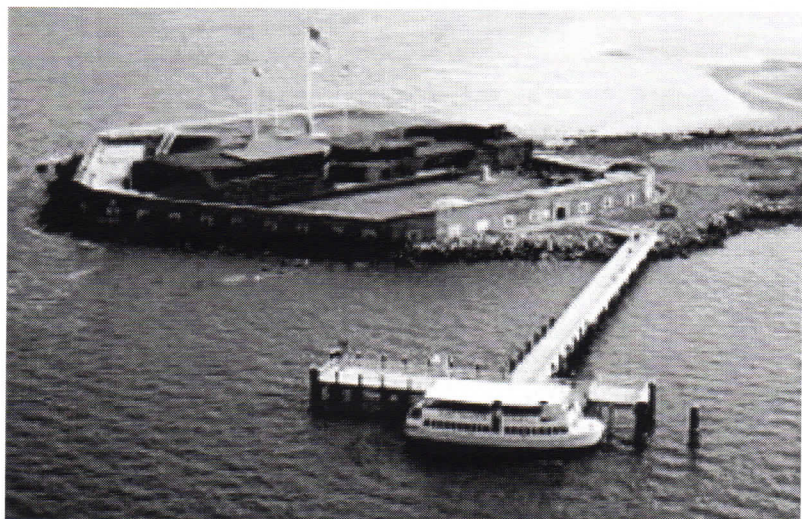
- 6:45 a.m. Breakfast Buffet:
8:00 a.m. General Session
Moderator: David P. Millett, M.D.
- 8:00 a.m. The Aging Pilot
Paul Bryman, D.O.
- 8:45 a.m. Clinical Aspects of Strokes in Aviators
John D. Hastings, M.D.
- 9:30 a.m. Carotid Artery Stenting
Ali Mortazavi, M.D.
- 10:15 a.m. Break:
10:30 a.m. Respiratory Physiology
Forrest M. Bird, M.D., Ph.D.
- 11:15 a.m. Review of an Aircraft Accident
R. L. Bendixen, M.D.
- 11:45 a.m. Hypoxic Pulmonary Hypertension
Earl F. Beard, M.D.
- 12:00 noon Panel: Carotid Artery Stenting, Best Option
for the Pilot
Moderator: Earl F. Beard, M.D.
Panel Members
- Ali Mortazavi, M.D.
 - Andrew H. Miller, M.D.
 - John D. Hastings, M.D.
 - Tim Ingall, M.D.
 - Warren Silberman, D.O.
- 1:00 p.m. Lunch
Speaker: Captain Ron Nielsen
2:15 p.m. General Session – Ballroom AB
Moderator: Gordon Ritter, D.O.
- 2:15 p.m. Medical Certification Up-date
Warren Silberman, D.O.
- 3:00 p.m. Age 60 Proposed Changes and Update
Peter S. Neff, M.S., MAS
- 3:45 p.m. Medical Certification Issues in the Field of
Ophthalmology
Richard Carlson, M.D.
- 4:30 p.m. Break
4:45 p.m. Panel: “Would You Fly With This Pilot?”
Moderator: James R. Almand, M.D.
Panel Members
- John D. Hastings, M.D.
 - Tim Ingall, M.D.
 - Ali Mortazavi, M.D.
 - Hugh O’Neill, M.D.
 - Antonio Pacfico, M.D.
 - William Spencer, M.D.
 - Jon L. Jordan, M.D.
- 5:45 p.m. Adjourn
7:30 p.m. Dinner: Honor’s Night
Speaker: Michael Bagshaw, M.D.
Awards

CONTINUING MEDICAL EDUCATION

This activity has been forwarded with a request of approval for 20 prescribed credit hours by the American Academy of Family Practice. For your information, upon receipt of approval, we will publish the number of hours granted.

**PROGRAM OBJECTIVES**

- ◆ To understand and apply the changes in aviation medicine to the individual’s private practice
- ◆ To assess specific clinical conditions/ disciplines with respect to aviation medicine
- ◆ To correctly utilize the Federal Aviation medical standards with the specific conditions discussed
- ◆ To comprehend the FAA medical program initiatives
- ◆ To understand and be able to work with the aeromedical certification system
- ◆ To comprehend the legal aspects of being an AME today



Presenters from page 5

recipient of numerous honors and awards, including the Society of Critical Care Medicine's Annual Scientific Award, the J. Kipp Charlton Humanitarian Award for Community Service, and the Rocky Mountain Emmy Award.

TIMOTHY INGALL, M.D.

Dr. Ingall is an Associate Professor in Neurology and Director of the Cerebrovascular Diseases Center at the Mayo Clinic Scottsdale and Mayo Clinic Hospital in Arizona. After completing his medical degree at the University of Sydney, he completed specialist training in neurology, as well as a Ph.D. in neurology, through the University of Sydney and the Royal North Shore Hospital. He then completed a two-year postgraduate stroke fellowship at the Mayo Clinic in Rochester, Minnesota, before returning to Australia in 1988 to run the Stroke Unit at the Royal North Shore Hospital in Sydney. In 1990, he returned to the United States to take up his current position at the Mayo Clinic in Arizona. His major interests are the epidemiology of stroke, and primary and secondary stroke prevention. Dr. Ingall is involved actively with both the American Heart Association and American Stroke Association. He is the current co-chair of the ASA's Operation Stroke initiative that is working towards reorganizing stroke services in Phoenix to improve acute stroke patient care. Dr. Ingall's Board Certification: Fellowship of the Royal Australasian College of Physicians (F.R.A.C.P.),

certified with the American Board of Psychiatry and Neurology. Professional Memberships: Australian Association of Neurologists, Fellow of the American Stroke Council, American Academy of Neurologists, Stroke Society of Australia, Fellow of the American College of Physicians, International Stroke Society.

JAMES E. ZINS, M.D.

Dr. Zins graduated from Philips Exeter Academy in 1966, from Princeton University in 1970, and received his M.D. degree from Pennsylvania in 1974. Dr. Zins served his internship, general surgery residency, and residency in plastic surgery at the Hospital of the University of Pennsylvania. He completed a fellowship in craniofacial surgery at the Children's Hospital of Philadelphia and a maxillofacial fellowship at Great Ormond Street University College Hospital in London. He joined the Cleveland Clinic Foundation in 1983 and was appointed Chairman of the Department of Plastic Surgery in 1992. He is also on the faculty (non-tenure track) of the Cleveland Clinic Lerner College of Medicine of Case Western Reserve University. Dr. Zins serves on numerous committees of plastic surgery societies and has written over 25 articles in peer-reviewed journals in plastic surgery as well as numerous book chapters. Dr. Zins has received many honors: The Best Doctors in America; Midwest Region Woodward/White, Inc., 1996, 1998, 2001, 2002, 2003, 2004; Cleveland/Clinic Teacher of the Year 2001 – 2002, to list a few.

GLOBAL FLYER GOES THE DISTANCE

THE VIRGIN ATLANTIC Global Flyer, piloted by Steve Fossett, landed at Salina, Kansas, at 1:50 pm CST on Mar. 3, completing his record-setting, around-the-world flight in 67 hours, 2 minutes and 38 seconds. The aircraft took off from Salina Airport, Kansas, at 6:47 pm CST on Feb. 28, 2005.

Steve Fossett said, after arriving back, "I've wanted to do this flight for a long time – it has been a major ambition. It would not have been possible without the right people being associated with the project, such as Scaled Composites, led by Jon Karkow (who built the plane), and Richard Branson, along with Virgin Atlantic's support, and the team here at Kansas State University, including the 11 students who were integral to the project."

The record achieved is the first solo non-stop circumnavigation of the world without stopping or refueling in an aircraft, meeting the criteria of the Federation Aeronautique Internationale (FAI). Over the next few weeks the FAI and NAA will verify the records earned by Mr. Fossett for 'Speed Around the World non-stop, non-refueled' and 'Close Circuit Distance Without Landing.' Mr. Fossett, age 60, already holds the record for flying solo around the world alone in a balloon in July 2002, as well as dozens of other aviation and balloon records.

The pioneering aircraft – the single-engine turboprop Virgin Atlantic Global Flyer – was designed by Burt Rutan and built by California-based Scaled Composites. The aircraft took off at a weight of 22,100 lb, including 18,100 lb of fuel. Scaled used computer-aided aerodynamics to design the aircraft. The structure of the plane is entirely made from composite material and is ultra light.

FP

CIVIL AVIATION MEDICAL ASSOCIATION

Sustaining and Corporate Members

The financial resources of individual members alone cannot sustain the Association's pursuit of its broad goals and objectives. Its forty-six year history is documented by innumerable contributions toward aviation health and safety that have become a daily expectation by airline passengers worldwide. Support from private and commercial sources is essential for CAMA to provide one of its most important functions: that of education. The following support CAMA through corporate and sustaining memberships:

SUSTAINING MEMBERS

James R. Almand, Jr., M.D.
R.L. Bendixen, M.D.
Forrest M. Bird, M.D., Ph.D.
Stephen V. A. Blizzard, M.D.
David Bryman, D.O.
Per-Johan Cappelen, M.D.
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Age 60 from page 1

rule from 1960 through the union's executive board meeting in 1980. Today, ALPA has re-opened the age 60 retirement discussion among its membership, and the union will hold a vote at the May, 2005, executive board meeting in order to provide membership direction to the ALPA leadership regarding support for the current rule or support for changing the rule.

House Bill H. R. 65, introduced by Representative James Gibbons of Nevada on January 4, 2005, and Senate Bill S.65, introduced by Senator James Inhofe of Oklahoma on January 24, 2005, for consideration by the 109th Congress, constitute the latest legislative efforts to change the Age 60 Rule. The bills are identical and contain the following points:

- The bills would amend Section 44703 of title 49, United States Code.
- The Administrator (FAA) may not deny, defer, or fail to renew an airman or medical certificate to serve as a pilot under 14 CFR 121 based solely on age if that pilot has not attained Social Security retirement age.
- The Administrator may not require an air carrier to terminate from service under 14 CFR 121, a pilot based solely on age if that pilot has not attained Social Security retirement age.
- Nothing in the regulation will provide the basis for a claim of seniority for a pilot who was previously terminated under the current 14 CFR 121.383(c).
- Upon enactment of this subsection, the provisions of 14 CFR 121.383(c) shall not apply, and the Administrator shall take such actions as necessary to carry out this subsection.

What does the legislative language mean? In simple terms, it means that pilot retirement age would be amended to be normal Social Security age, as defined in the Social Security Act, and that air carriers would be able to employ a pilot in line operations until the pilot attained normal Social Security retirement age. Additionally, those pilots who have retired under the current Age 60 Rule cannot return to work under the new rule. Additionally, the legislation directs the FAA to change the regulations to reflect the tenets of the legislation, but the legislation does not specify how the FAA is to implement the new retirement rule.

The FAA recently published a proposal that would increase the retirement age for air traffic controllers from 56 years old to 61 years old. Included in the proposal were provisions for additional, more stringent, physical testing as a condition for the increase in the retirement age. J. Randolph Babbitt, a former Eastern Airlines pilot and former president of ALPA, believes that a new medical exam profile, to include cognitive testing, most likely would be required to implement the legislation increasing the airline pilot retirement age.

A recent study conducted at Johns Hopkins Bloomberg School of Public Health and supported by the National Institute on Aging assessed the relationship between pilot age and safety. According to Guohua Li, M.D., Ph.D. (lead author of the study and professor of emergency medicine and of health policy and management), the study indicated that performance in most flight-related tasks such as decision-making, tracking, takeoff, and landing does not differ significantly between older pilots and younger pilots. Dr. Li also stated that the lack of association between pilot age and crash risk may reflect a strong "healthy worker effect" derived from the rigorous

medical standards and periodic physical examinations required for professional pilots. The study can be reviewed in full by referencing Vol. 157, No. 10, pages 874-880 of the *American Journal of Epidemiology*.

A recent research project conducted by this author surveyed 237 senior Aviation Medical Examiners regarding their opinions concerning the Age 60 Rule governing airline pilot retirement. More than 83% of the respondents favored an airline pilot retirement greater than age 60, and 36% of the respondents selected age 65 as an appropriate age for airline pilot retirement. Interestingly, more than 31% of the senior AMEs surveyed indicated that normal Social Security age or no mandatory retirement age would be an appropriate age for airline pilot retirement. The same survey of senior AMEs split 50/50 on questions regarding the need to implement more stringent physical standards to support an increase in the retirement age. Further, the survey did not indicate a clear preference for altering current regulatory medical standards as expressed in 14 CFR Part 67 for all applicants, regardless of age, or for those applicants over 60 years of age to support an increase in the retirement age for airline pilots.

The Airline Pilots Association's leadership will be given clear direction by its membership at the executive board meeting in May 2005. As the political climate changes in ALPA and the Congress, expect the interested parties to debate all aspects of this controversial issue ranging from age discrimination, physical and cognitive health as they relate to job performance, and the effects on air transportation safety during the 109th Congress.

FP

Mr. Neff is an airline transport pilot qualified to fly the A320, B737, DC9, DA20, DHC-8, F27, and L300. He is also a Certified Flight Instructor.

OBESITY: A FAMILY PHYSICIAN'S PERSPECTIVE

Four Proven Ways to Avoid the Trap of Obesity

BY MARK C. EIDSON, M.D.

IDARE SAY, 60% or more of patients I see have at least moderate obesity. This is even true with the pediatric patients I treat. Obesity leads to hypertension, diabetes, coronary heart disease, arthritis, and other illnesses. I diagnose new-onset diabetes in at least one patient weekly, mostly due to obesity.

Obesity has become a national epidemic of colossal proportions. I recently read an article in *USA Today* citing a study detailing the U.S. obesity problem. The study showed that the average American adult weight is 25 pounds more now than in 1960. This obesity epidemic will negatively impact our national health system more than any other disease entity known.

We now live in a fast-food world demanding instant gratification. Our public schools continue to deduce physical and health education, and diets full of fat and sugar abound. We are truly a spoiled nation, and it is easy to abuse the inexpensive "corneous copious" which lies before us.

What must we do to avoid the trap of obesity? Although there are genetic tendencies towards obesity, to avoid this national epidemic and health risk is simple. The answer is "diet and exercise," if you haven't heard.

To exercise to lose weight is helpful but impractical. A one-mile jog will burn off 100 calories, or half of a small brownie. The real key is diet. For a healthy heart, however, I recommend 30 minutes of a continuous aerobic exercise daily. Doing so, most individuals will exercise five days per week. A two-mile walk in 30 minutes is a good example of a healthy heart exercise.

Have you ever wondered why there are countless diets and diet programs? This is because they all work; yet none of them work. Even the low carb, high protein, or South Beach diets, now in fad, work very well but have by my observation a long-term failure rate over 99%.

Diet is, however, the key to weight control, and I have several ideas to prescribe:

1. The Two-Minute Meal Drill
2. The Indian Medicine Man Rule
3. The 30-Gram Fat/Day Diet
4. Weight Watchers

The Two-Minute Meal Drill involves completely chewing food and waiting two minutes between bites. I had one happy patient ask, "You mean you have two minutes to eat your meal?" No, it means two minutes between each bite. This allows one's brain to catch up to what one's stomach is telling it. It also allows for more social and interaction time while dining. I know an individual who has lost over 100 pounds using this technique.

The Indian Medicine Man Rule is an interesting idea given to me by my patient, Mr. Obadiah Beene. Obie is now 105 years old and can still drive to the Senior Center to volunteer for the "old folks." At the age of 90, he married a lovely woman 70 years of age. I warned him about the talk around town that he was "robbing the cradle." Obie stated that he attributes his long and healthy life to the Indian Medicine Man's advice given him years ago, which he took to heart.

In 1932, at the First Monday trading day at the courthouse square in Weatherford, Texas, he stopped by

the Indian Medicine Man's booth. He paid his "two bits" and then asked for "words of wisdom." I can only imagine how the Indian was dressed when Obie asked, "What does a man like me in my thirties need to do for long life?" The Indian Medicine Man then looked him straight in the eyes and stated, "Look at what you want to eat," and with his hand in a vertical salute about the nose, finished his statement, "and then eat half."

Interestingly to me is that before medical school, I spent a year doing Ph.D. work in physiology where my professor, Dr. Masoro, published the classic work on longevity. In this study, he was able to increase the average life span of rats by 2- or 3-fold that of the controlled group by reducing their caloric intake. In other words, to live long, eat less.

The 30-Gram Fat/Day Diet is very simple and will work. Almost every food available now has labels listing grams of fats per serving. Just tally up the grams of fat used and stay within 30 grams per day. This is sometimes an eye-opener to my patients. A small package of Fritos will have 14 grams of fat, while a single double-meat, double-cheese, bacon burger will easily surpass two days of fat allowance.

Weight Watchers. If all else fails, outside the bariatrics clinics, I find the best commercially available organization is Weight Watchers. This program teaches a healthy lower fat and higher fiber diet and encourages behavior modification by using the point system. I have many patients who have maintained their weight loss now for many years using the maintenance program.

Using these ideas, I hope to benefit my patients and others.

FP

CASE OF THE WEEK

An Episode of Lightheadedness After Exercising Led to a Potentially Serious Outcome

By **DAVID BRYMAN, D.O.**,
SENIOR AME

A 42-YEAR-OLD captain for a major airline was seen at my office for an evaluation regarding his hypertension. He had been checking his blood pressure at home and noticed a trend of readings that were elevated at approximately 160/90s.

Upon evaluation, the patient denied having chest pain, dypnea, or hyperlipidemia. He has a history of five years of tobacco use, but he stopped smoking in 1985. He was

conservatively treated with Valsartan 160mg QD and had an excellent response without any side effects.

When the patient was seen again for follow-up, he complained of one episode of lightheadedness after exercising using a treadmill at his local gym. He again denied chest pain or shortness of breath and stated the episode resolved after a few minutes.

He has no prior cardiac history, and recent blood lipid readings were LDL 136 and triglycerides 165. Since the episode occurred with exercise, he was referred to a cardiologist for a stress test and was taken off flight status.

The patient was seen the following day by the cardiologist, and the stress test revealed dramatic ST segment elevation in the inferior leads

with typical ST segment depression in the lateral leads—consistent with a hemodynamically high-grade lesion in the right coronary artery.

The patient was taken to the cardiac cath lab that afternoon and had a coronary stent placed in the right coronary artery for a 99% stenotic lesion. The patient's recovery has been uneventful.

It is interesting that this patient has had normal exams by his Aviation Medical Examiner every 6 months and had yearly EKGs that were unremarkable, yet he ended up with a high-grade stenosis.

The presenting symptoms were certainly "atypical," and he was fortunate to have had such a positive outcome.

FP



CAMA Board members caught taking a break while planning the annual scientific meeting. (L-R) David Millett, M.D., Susan Northrup, M.D., and David Bryman, D.O.

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TWO GREAT STORIES

With all his wealth and influence, there were two things Easy Eddie couldn't give his son...

HE WAS NOTORIOUS for enmeshing the windy city in everything from bootlegged booze and prostitution to murder.

Al Capone had a lawyer nicknamed "Easy Eddie." He was Capone's lawyer for a good reason. Eddie was very good! In fact, Eddie's skill at legal maneuvering kept Big Al out of jail for a long time. To show his appreciation, Capone paid him very well. Not only was the money big, but also Eddie got special dividends. For instance, he and his family occupied a fenced-in mansion with live-in help and all of the conveniences of the day.

The estate was so large that it filled an entire Chicago city block. Eddie lived the high life of the Chicago mob and gave little consideration to the atrocities that went on around him.

Eddie did have one soft spot, however. He had a son that he loved dearly. Eddie saw to it that his young son had the best of everything: clothes, cars, and a good education. Nothing was withheld. Price was no object. And, despite his involvement with organized crime, Eddie even tried to teach him right from wrong.

Eddie wanted his son to be a better man than he was. Yet, with all his wealth and influence, there were two things he couldn't give his son — he couldn't pass on a good name and a good example.

One day, Easy Eddie reached a difficult decision. Easy Eddie wanted to rectify wrongs he had done. He decided he would go to the authorities and tell the truth about Al "Scarface" Capone, clean up his tarnished name, and offer his son some semblance of integrity. To do this, he would have to testify against The Mob, and he knew that the cost would be great. So, he testified.

Within the year, Easy Eddie's life ended in a blaze of gunfire on a lonely Chicago Street. But in his eyes, he had given his son the greatest gift he had to offer, at the greatest price he would ever pay. Police removed from his pockets a rosary, a crucifix, a religious medallion, and a poem clipped from a magazine.

The poem read:

*The clock of life is wound but once
And no man has the power
To tell just when the hands will stop
At late or early hour.
Now is the only time you own.
Live, love, toil with a will.
Place no faith in time.
For the clock may soon be still.*

Story Number Two

World War II produced many heroes. One such man was Lieutenant Commander Butch O'Hare. He was a fighter pilot assigned to the aircraft carrier Lexington in the South Pacific.

One day, his entire squadron was sent on a mission. After he was airborne, he looked at his fuel gauge and realized that someone had forgotten to top off his fuel tank. He would not have enough fuel to complete his mission and get back to his ship. His flight leader told him to return to the carrier. Reluctantly, he dropped out of formation and headed back to the fleet. As he was returning to the mother ship, he saw something that turned his blood cold. A squadron of Japanese aircraft were speeding their way toward the American fleet.

The American fighters were gone on a sortie, and the fleet was all but defenseless. He couldn't reach his squadron and bring them back in time to save the fleet. Nor could he warn the fleet of the approaching

danger. There was only one thing to do. He must somehow divert them from the fleet.

Laying aside all thoughts of personal safety, he dove into the formation of Japanese planes. Wing-mounted 50 calibers blazed as he charged in, attacking one surprised enemy plane and then another. Butch wove in and out of the now broken formation and fired at as many planes as possible until all his ammunition was finally spent. Undaunted, he continued the assault.

He dove at the planes, trying to clip a wing or tail in hopes of damaging as many enemy planes as possible and render them unfit to fly.

Finally, the exasperated Japanese squadron took off in another direction. Deeply relieved, Butch O'Hare and his tattered fighter limped back to the carrier.

Upon arrival, he reported in and related the event surrounding his return. The film from the gun-camera mounted on his plane told the tale. It showed the extent of Butch's daring attempt to protect his fleet. He had, in fact, destroyed five enemy aircraft. This took place on February 20, 1942, and for that action Butch became the Navy's first Ace of WWII and the first Naval aviator to win the Congressional Medal of Honor.

A year later, Butch was killed in aerial combat at the age of 29. His home town would not allow the memory of this WW II hero to fade, and today, O'Hare Airport in Chicago is named in tribute to the courage of this great man.

So the next time you find yourself at O'Hare International, give some thought to visiting Butch's Memorial displaying his statue and his Medal of Honor. It's located between Terminals 1 and 2.

So what do these two stories have to do with each other?

Butch O'Hare was Easy Eddie's son.

FP

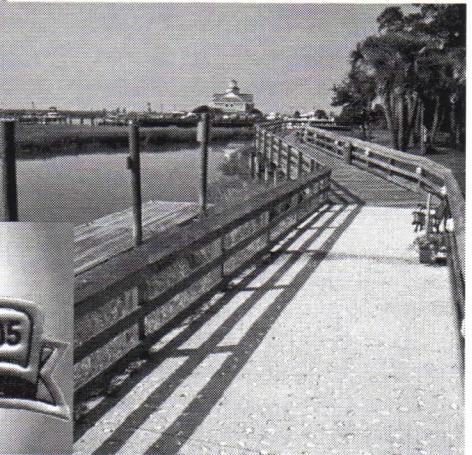
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GULF WAR SYNDROME RE-EXAMINED

An abstract by University of Texas Southwestern Medical School researcher Robert W. Haley, M.D., shows that Gulf War Syndrome represents a new disease process in the population of Gulf War veterans. Understanding its etiology could lead to significant benefits.

BY JAMES R. ALMAND, M.D.

BEGINNING IN 1994, the Gulf War Syndrome (GWS) has been studied via many newer concepts. The previous determination was that GWS was solely due to stress or Post-Traumatic Stress Disorder (PTSD) and many assessments by the VA system came to the same conclusions. However, recent analysis of both American and British Gulf War veterans has revealed a syndrome much different. The quality of the extensive evaluation of 10,000 such veterans was compared with 95,000 non-Gulf War veterans, and an interesting conclusion followed. Indeed, these studies suggested that the syndrome represented a new disease process in the population of Gulf War veterans.

Three principal subject groups of ill Gulf War veterans were identified, and symptoms for each of the primary syndrome are listed in Table 1. Psychiatric profiles measured by Personality Assessment Inventory (PAI) were entirely within normal limits and were not compatible with PTSD or other psychological disorders but

instead resembled findings in patients with neurological disease or injury.

Subsequently, a prolonged in-depth evaluation of the veterans (both deployed and non-deployed) was performed at the Dallas Veterans Administration Hospital. Following these tests, it was noted that statistically significant and important differences of neurological function in deployed members suggested neurotoxic brain damage in the GWS group. It was felt likely that an organic basis for GWS was overlooked. One other brain study of dopamine control again supported the theory of neurologic basis of GWS, felt related to dopaminergic neuron injury in the basal ganglia.

Another outcome in these above and other reviews of parasympathetic control abnormality, amyotrophic lateral sclerosis in GW veterans also showed an increase above the expected in a statistically significant number. The excess incidence has continued at least through 2003.

From the questions arising with the above studies, epidemiological investigations followed, evaluating soldiers' use of flea or tick collars, exposure to chemical or nuclear weapons, landmines, insect repellants, and Sarin. Many animal studies suggest combinations of exposure to organophosphates and related chemical or other nerve agents (Sarin, etc) may produce neurologic injury.

The question remaining yet is why one Gulf War veteran got sick while the person serving next to him did not. That particular puzzle had encouraged the VA's feelings that stress was related to GWS. However, further studies are underway to determine if a genetically related trait could be related to the development of chronic brain damage as it occurs in GWS.

It is known that some mammalian species have mechanisms of protection against organophosphate poisons. Indeed, further human genetic studies reveals that certain individuals have better genetic protection from these poisons than others.

For instance: BChE (pseudocholinesterase) PON1 (paraoxonase/arylesterase) finds and sequesters these poisons from neural tissue and destroys these organophosphates by hydrolysis to harmless products that are then excreted. Genetic variance of BChE and even the human PON1 gene can exist in

Table 1. Case definitions of Gulf War Syndrome

Continued →

Syndrome 1. Impaired Cognition	Syndrome 2. Confusion-Ataxia	Syndrome 3. Arthro-Myo Neuropathy
<ul style="list-style-type: none"> • Distractibility • Memory problems • Depression • Middle/terminal insomnia • Fatigue (daytime sleepiness) • Slurring of speech • Confused thought • Migraine-type headaches 	<ul style="list-style-type: none"> • Thinking/reasoning problems • Getting confused or lost • Getting disoriented • Losing balance • Stumbling often • Feeling like the room is spinning • Physician's diagnosis of PTSD/depression • Sexual impotence 	<ul style="list-style-type: none"> • Generalized joint and muscle pain • Increased difficulty lifting heavy objects • Fatigue (muscle weakness after exertion) • Tingling/numbness of extremities

different individuals and protective activity can vary many fold.

Studies on Desert Storm Seabees and their PON1 polymorphism showed that those veterans with lower genotype levels had lower protective enzyme activity than other veterans. Specifically, the PON1, Q912R polymorphism could be an important clue to neurologic problems leading to GWS. It could indeed link the illness to certain chemicals for which PON-Q allozyme has high hydrolytic activity. Further, this genotype and enzyme activity study suggests a dual important and additive role in this neurologic syndrome rising from the Gulf War.

New research is now in progress to develop a larger case control study to investigate the earlier study. A large Department of Defense and privately funded study of biomarkers, brain imaging, neuropsychological tests, and paraoxonase assays will involve a larger group of GWS cases. This independent retrospective review of the neurotoxic and genetic predisposing effect of various chemicals on the human body will shed great information on use of chemicals both in civil and warfare conditions.

A leader of invaluable research, Dr. Robert W. Haley, has now introduced a particularly important change in our earlier concept of GWS etiology. Consider as a reflection our previously imbedded attitudes regarding the GWS, tobacco, obesity, diet, exercise, industrial exposure, insecticides, herbicides, allergens – on and on, in comparison to newer concepts of genetic importance. Potentially, this new research on Gulf War Syndrome could even lead to understanding and protecting populations as a whole, both in conditions of war, terrorism, or accidental industrial exposures.

FP

THE HIMS PROGRAM

A Challenging, Rewarding Program for Recovering Alcoholic Pilots

By **BOB BORUCKI, M.D.**

HIMS STANDS FOR *Human Intervention and Motivation Study*. Its cryptic name had a much better ring than *Program for Drunk Airline Pilots*. Its beginnings were in the mid-1970s, when a grant started a joint program between ALPA and the NIAAA, the National Institute for Alcohol Abuse and Alcoholism. In short, it is a “fast track” for airline pilots who are identified as having alcohol abuse or alcoholism to get them treated, monitored, and back to flying in a timely manner.

As you know, if a pilot is identified as an alcoholic, they have a disqualifying medical condition, and must have documented sobriety for at least two years to be reconsidered for a special issuance. This timeframe may be decreased to one year— at the discretion of the FAA physicians in Oklahoma City—if there is formal alcoholism treatment.

This prolonged timeframe would be devastating to an airline pilot's career. Prior to this, one option that was exercised commonly, was to go out on sick leave, go to treatment in secrecy, and then go back to work. This method had several problems — alcoholism recovery is based on honesty, and they were setting themselves up for enforcement action for lying on their FAA Form 8500-8.

The HIMS program was hammered out through the joint efforts of the alphabet groups listed above, and to date, has been extremely successful, with a long-term sobriety

rate of over 90%. The overall long-term success rate for sobriety for the general population is around 13%. To date, more than 3,500 pilots have successfully gone through this

program. There are several theories why this program has such higher success, such as having mandatory

Alcoholics Anonymous (AA) meetings and Aftercare, good primary treatment, and having the pilot's livelihood at stake.

For about three years, I have been one of about 70 Aviation Medical Examiners across the country participating in this program. My designation is “Independent Medical Sponsor,” which is not to be confused with an AA sponsor. My job is to arrange and monitor primary treatment, arrange the requirements afterwards to get back to flying, including Aftercare, formal psychological testing, and a psychiatric evaluation by a psychiatrist.

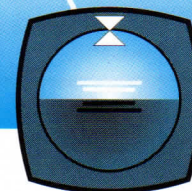
Then, for a period of at least three years, the pilot will only be able to obtain his medical from me, which allows me to carefully follow his progress and recovery. I have worked with about 25 pilots through this program. It has often been a challenge, but has always been rewarding.

FP

Dr. Bob Borucki is a Family Practitioner in Columbia, S.C., with Instrument and Commercial Multiengine ratings, who generally flies around in an Aztec.

*The HIMS Web site is
www.himsprogram.com*

On The Horizon



AEROSPACE MEDICAL ASSOCIATION ANNUAL MEETING SCHEDULE

May 8 – 12, 2005 _____ Kansas City, Missouri

CIVIL AVIATION MEDICAL ASSOCIATION ANNUAL MEETING SCHEDULE

October 5 – 9 , 2005 _____ Charleston, South
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October 4 - 8, 2006 _____ Ottawa, Canada
Ottawa Marriott Hotel

October 10 - 14, 2007 _____ San Diego, California
The San Diego Marriott
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FAA AVIATION MEDICAL EXAMINER SEMINAR SCHEDULE

2005

May 9-12 _____ Kansas City, Mo. (AsMA)
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June 13-17 _____ Oklahoma City, Okla.
Basic

July 15-17 _____ Bellevue, Wash.
Neuro/Psychol/Phy

August 5-7 _____ Boston, Mass.
Cardiology

September 12-16 _____ Oklahoma City, Okla.
Basic

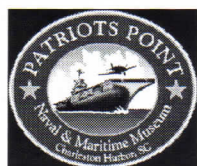
November 18-20 _____ Savannah, Ga.
Aviation Physiology/HF

December 5-9 _____ Oklahoma City, Okla.
Basic



U.S.S. Yorktown tour, Charleston, S.C.

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