



Ever Upward

August 2024

Orford Installed as AsMA President; Silberman Is President-Elect

Robert Orford, M.D., CM, MS, MPH, was installed as President of AsMA during the Annual Business Meeting, held May 7, 2024, at the Hyatt Regency Chicago, Chicago, IL, United States. He is currently Consultant Physician, Mayo Clinic, Scottsdale, AZ, and Mayo Clinic Healthcare in Partnership with Oxford University Clinic, London, UK, an Assistant Professor at the Mayo Clinic of Medicine, an FAA Aviation Medical Examiner, and an Associate Professor at the University of Texas Medical Branch in Galveston. He is a Fellow of the Royal



College of Physicians and Surgeons of Canada, a Fellow and past Director of the Alberta Occupational Health Society, and a member of the Canadian Occupational Health Society, the American Occupational Health Society, the Occupational Medical Association of Alberta, the Occupational Medical Association of Canada, the Canadian Public Health Association, the American Public Health Association, the Canadian Society of Aviation Medicine, and the Canadian Medical Association.

Dr. Orford was awarded a National Health Fellowship from Canada from 1975–1976 and is licensed by the state of Minnesota, the state of Washington, and the province of Alberta. He is a Diplomate of the National Board of Medical Examiners. He is a member of and was President of the Airline Medical Directors Association. He is also a Fellow of the Aerospace Medical Association, serves on its Scientific Program Committee, and was Parliamentarian on AsMA's Council. He is a recipient of AsMA's Boothby-Edwards and Won Chuel Kay Awards. A more comprehensive biography can be found in the August 2023 issue of Aerospace Medicine and Human Performance [AMHP 2023; 94(8):656] or in the August 2023 newsletter (p. N49).

Warren Silberman, D.O., MPH, was confirmed as President-Elect of AsMA during the Annual Business Meeting on May 7, 2024. He will be installed as President next year. He is currently performing aviation medical examinations and consultations. He earned an AA degree in 1969 from the Community College of Philadelphia in Pennsylvania and then a B.A. degree from Temple University in Philadelphia in 1971. He received his D.O. degree from the College of Osteopathic Medicine and Surgery in Des Moines, IA, in 1974 and his MPH degree



in 1991 from the University of Texas Health Science Center of Houston, San Antonio, TX. He served an internship at Lancaster

er Osteopathic Hospital, Lancaster, PA, from 1974–1978 and a residency at Community General Osteopathic Hospital in Harrisburg, PA, from 1975–1978. He later served a residency in Aerospace/Preventive Medicine at the U.S. Air Force School of Aerospace Medicine, Brooks AFB, TX, from 1991–1992.

Dr. Silberman retired for the second time in late September 2020. Prior to that he was a Medical Officer in the FAA's Aerospace Medical Education Division. From December 2019 until June 2020, he was the medical officer responsible for performing the hazard analysis for all fatal aircraft accidents. He spent 2 years as the Manager of the Occupational Health Clinic at the FAA's Civil Aerospace Medical Institute. He moved from the Aerospace Medical Education Division where he was writing AME courses, teaching AMEs, international aerospace physicians, and residents in aerospace medicine. Prior to that he was working in retirement for 5 years as an AME and Consultant. From June 1997 until January 2012, he was the Manager of Aerospace Medical Certification for the FAA. In that position he ran the largest division in the Office of Aerospace Medicine, lectured extensively both in the United States and internationally, and wrote articles. During the same time, he was the Oklahoma State Air Surgeon responsible for the Air National Guard healthcare.

Dr. Silberman is a past president of the Aerospace Medicine Division of the American Osteopathic College of Occupational and Preventive Medicine and the past Chair of the Fellows Group of the Aerospace Medical Association (AsMA) and a past Vice President of Education and Research. He is a Fellow of AsMA and a member of the Aircraft Owners and Pilots Association, the American College of Osteopathic Internists, the American Osteopathic Association, the American Osteopathic College of Occupational and Preventive Medicine, CAMA, the Experimental Aircraft Association, the International Association of Aviation and Space Medicine, the Society of USAF Flight Surgeons, the Society of U.S. Army Flight Surgeons, and the Airline Medical Directors Association. His awards and honors include the U.S. Army Order of Aeromedical Merit; CAMI Employee of the Year; the Audie and Bernice Davis Award presented by CAMI; the Theodore Lyster, Boothby-Edwards, and Tamisiea Awards from AsMA; Office of Aerospace Medicine Flight Surgeon of the Year (twice); President's Commendation from CAMI for outstanding medical certification of airline pilots; and the Legion of Merit, awarded by U.S. Army Surgeon General Ronald Blanck for service at Raymond W. Bliss Army Community Hospital.

Other elected officials are: **Vice President** Fred Bonato, Ph.D., and Rowena Christiansen, M. Emerg. Health., MBA, M.B.B.S., B.A. Hons., LLB, Grad. Dip. Ed., DCH, Grad. Cert. Space Studies., ACCAM, and **Members-at-Large** Roy Allen Hoffman, M.D., MPH, Thomas Hoffman, D.O., MPH, Bonnie Posselt, B.Sc., MBChB (E), Ph.D., MRCP, D. Av. Med., ARAeS, FASMA, and Annette Sobel, M.D.

Send information for publication in this newsletter to: Journal Department, AsMA: rtrigg@asma.org

Aerospace Medical Association Honors Night Awards

Hyatt Regency Chicago, Chicago, IL; May 9, 2024

Dr. Joe Dervay, President of the Aerospace Medical Association, presented 21 awards to outstanding members during the Honors Night ceremonies at the 94th Annual AsMA Scientific Meeting, May 9, 2024, at the Hyatt Regency Chicago, Chicago, IL. Eric Olins, M.D., Chair of the Awards Committee, read the citations. The names of the awards' sponsors and representatives, when present, are printed in parentheses.

The Clark award was not presented this year. The Bauer Award was presented after the Reinartz lecture on May 7, 2024, as Dr. Auñón-Chancellor could not attend Honors Night. The Longacre Award was presented, but Mr. Merriman was not able to be there.

All photos by Pamela C. Day. A photo gallery is available at: <https://aeromed.smugmug.com/Meetings/2024-AsMA-Meeting-in-Chicago/Honors-Night-Select>.



Joseph Dervay, 2023–2024 AsMA President



**2024 Louis H. Bauer Founder's Award
Serena Auñón-Chancellor, M.D., MPH, FACP**



**2024 John C. Adams Award
Roy A. Hoffman, M.Sc., M.D., MPH
(Robert Krause, Society of U.S. Naval Flight Surgeons)**



**2024 Boothby-Edwards Award
William Hoffman, M.D.**



**2024 John Ernstring Award
David Gradwell, B.Sc., Ph.D., MBChB, FRCP, FRCPE, D.Av. Med., FRAeS
(George K. Anderson, Environmental Tectonics Corp.)**



2024 Kent K. Gillingham Award
Amanda Lippert, M.S.Ed., MS, MS, CAsP, FAsMA
 (Erich Roedig, AMST)



2024 Walter & Sylvia Goldenrath Award
Nereyda L. Sevilla, MPH, Ph.D., CAsP
 (Kim Broadwell, Goldenrath Endowed Fund)



2024 John D. Hastings Award
Angus Rupert, M.D., Ph.D.
 (Leigh Speicher, Civil Aviation Medical Association)



2024 Won Chuel Kay Award
Paulo M. Alves, M.D., M.Sc., FAsMA, FCAMA
 (Young Hwan Kwon, Korean Aerospace Medical Association)



2024 Joe Kerwin Award
Benjamin Johansen, D.O., MPH
 (Rob Janney, KBR)



2024 Mary T. Klinker Award
Natacha Chough, M.D., MPH, AFAsMA



2024 Sidney D. Leverett Environmental Science Award
Brian C. Hanshaw, D.O., MPH
 (Bob Laurent, Environmental Tectonics Corp.)



2024 Eric Liljencrantz Award
Richard Scheuring, D.O., MS, RMSK, FAsMA, FAAFP
 (Michelle Scheuring accepts; Russell Rayman, Aerospace Medical PLC)



2024 Raymond F. Longacre Award
Stephen C. Merriman, B.S., MS, ATFB Boeing, AFAsMA, FHFES
 (Harriet Lester, Aerospace Human Factors Association; Mr. Merriman was unable to be there.)



2024 Theodore C. Lyster Award
Courtney D. Scott, Jr., D.O., MPH, FAsMA
 (Jennifer Benincasa, Army Aviation Medical Association)



2024 Marie Marvingt Award
Massamba Diop, M.D.
 (Vincent Feuillie, La Société Francophone de Médecine Aéronautique)



2024 Harry G. Moseley Award
Harriet Lester, M.D., FAsMA, FCAMA, FAAO, FAsHFA
 (Chris Bates, International Association of Military Flight Surgeon Pilots)



2024 John Paul Stapp Award
Diego Garcia, M.D., MSHF
 (Bob Laurent, Environmental Tectonics Corp.)



2024 John A. Tamisiea Award
Gerald Saboe, D.O., MPH, FAsMA, FAsHFA, FCAMA, FACO-EM, FAOCOPM, FACPM
 (Leigh Speicher, Civil Aviation Medical Association)



2024 Thomas J. & Margaret D. Tredici Award
Jeffery K. Hovis, O.D., Ph.D., FAAO, FAsMA
 (Douglas Ivan and Kim Broadwell, Thomas J. & Margaret D. Tredici Endowed Fund)



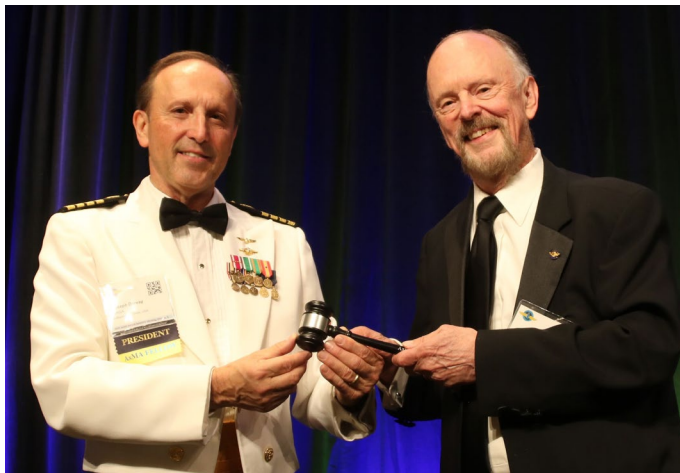
2024 Arnold D. Tuttle Award
Desmond Connolly, Ph.D., MBBS
 (Casey Pruitt, KBR)



2024 Julian E. Ward Award
Adriana Zuluaga Serna, M.D.
 (Diego Garcia accepts; Tory Woodard, Society of U.S. Air Force Flight Surgeons)



2024 President's Citation: Dr. Russell Rayman received the citation from Dr. Joe Dervay, 2023-2024 AsMA President.



Passing the Gavel: Outgoing President Dr. Joe Dervay passes the gavel to incoming President Dr. Robert Orford.



Past President's Pin: Mary Dervay pins her spouse with the Past President's pin.



Past President's Gift: Incoming President Dr. Robert Orford presents outgoing President Dr. Joe Dervay with a captain's clock as a token of appreciation.



Surprise Video: Earlier in the evening, Jeff Sventek, AsMA Executive Director, surprised Dr. Dervay with a blast from the past.



2024 Fellows: Those of the new Fellows who were present at Honors Night are pictured here with incoming Fellows Chair Dr. Dan VanSyoc (far right) and outgoing Fellows Chair Dr. Warren Silberman (far left). The names of the new Fellows were printed in the July issue of the journal [AMHP 2024; 95(7):423-424] and newsletter (p. N53).

Further photo galleries are available on AsMA's SmugMug page: <https://aeromed.smugmug.com/Meetings/2024-AsMA-Meeting-in-Chicago>.

Annual Lectures

Reinartz Lecture: This year's Reinartz lecture was a panel on space operations. Below, top to bottom, each panelist receives a token of appreciation from Dr. Dervay: Serena Auñón-Chancellor; Joe Kerwin; Joan Higginbotham, and Bob Cabana.



Bauer Lecture: Harrison Schmitt, the Bauer Lecturer, receives an honorarium from Casey Pruitt, representing KBR, the sponsor, as AsMA President Joe Dervay looks on.



Armstrong Lecture: Dr. Dervay presents Dr. Lisa Kaltenegger, the Armstrong lecturer, with a token of appreciation.



50-Year Pin: Felix Meyer receives a 50-year pin from Dr. Dervay, 2023-2024 AsMA President, at Opening Ceremonies on Monday, May 6, 2024.

Read Current News Online!

Visit the AsMA & Industry News to see what's new! Members: log in on the home page to read Member News and see who the new members are. You can also read the news in pdf format on the Newsletters page and there are archives available on the AsMA News Archive page.

Scholarship Winners



Mantri Scholarship: Dr. Dervay, 2023–2024 AsMA President, presents Nina Purvis with the Anita Mantri, Ph.D., Memorial Travel Scholarship.



Mohler Scholarship: Dr. Dervay presents the Stanley R. Mohler, M.D., Aerospace Medicine Endowed Scholarship to Dora Babocs.



Trailblazer Scholarship: Hellen Vasquez (center left) was presented the AMSRO Trailblazer Scholarship by Kim Broadwell (left), representing the AsMA Foundation, and Dr. Dervay (center right). Anaelle Ndoye (right), the 2023 Trailblazer Scholarship winner, looks on.



Davis Scholarship: Corey Morris (center) was presented with the Jeffrey R. Davis, M.D., Aerospace Medicine Endowed Scholarship by Jeffrey R. Davis (right) as Dr. Dervay (left) looks on.



AsMA International Scholarship: Dr. Dervay (left) and AsMA Executive Director Jeff Sventek (right) present the Aerospace Medical Association International Scholarship to Anthony Rengel (center).



Scarpa Scholarship: Drs. Joe Dervay (left) and Philip Scarpa (right) present the Philip J. Scarpa, Jr., M.D., Aerospace Medicine Endowed Scholarship to Claudio Franc (center).



Receptions

Sunday Welcome Reception



International Reception



President's Reception



Corporate Forum



RAM Bowl

The RAM Bowl was held Wednesday, May 8, 2024. From the right, clockwise: moderator Becky Blue and referee Walt Dalitsch go over the rules; judges Jan Stepanek and Rahul Suresh; the referees and some of the judges; one of the screens showing the team names and scores; and the top school—UTMB. The winning team was the Astro-Nots: Samantha King, UTMB; Shana Hirschert, U.S. Air Force; Jeffrey Brown, U.S. Army; Noah Kainrad, U.S. Navy; and Wiaam Elkhatab, Mayo Clinic. The top scoring participants from each school were: Samantha King, UTMB; Barrett Campbell, U.S. Army; Bryant Nieto, U.S. Navy; William Smith, U.S. Air Force; and Wiaam Elkhatab, Mayo Clinic.

More photos are available at <https://aeromed.smugmug.com/Meetings/2024-AsMA-Meeting-in-Chicago/RAM-Bowl>.



Exhibitors

The exhibit hall was open for the Welcome Reception and during the day on Monday and Tuesday, May 6-7, 2024. Pictured here are, from below top to bottom: ETC, KBR, UTMB, the AsMA Foundation, GO₂Altitude, and EnviroNics.

More photos are available on AsMA's SmugMug page at <https://aeromed.smugmug.com/Meetings/2024-AsMA-Meeting-in-Chicago/2024-Exhibitors>.

The photo in the bottom right is of the Navy Yard.

All photos by Pam Day.



Northrup Selected for Flight Safety Foundation Award

Dr. Susan Northrup, a Fellow and Past President of the Aerospace Medical Association, has been selected to receive the Laura Tabor Barbour Air Safety Award from the Flight Safety Foundation. This award recognizes achievement in the field of aviation safety—civil or military—in method, design, invention, study, or other improvement. It memorializes Mrs. Laura Tabor Barbour, who was a passenger on a commercial airline which crashed during an attempted landing in Morgantown, WV. Her husband and son initiated the award, which will be presented at the International Safety Summit in Rio de Janeiro, Brazil, in early November.



Dr. Northrup is currently the Federal Air Surgeon for the U.S. Federal Aviation Administration. In this capacity, she leads the Office of Aerospace Medicine in Washington, DC. She graduated from Ohio State University with a B.A. in Chemistry in 1985 and received her M.D. degree in 1989. She served a Family Practice internship at the Ohio State University Hospitals from 1989-1990 and then earned an MPH in 1994 from the University of Texas Health Science Center in Houston, after which she served a Residency in Aerospace Medicine from 1994-1995 and a Residency in Occupational Medicine from 1995 to 1996 at the USAF School of Aerospace Medicine, Brooks AFB, TX, USA. She graduated from the Air War College Jump Start Program in 2003. She served in the U.S. Air Force from 1990-2010 as a Flight Surgeon at Moody AFB, GA, USA; Chief of Aeromedical Services at Prince Sultan Air Base at Al Kharj, and Dhahran Air Base, Saudi Arabia; Chief of Aerospace Medicine at Pope AFB, NC, USA; and Chief of Operational Medicine at Bolling AFB, DC, USA.

During that time, Dr. Northrup deployed as part of Desert Storm and Desert Shield and was the U.S. Head of Delegation at the NATO Aeromedical Working Group, U.S. Coordinating Member at the Air Standardization Coordinating Committee, Working Party 61, and a member of the Repatriated Prisoner of War Study Group Scientific Advisory Board at the Robert Mitchell Center, NAS Pensacola, FL. From 2001 to 2005, she also served as Regional Medical Director of Air Crew and Passenger Health Services at Delta Air Lines, Inc. In 2005, she became a Medical Consultant for the National Pilots Association and in 2009, she became Commander of the 94th Aeromedical Staging Squadron at Dobbins AFB, GA. She was appointed as FAA Regional Flight Surgeon for the Southern Region in 2007. She was appointed to her current position in 2021.

Dr. Northrup's awards and honors include FAA Flight Surgeon of the Year, TAC Flight Surgeon of the Year, the Air Force Meritorious Service Medal with two oak leaf clusters, the Air Force Achievement Medal with a single oak leaf cluster, and the Air Force Outstanding Unit Award with Valor and a single oak leaf cluster. The Aerospace Medical Association (AsMA) presented her with the John A. Tamisiea Award in 2015 and the Admiral John C. Adams Award in 2020. She is a member of the Red River Valley Fighter Pilots Association, the Society of USAF Flight Surgeons, the International Airline Medical Association, the Civil Aviation Medical Association, the American Society of Aerospace Medicine Specialists, and the American Board of Preventive Medicine. She is also a Selector for the Interna-

tional Academy of Aviation and Space Medicine and was Chair of the Air Transportation Association Medical Committee. A private pilot and retired U.S. Air Force Colonel, Dr. Northrup is board-certified in aerospace medicine and in occupational medicine. She is an acknowledged expert in aviation medicine, having served as the Vice-Chair for Aerospace Medicine on the American Board of Preventive Medicine. While serving in the Air Force, she was the U.S. Head of Delegation to NATO's aeromedical working group. More recently, she has served the FAA as the FAA medical subject matter expert to ICAO's COVID response activities and the COVID IMT and the Office of Aerospace Liaison to the Air Traffic Organization. Dr. Northrup is a past President of the American Society of Aerospace Medicine Specialists and the Civil Aviation Medical Association.

Stella Receives M.P.S. Degree

Stella Sanchez, Assistant Managing Editor for Aerospace Medicine and Human Performance, recently graduated from a publishing course at George Washington University. Congratulations, Stella!

Dear Readers,

After 2 years of weeknight classes and Sundays dedicated entirely to schoolwork, I am elated to announce that I have completed my graduate studies at The George Washington University and received my Master of Professional Studies in Publishing degree.



With my parents in attendance all the way from Gainesville, FL, I was honored to participate in GW's Commencement Ceremony on the National Mall in Washington, DC, in the shade of the Washington Monument, on May 19th,

2024. We had no cell service for two square blocks due to the density of the crowd, including fellow graduates, faculty, and an infectious joyous throng of family and friends who turned out to celebrate their loved ones. It was truly a once-in-a-lifetime experience that I will treasure for years to come.

While my coursework encompassed topics ranging from book acquisition strategies and e-publishing design to copyright law

See "Graduation", p. N72



Stella Sanchez, in the middle, is flanked by her father on the left and her mother on the right.

and podcast production, I specialized in the Editorial track and particularly enjoyed investigating growing concerns about language discrimination in the scholarly publishing industry for my capstone ethics project. Altogether, it is my hope that the lessons learned and experience gained through this program will serve us all well in my continued work with our esteemed *Aerospace Medicine and Human Performance* journal.

Even as I soak in the renewed freedom of my evenings and weekends, I am already looking forward to the ramp-up of our preparations for AsMA's 95th Annual Scientific Meeting in Atlanta, GA, next June. I hope to see you all there! In the meantime, I am gladly accepting book recommendations to fill my downtime....

With gratitude and warmest wishes,
Stella Sanchez, B.A., M.P.S.

New Members

AsMA welcomed 23 new members in the past month.

- Alwadei, Fahad; Abha, Saudi Arabia
- Bolinger, Emily; Barbourville, KY, United States
- Boubekri, Sara; Delson, Quebec, Canada
- Carwell, Glenn; Virginia Beach, VA, United States
- Cooper, Christian; Offutt AFB, NE, United States
- dela Cruz, Sophia; Helotes, TX, United States
- Devlin, Justin; Phoenix, AZ, United States
- Donohoe, Margaret; Elizabeth City, NC, United States
- Drda, Jack; Pittsburgh, PA, United States
- Featherstone, Cheyenne; Arlington, VA, United States
- Hillman, Jason; Fredericksburg, VA, United States
- Jeanty, Anne-Sophie; Alexandria, VA, United States
- Kates, David; Kelowna, British Columbia, Canada
- Laboy Laboy, Maria; Baltimore, MD, United States
- Larsen, Erik; Ocala, FL, United States

Interested in Space Nursing?

A survey study of space nursing interest, opportunities, and barriers

You are invited to participate in a research study aimed at describing nurses' interest, opportunities, and barriers to a career in space nursing. You will be asked to complete an online survey that will take about 10 minutes to complete. There are no benefits or payment associated with participation.

Who Is Eligible?

- Adults age 18 or over
- Nursing students and professional nurses
- Able to complete the electronic survey on a personal device

Click the link to join: <https://redcap.stanford.edu/surveys/> and enter code TKMMCKTPM.

For more information, contact Protocol Director Aubrey Florom-Smith, Ph.D., RN, Manager, Patient Care Research, Office of Research, Stanford Health Care, Clinical Assistant Professor, Department of Medicine, Stanford University School of Medicine; aubsmith@stanford.edu.

For complaints, concerns, or participants rights questions, contact 1-866-680-2906.

- Mallick, Anik; Sheffield, South Yorkshire, United Kingdom
- Mehanni, Mina; Saint Louis, MO, United States
- Rafferty, Iris; Webster, TX, United States
- Rossel de Villena, Jordi; Edinburgh, Scotland, United Kingdom
- Schroeder, Brian; Lubbock, TX, United States
- Shakoor, Tayyab; Erie, PA, United States
- Shamash, Maya; Wellington, FL, United States
- Walden, Jeffrey; Missoula, MT, United States

AsMA also welcomed back one returning member.

- Bermudez, James; Vacaville, CA, United States

CAMTS Announces Site Surveyor Training

The Commission on Accreditation of Medical Transport Systems (CAMTS) is looking for experienced EMS Pilots, Medical Personnel with Fixed Wing experience, and EMS personnel with Mobile Integrated Health experience to apply for site surveyor positions. Site Surveyors play a vital role in the accreditation process. If you have a strong interest in safety and quality standards, please consider joining our dedicated site surveyor team. The next class will be in the first quarter 2025. Site Surveyors slots are available for both North America and CAMTS Global.

If interested, contact CAMTS office manager Shelley Dixon at shelley.dixon@camts.org for more information.

Call for Abstracts & Save These Dates!

Look for the Call for Abstracts in the August issue of the journal. The 2025 AsMA Annual Scientific Meeting will be in Atlanta, GA, United States, from June 1-6, 2025.

The theme will be "Innovation: Journey to the Future".

- Sept. 1, 2024: Abstract submission will open on or around this date. Look for NEW procedures for panels!
- Nov. 1, 2024: Abstract submission will close at 11:59:59 P.M. EST. NO EXCEPTIONS! Submit early!
- Nov. 20, 2024: AsMA Council Meeting
- Nov. 21-22, 2024: AsMA Scientific Program Committee meeting to review abstracts

We hope to see you in Atlanta!

FAA AME Seminars

These are offered by the FAA AME Program Office.

Aug. 9-11, 2024	Indianapolis, IN	Refresher
Sept. 19-21, 2024	Jacksonville, FL	CAMA
Oct. 21-25, 2024	Oklahoma City, OK	Basic
Nov. 22-24, 2024	San Antonio, TX (Pending)	Refresher

AsMA only takes registrations for the seminar held at our Annual Scientific Meeting. For more info visit the [FAA website](#).

Visit Us on Social Media!

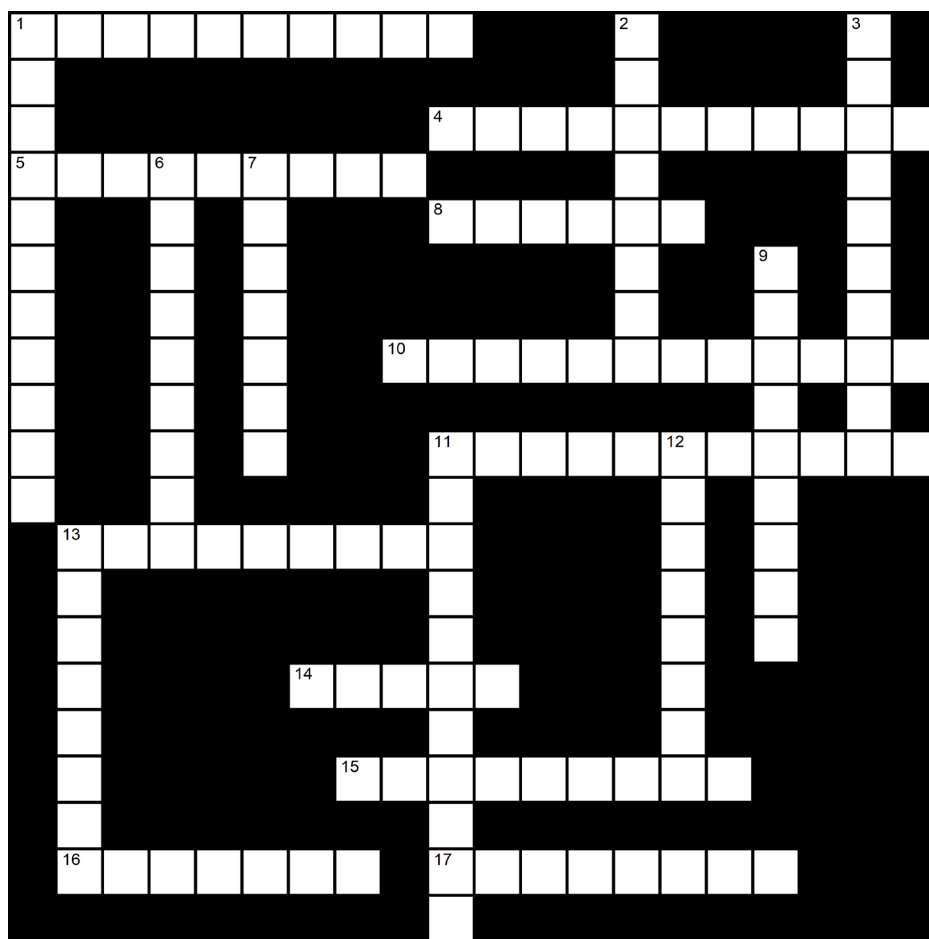
X: https://twitter.com/aero_med

FB: www.facebook.com/AerospaceMedicalAssociation

LinkedIn: <https://www.linkedin.com/company/aero-space-medical-association-asma>

Crossword

By Lt. Col. Srihari Iyer K, Flight Surgeon, Indian Army, and Dr. Sahana Srihari, Assistant Professor, Dermatology, Adesh Institute of Medical Sciences and Research, Bathinda, Punjab, India.



ACROSS

1. The most successful non-rebreathing reservoir system employed in military aviation was the RAF _____ system. (10)
4. Vestibular _____ is a term often used to denote the active process of visually overriding undesirable vestibular sensations or reflexes of vestibular origin. (11)
5. An occurrence other than an accident, associated with the operation of an aircraft, which affects or could affect the safety of operations are called as _____ as per NTSB. (9)
8. Fatal injury means any injury which results in death within _____ days of the accident. (6)
10. In case of ditching of an aircraft and survival in water, the fourth phase of responses to cold immersion is termed as _____ - _____ phase. (12)
11. _____ Injury Scale is the most commonly used Injury Scaling system for quantitative analysis of the injuries and plotting injury severity against seating position facilitates spotting patterns in the distribution of injuries throughout the aircraft. (11)
13. During ejection, the _____ pressure on the face may cause petechial and conjunctival haemorrhages and, if the mouth is open and unprotected, blast damage to the lungs. (9)

14. A _____ is an exact replica of an ejection seat in a jet fighter, but equipped with additional systems that provide haptic feedback to the pilot in the seat. (5)
15. The _____ effect illusion occurs in rotor aircraft when hovering or in slow flight at low altitudes over water with minimal references. (9)
16. Any injury that requires hospitalization for more than 48 hours is termed as a _____ injury. (7)
17. Positional _____ may be a cause of death of the pilot in an accident where the aircraft comes to rest inverted with the pilot still strapped into his seat, with disruption of the canopy and the ground causing flexion of the pilot's neck. (8)

DOWN

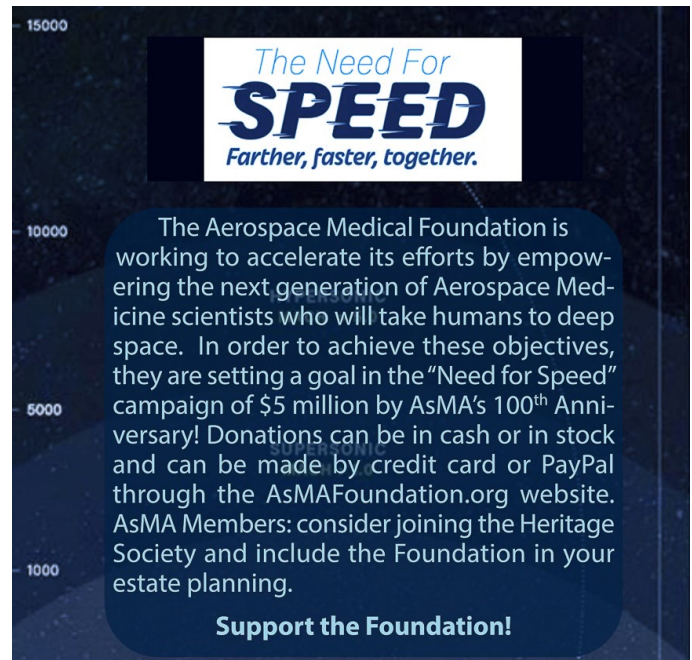
1. The three factors according to Haddon Matrix are Human, Vehicle and _____. (11)
2. An _____ is a 3-axis gimbal large enough to contain a human being, used for cardiovascular workout and equilibrium training in pilots and astronauts. (8)
3. As per ICAO standards the height of _____ is at 36089 feet. (10)
6. Roll-off-the-top manoeuvre is also called as _____ turn. (9)

See "Crossword", p. N74

From "Crossword", p. N73

7. Presence of pure _____ is consistent with ingestion of alcohol and generally rules out post-mortem production of alcohol. (7)
9. Positional alcohol _____, is thought to be due to the physical effect of alcohol on the labyrinth, and has possibly the potential to add to disorientation during degraded visual conditions. (9)
11. A negative result in the vitreous humour generally rules out presence of _____ alcohol levels helping in an aircraft accident investigation. (11)
12. Stroking seats allow the seats to stroke downward in a _____ impact thereby increasing the distance of deceleration and reduces G and the potentially injurious forces acting on the spine. (8)
13. Effects of -Gz effects includes persistent vertigo in a few aviators performing aerobatic manoeuvres. This persistent vertigo is also known as the _____. (8)

The solution can be found on p. N75.



The Need For SPEED
Farther, faster, together.

The Aerospace Medical Foundation is working to accelerate its efforts by empowering the next generation of Aerospace Medicine scientists who will take humans to deep space. In order to achieve these objectives, they are setting a goal in the "Need for Speed" campaign of \$5 million by AsMA's 100th Anniversary! Donations can be in cash or in stock and can be made by credit card or PayPal through the AsMAFoundation.org website. AsMA Members: consider joining the Heritage Society and include the Foundation in your estate planning.

Support the Foundation!

News of Corporate Members

Mayo Clinic Study Uncovers Genetic Cancer Risk

Current screening protocols fail to catch a notable number of people carrying genetic mutations associated with hereditary breast and ovarian cancer syndrome and Lynch syndrome, which increase the risk of developing certain cancers. This issue is particularly pronounced among underrepresented minorities. To study this, Mayo Clinic researchers sequenced the exomes—the protein-coding regions of genes—because this is where most disease-causing mutations are found. They identified 550 people, or 1.24%, as carriers of the hereditary mutations. Importantly, half of these people were previously unaware of their hereditary genetic risk and 40% did not meet existing clinical guidelines for genetic testing. This indicates that current national guidelines are missing people at high risk of cancer. The study also showed disparities in how under-represented minority participants met genetic screening guidelines compared to other groups. It indicated that existing guidelines introduce inadvertent biases affecting who qualifies for testing and receives coverage through health insurance.

—Please visit <https://newsnetwork.mayoclinic.org/discussion/mayo-clinic-study-uncovers-genetic-cancer-risks-in-550-patients/> to read more.

Leidos Awarded NASA Support Contract

Leidos was recently awarded a new contract to continue providing cargo mission engineering and integration services for NASA's International Space Station (ISS) Program and Artemis campaign. The award has a base period of performance of 2 years. Work will primarily be performed at Leidos' facilities in Webster, TX. Leidos will provide analytical and physical processing for NASA missions and perform engineering, maintenance, and operations support. Leidos will also develop, fabri-

cate, and certify hardware to support mission objectives as well as implement the space station and Artemis manifest requirements for launch, return, and disposal, and support logistical and integration functions to maintain adequate crew provisions and supplies to sustain human presence in space. Leidos has performed cargo mission support work for NASA since 2004, supporting over 160 ISS Visiting Vehicle Missions delivering over 310,000 pounds of cargo and science and over 85 ISS Return Vehicle Missions recovering and distributing over 115,000 pounds of science and cargo.

—Please visit <https://www.leidos.com/insights/leidos-awarded-476-million-nasa-cargo-mission-support-contract> to read more.

KBR Awarded Advisory Consulting Contract

KBR announced it has been awarded an advisory consulting contract by Kuwait Oil Company for the development of a country wide masterplan for the production of 17GW of renewables and 25GW of green hydrogen by 2050. Under the terms of the contract, KBR will provide advisory consulting services to develop a phased strategy for the deployment of significant wind and solar power, combined with power storage capability. The renewable power capability will be linked to the production of green hydrogen for internal industrial use, as well as for export purposes. This work is expected to be performed over the next 18 months, with KBR developing a market analysis, techno-commercial feasibility studies, as well training of Kuwaiti nationals.

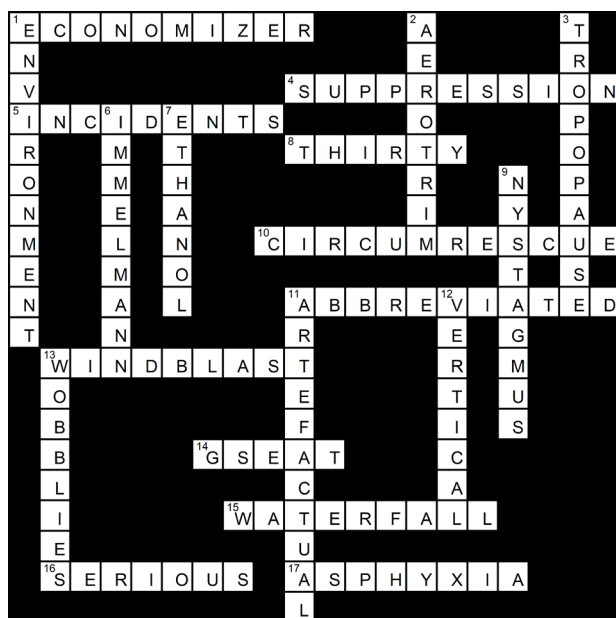
—Please visit <https://www.kbr.com/en/insights-news/press-release/kbr-awarded-advisory-consulting-contract-kuwait-oil-companys-renewables-and-hydrogen-masterplan-project> to read more.

Martin-Baker Celebrates the French Air & Space Force's 90th Anniversary

Martin-Baker is commemorating the 90th anniversary of the French Air and Space Force (Armée de l'Air et de l'Espace). France is the fourth-largest national operator of Martin-Baker ejection seats, flying the Pilatus PC-21 and Dassault Aviation Alphajet, Mirage 2000 and Rafale aircraft. In 1961, a Mirage aircraft crashed during its final approach to Istres. The pilot, equipped with a Mk4 seat, successfully ejected, marking the first French life saved by a Martin-Baker seat. To date, Martin-Baker seats have saved 383 French lives, with the most recent recorded ejection occurring in 2022. A joint venture between Martin-Baker and Safran assembles seats under license for more than 30 different air forces worldwide. The Argenteuil facility in Paris not only assembles seats but also offers spares, training, documentation and maintenance for over 1,600 seats in French aircraft globally.

—Please visit https://martin-baker.com/news_and_events/90-years-french-air-force/ to read more.

Crossword Solution



Want to see your company's news here?

Become a Corporate Member! Visit <https://www.asma.org/for-corporations/benefits-of-corporate-membership> for info.

Corporate News Bites

Axiom Space: Axiom Space has been featured in the newest episode of the documentary series Hard Reset. It covers how Axiom is leading the transformation of low-Earth orbit and pushing the boundaries of what is possible in space. It also explores the development and testing of Axiom's new space suit and takes a look at Axiom Station, which will replace the International Space Station. To watch the video, please visit <https://www.youtube.com/watch?v=UCYo3UuU-5TA>.

PharmaFlight: A delegation from the National Innovation Agency (NIÜ) visited PharmaFlight's innovation and knowledge center at the University of Debrecen. PharmaFlight's center there is the university's outsourced aeronautical engineering department. The delegation toured the center and learned about the educational and research activities taking place there. Please visit <https://www.pharmaflight.hu/egyetemi-innovacios-fejlesztések-a-latokorben> to read more and for photos.

Norwich University: Norwich received a grant from the National Science Foundation for cybersecurity research, education, and training. This funding will allow Norwich to offer scholarships to students for learning and research into cyber threats, artificial intelligence, and machine learning. Dr. Huw Read, Director of the Center for Cybersecurity and Forensics Education and Research, was interviewed by a local TV station about the grant. To watch the interview, please visit <https://www.wcax.com/video/2024/07/02/53m-grant-benefit-norwich-university-cybersecurity-program/>.

ALPA: The Airline Pilots Association (ALPA) has released a white paper on the push to reduce the number of pilots on the flight deck. Their concern is that reducing flight crew is an economic measure and compromises safety of flight. To read the full paper, please download the paper here: <https://www.alpa.org/-/media/ALPA/Files/pdfs/news-events/white-papers/white-paper-reduced-crew-operations.pdf?la=en>.

Meetings Calendar

Ongoing: HFACS Workshops; ONLINE. Workshops on the The Human Factors Analysis and Classification System (HFACS) are now available online as well as in person. For more information, please visit <https://www.enrole.com/erau/jsp/course.jsp?categoryId=&courseId=HFAC> for in-person and <https://www.enrole.com/erau/jsp/course.jsp?categoryId=558570F8&courseId=OHFA> for online.

Calls for Papers

Ongoing: International Astronautical Federation (IAF) Global Networking Forum Space Conversations Series; ONLINE, 14:00 Paris time. Please visit <https://www.iafastro.org/events/iaf-gnf-space-conversations-series/> for more info.