

## "Honoring the Past - Preparing for the Future"

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The Aerospace Medical Association's 2024 Annual Scientific Meeting will be held in Chicago, IL, USA. The year's theme is "Honoring the Past - Preparing for the Future." While this theme was created to reflect historic and future aspects of aviation, aerospace medicine, and human performance, it is especially poignant regarding what we are witnessing in the arena of spaceflight.

With the inception of the Artemis program, efforts have been underway to return humans to the Moon after more than 50 years. Throughout the Apollo, Skylab, Space Shuttle, International Space Station (ISS), and more recent commercial crew and private astronaut missions, substantial advances in technology have emerged, and a greater understanding of human physiology and performance has progressed through longer duration spaceflight. Lunar missions will inevitably entail combined governmental, commercial, and International Partner collaboration. Substantial challenges lie ahead in areas such as: extravehicular activity (EVA), radiation, environmental, habitation, and clinical and behavioral health.

In many ways it is almost unfathomable that humans have not set foot on the Moon since the end of the Apollo program in 1972. The world population when Neil Armstrong stepped on the Moon in 1969 was 3.6 billion and now it is over 8 billion. It is estimated that less than 20% of everyone on Earth today was alive when humans first reached the Moon 50 years ago. Some of our AsMA members will recall being in elementary and high school when classes would stop during an Apollo mission. Teachers would wheel a black and white television into classrooms and students were riveted watching the scenes unfolding of launches, lunar landings, spacewalks, and subsequent splashdowns. At a young age, many of us were very intrigued and captivated by science and space exploration. We all seemed to know a great deal about the individual astronauts flying those historic missions. Currently, few people truly know much about the seven crewmembers on the ISS now. Perhaps this a result of the remarkable achievement of nearly 23 years of continuous human presence on ISS, whereby regular launches into space have progressed to become more commonplace.

As suborbital and commercial spaceflight launch frequency and capabilities accelerate, the years ahead will truly open the aperture of opportunities for science and exploration, as well as allowing more individuals to experience spaceflight. The Artemis

initiative will hopefully re-ignite the magic of the Apollo years, reinforce the value of STEM to our youth, and highlight *the uniqueness of this overall epoch in history* marked by the first time a human stepped onto another celestial body in 1969. We can only imagine the incredible high-definition television and imagery we will witness forthcoming from the surface of the Moon compared to the Apollo era.

General, civil, and military aviation have also experienced significant advances over past decades. Human factors, safety, mental health, and environmental aspects merit continued vigilance. Expansion of unpiloted aerial vehicles and eventual transorbital flight provide unique challenges. Advanced telescopes are re-writing the Astronomy textbooks with the search for planetary locales potentially harboring the building blocks of life. Additionally, based on survey results of the recent Annual Scientific Meeting, the upcoming 94th meeting program will address categories of interest in aviation and aerospace medicine, human performance, aerospace physiology, aerospace nursing and transport medicine, AI, and human systems integration.

The six Apollo missions landing on the Moon were book-ended with two famous quotes: Neil Armstrong, as the first person to set foot on the Moon on July 20, 1969, stating, "That's one small step for man, one giant leap for mankind", and CAPT Gene Cernan, as the last human on the Moon, stating on December 14, 1972, "As we leave the Moon at Taurus-Littrow, we leave as we came and, God willing, we shall return, with peace and hope for all mankind." *Unquestionably, future words expressed by astronauts from the Moon will leave us inspired and grateful for what we as humans can achieve.*

Developing the next generation of scientists, engineers, researchers, explorers, and clinicians for the exciting years ahead requires our collective energies. Let us embrace the challenge of creating a wonderful 2024 Scientific Meeting.

All the best.

*Keep 'em flying...and Full Steam Ahead!*



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DOI: <https://doi.org/10.3357/AMHP.949PP.2023>

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