AASM PowerPoint Presentation Synopses and Speaker Bio

AASM 2019 and Beyond

The origin, structure, and purpose of the Armstrong Air & Space Museum is described in this presentation. A brief history of Armstrong and his career and achievements is included to provide an historical context, and several major artifacts are mentioned. The recent 50th Anniversary of Apollo 11 as well as plans for the near future are covered as well.

Apollo 11: Objectives and Achievements of the First Manned Lunar Landing

This presentation will offer a discussion of the background, the crew, the major phases of the flight, and operational details of the historic Apollo 11 mission. The components of the mighty Saturn V rocket, the Command and Service Module and the Lunar Module will be described. Many photos and diagrams are included to help the audience understand the amazing aspects of getting to the Moon and back.

Apollo Lunar Rover

This presentation will offer a discussion of the origins of the lunar vehicle concept, describe the design and major components of the lunar rover vehicle, and relate the operational details of each of the 'J' missions (Apollo 15, 16, and 17) and how the rovers greatly increased the astronauts' capacity to explore lunar surface features and collect samples.

Cold War – Space Race

The Cold War, that period of uneasy coexistence between the U.S.S.R. and the United States and its allies following WWII, was the underlying motivation for the space race. This presentation includes a brief explanation of the origins of the space race and follows the major players, highlighting the contributions of Ohioans in the competition to place human beings into orbit and ultimately get to the Moon.

Fundamentals of Rocket Propulsion

The basic concepts underlying rocket propulsion will be explained and simple mathematical equations will be introduced in order to illustrate how to calculate the thrust of a rocket engine and how to calculate the velocity necessary to place a spacecraft into Earth orbit.

Fundamentals of Special Relativity

Einstein's theory of Special Relativity is surrounded by misconceptions, and some of them are addressed by this presentation. Contrary to popular belief, the essential concepts of the theory can be grasped by most people with an understanding of high school algebra. Unintuitive yet fascinating notions such as time dilation, mass increase, and the summing of relativistic velocities will be discussed.

Gemini Spacecraft

This presentation begins by offering a brief comparison and contrast between the Gemini spacecraft and its predecessor the Mercury. A discussion of the structure of the spacecraft and the location and functioning of some of the major systems and components will be included.

Mars Trek: The Next Frontier

The planet Mars is currently a subject of intense interest. This presentation will explore that planet figuratively as it addresses the physical characteristics, climate, and terrain of Mars, as well as the challenges of traveling to that far-off planet and surviving there.

Moon Landing Hoax

Ironically, at a time when more information is available to the average human than ever before, a growing number of people (especially younger people) believe that the United States never landed on the Moon. This presentation evaluates some of the popular claims against the lunar landings and provides convincing support for the official account.

Neil Armstrong

Neil Armstrong, the first human being to step foot on the Moon, is often portrayed as an unemotional, steely-eyed spacecraft commander. This presentation offers a brief description of Armstrong's youth, his Navy service, experimental test pilot career and achievements as an astronaut. His life post-Apollo will also be examined, hopefully resulting in a more three-dimensional impression of the man.

Neil's Wild Ride: the Flight of Gemini VIII

Neil Armstrong's first space flight, Gemini VIII, was an historic achievement, resulting in the first docking, or physical connection, between two spacecraft in orbit. This presentation provides an in-depth description of that mission and the crisis that occurred after docking. Despite having to cut their mission short, Armstrong and his pilot David Scott remained cool and composed, regaining control of their spinning spacecraft and demonstrating their competence; both later walked on the Moon.

Ohio's Place in Space

A surprising number of Ohio institutions, industries, and people contributed materially to the space program during Project Mercury, Gemini, and Apollo. Although this presentation will not offer a comprehensive treatment of the subject, it will discuss a number of those contributors as a way of paying tribute to their ingenuity, determination, and dedication.

Project Apollo Lunar Missions

Although a total of nine Apollo missions traveled to the Moon and back, only seven were scheduled to land. Six missions (Apollo 11 – 12, 14 – 17) actually performed a lunar landing. This presentation will describe the objectives, crews, and some of the major operational details of each of those missions

Project Apollo

The most audacious enterprise ever attempted by human beings to the present day, Project Apollo involved the creation of the most powerful machine ever built and flown at that time, the Saturn V rocket, and it required the cooperation of over 400,000 people across the country to make it a success. This presentation will discuss the eleven manned Apollo missions, their objectives, crews, and operational details.

Project Gemini

In order to accomplish a lunar landing and a safe return, a bridge of new knowledge, skills, and methodologies would need to be constructed between Project Mercury and Project Apollo. NASA therefore created Project Gemini, which served as the 'classroom' of low-Earth orbit, in which ten manned missions learned how to fly, work, maneuver, and survive in space. This presentation offers a description of the objectives, crews, and some of the operational details of those critical manned missions.

Project Mercury

When the Soviet Union placed the first man-made satellite, Sputnik I, into Earth orbit in 1957, the entire western world was caught off guard; the United States, considered to be the most advanced nation on Earth at the time, had been beaten into space. President Eisenhower's administration moved quickly to counter the Soviet achievement and eight months later NASA was created. In October of 1958 America's first manned space program, Project Mercury, was initiated. Seven astronauts were selected, and during the period between May 1961 and May 1963 six manned flights took place. This presentation discusses the objectives, the crews, and some of the major operational details of those pioneering first missions.

Uncovering First Man

First Man, Dr. James Hansen's excellent authorized biography of Neil A. Armstrong, was the basis for the feature film released in 2018. This presentation describes the film and provides a contrast and comparison between the book and the film. The Armstrong Air & Space Museum's involvement in the making of the film is also examined.

Fundamentals of Special Relativity

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Speaker Bio

Greg Brown is the Experience Coordinator at the Armstrong Air & Space Museum in Wapakoneta, OH. His duties include public speaking, research, work in collections / artifacts, and volunteer training and coordination. He served on active duty with the USAF (Missile Security Specialist) and the US Army (Military Police Corps). He has a BA in History.