**Minutes**

**Alabama Space Authority**

**Meeting  
  
September 28, 2021**

Auburn University – Auburn

**Call to Order:**   
10:15 A.M.  
  
**Welcome and Remarks**

Chairman Livingston called the meeting to order.

**Roll Call**

Present: 8  
Dr. Dale Thomas (joined via phone)  
Dr. William T. Hutto

Maureen Neighbors

Frank Farmer

Major General (Ret.) Tim Crosby (joined virtually)

Luther Roberts, Jr.

Senator Steve Livingston, Chair

Senator Tom Whatley, Vice Chair

Visitors:8

C J Hincy

Robert La Branche

Chris Crumbly

Dr. Brian Thurow

Brian Matisak

Shonda Gray

Kimberly Robinson (joined virtually)

Naveen Vetcha (joined virtually)

**Reports and Presentations**

**Presentation by Brian Matisak, Block 1 Deputy Manager, Systems Engineering and Integration Office, NASA.** Mr. Matisak gave a PowerPoint Presentation on the Artemis I Launch. Orion is the only spacecraft capable of carrying and sustaining crews in deep space. The Space Launch System (SLS) is the only rocket capable of sending crews into deep space. The SLS is the foundational asset for America’s space program and a key component for deep space architecture to journeys to destinations like Mars and beyond. The SLS offers reduced transit times to outer solar systems. Using traditional rocket technology, it would take seven – eight years. Using the SLS, it only takes two – three years. The SLS allows for reduced complexity and risk.

The presentation is attached.

**Discussion:**

Questions were raised about the cost of going to the moon. Mr. La Branche stated that it costs approximately $300 million to keep a space station in orbit. Mr. Matisak stated that from FY2012 – FY2021, Congress has appropriated $19.6 billion for SLS and $9.1 billion for Artemis I. Mr. Matisak also stated that the launch is targeted to take place at the end of 2021 but it could take place later.

**Presentation by Chris Crumbly, Executive Director, Institute for Digital Enterprise Advancement (IDEA).** Mr. Crumbly gave a PowerPoint Presentation on System Engineering Technology (SET). Technology development takes a long time. One way the U.S. government is looking to accelerate research and development to bring new assets online in space or in the aeronautics industry is Model Based System Engineering (MBSE). MSBE has not been well adopted yet because there is not enough supply of competent systems engineering that understand MBSE. SET was developed to help meet that demand. SET is a five-year plan to introduce a pathfinder curriculum and expand it. IDEA, a nonprofit organization, was created to introduce the concept to colleges and universities. The vision of IDEA is to be a national collaborative center to identify, share, and recommend Digital Engineering and Manufacturing best practices and applications in the workforce. An internship program will begin in May 2022. The program is being expanded to a two-year engineering associate degree program. Plans are currently being developed for an apprenticeship program.

The presentation is attached.

**Questions:**

No questions.

**Presentation by Dr. Brian Thurow, Department Chair, Aerospace Engineering, Auburn University.** Dr. Thurow gave a PowerPoint Presentation which included an overview of the academic engineering programs at Auburn University. Their programs emphasize student participation in projects to gain hands-on experience. The engineering program is multi-disciplinary, spanning across several University programs. A tour of the College of Engineering laboratories followed.

The presentation is attached.

**Questions:**

No questions.

**Minutes**

Motion to approve by Senator Whatley.

Vote called – unanimous.

**Next Meeting**The next meeting is tentatively scheduled for Tuesday, January 11, 2022. The time and location will be determined later.

**Adjourn**11:51 A.M.