STENNIS SPACE CENTER Profiles in Leadership



Growing up on a farm in the hills of central Mississippi, Duane Armstrong never thought working for NASA would be possible. As a young person, the Carmack, Mississippi, native had never even met an engineer. In the classroom, however, Armstrong excelled in math and science and had a strong interest in technology. Taking a leap of faith, Armstrong majored in electrical engineering at Mississippi State University, graduating magna cum laude in 1990. Today, Armstrong serves as manager of the new **Stennis Strategic Business** Development Office, established in August 2021. He also serves on the NASA Science Council and as the Stennis lead for digital transformation. Armstrong's career spans hands-on engineering in design and development of spaceflight systems, research and development of advanced technologies, management of engineering and applied science programs, forging partnerships with industry, and the transformation of NASA processes and capabilities.

Did you envision working for NASA?

Growing up, I did not know Stennis existed, and when NASA was in the news, it involved locations across the country that seemed distant and exotic. However, I vividly remember seeing the first images of a volcanic plume on (Jovian moon) lo during the Voyager 1 flyby of Jupiter. The images from Voyager's exploration of the outer planets were awe-inspiring and awakened my interest in NASA.

What are some important lessons you have learned?

The most formative years of my career were shaped by a fierce competition for funding. The lessons I learned then are especially important as NASA changes the way it will conduct Artemis and future exploration missions:

1) NASA is part of the aerospace industry, and the competition for resources is intense.

2) Never stop learning. Never be content with the status quo. As soon as you stop getting better, your competition gains ground.

3) NASA can be as great as the people at NASA want it to be.

4) Work on things that matter to you. The enthusiasm you have for your job will make it easier to stay at the top of your game, and it will enhance other parts of your life.

How would you characterize the Stennis workforce and culture?

Stennis has smart people and a can-do attitude that can help NASA make Artemis successful. As NASA changes the way it conducts missions and purchases more services from industry, the Stennis workforce will adapt to provide 1) ever-evolving technical expertise that companies need to provide services to NASA and 2) affordable, responsive services at the pace of business. These adaptations will provide new opportunities for current employees and a broader range of career options to attract new talent.



Duane Armstrong Manager Strategic Business Development Office

How do you define a leader?

Leaders create a vision of the future that makes their organizations better, then turn that vision into reality.

What was your biggest career challenge thus far?

Very early in my career, I served as the project engineer on my first spaceflight project. We had four months to design, build, test, and deliver an entire science instrument and essential ground support equipment to map orbital and micrometeoroid debris. The entire instrument, even the glue to attach the sensors, had to weigh less than one pound and operate on less than 30 milliwatts. I had an experienced management team to help plan and track the project, and a quirky, but highly capable, engineering team. We were a small, agile, tight-knit, dedicated team that performed multiple miracles. The Orbital Micrometeoroid and Debris Counter was launched by the Department of Defense as part of the Clementine mission and mapped orbital debris and micrometeoroids from low-Earth orbit to roughly halfway to the Moon.

What advice do you have for an aspiring leader?

Never be content with the status quo. Strive to improve yourself and your organization. As soon as you get comfortable with the way things are, you stop trying to improve. After that, you become outdated, uncompetitive, and irrelevant. Do you have advice for those who aspire to a NASA career?

Go for it! Get your foot in the door, and see if NASA is the right fit for you. NASA offers internships for students in many disciplines, not just technical careers. You never know what doors may open.