

Tawnya Laughinghouse

Director, Materials and Processes Laboratory

Engineering Directorate

NASA Marshall Space Flight Center, Huntsville, AL



Tawnya Laughinghouse was appointed July 2024 to the Senior Executive Service position of director of the Materials and Processes Laboratory within the Engineering directorate at Marshall Space Flight Center. Ms. Laughinghouse previously served in the role of Program Manager for Technology Demonstration Missions within NASA's Space Technology Mission Directorate (STMD). During this role for STMD, Laughinghouse, a federally certified senior/expert program and project manager, was responsible for expanding the boundaries of the aerospace enterprise and led the TDM program with the launch of 10 advanced technologies to space between 2018 and 2024. She began her career at NASA's Marshall Space Flight Center in Huntsville, Alabama, in 2004 as a materials engineer supporting the Space Shuttle Reusable Solid Rocket Motor. Throughout her almost 21-year NASA career, Laughinghouse has enjoyed working in various capacities: Lead materials engineer for the Booster Separation Motor aft closure assembly; Lead of the Ceramics and Ablatives/High Temperature Materials Team; Acting Assistant Branch Chief for the Space Environmental Effects Branch, Acting Chief of the Nonmetallic Materials Branch, and Deputy Manager for the Technology Demonstration Missions program.

On a daily basis, Laughinghouse leads the Laboratory in providing research, technology, testing and engineering support for metallic and nonmetallic materials, processes, and products that enable space exploration and NASA human spaceflight programs. Ms. Laughinghouse oversees an annual budget of \$86 million and manages a highly technical workforce of approximately 340 civil service and contractor science and engineering experts, as well as several research and development efforts in world-class facilities, including the National Center for Advanced Manufacturing.

Laughinghouse is a graduate of several NASA and DOD leadership programs, including NASA Foundations of Influence, Relationships, Success and Teamwork (FIRST), US Army AMCOM Leader Investment for Tomorrow (LIFT), and NASA Mid-Level Leadership Program (MLLP). She is a May 2024 graduate of Leadership Greater Huntsville's Connect-26 Class.

A former NASA WISE collegiate scholar, Laughinghouse holds undergraduate degrees in Chemistry and Chemical Engineering from Spelman College and the Georgia Institute of Technology, respectively, and a master's degree in management (with a concentration in management of technology) from the University of Alabama in Huntsville. She has been recognized extensively in the community for mentoring and STEM advocacy. Laughinghouse has been awarded the NASA Exceptional Achievement Medal, the NASA Exceptional Service Medal, and a host of group achievement and external awards, including the distinguished Merit Award from the National Alumnae Association of Spelman College.

Born in Columbus, Ohio, Tawnya was raised in Huntsville, Alabama, and graduated salutatorian of her class at Sparkman High School in Toney, Ala. Tawnya and her husband are the proud parents of two teenage children.