

05422 666375 Job Title: R&D S&E, Aeronautical Engineer (Early/Mid-Career)

Job ID: 666375

What Your Job Will Be Like

Are you passionate about your work and dream of utilizing state-of-the-art facilities to explore solutions? Do you want to join a diverse team that solves challenging issues of national interest?

Sandia National Laboratories' Aerospace Systems Analysis Department is seeking highly qualified Aerospace Engineers to explore and develop new and existing flight system concepts. You may be called to draw upon their experience, knowledge, and interest in applied aerodynamics, flight mechanics, and flight system design to:

- You will work as a member of high performing, passionate, multi-disciplinary teams
- Support the design, development, and flight test of advanced aerospace flight systems including advanced hypersonic flight vehicles, reentry bodies, and rocket systems
- Develop multi-fidelity aerodynamic and flight performance models using analytic/computational aerodynamic methods/tools and wind tunnel testing
- Create and optimize 3DOF/6DOF trajectory simulations of complex multi-body flight systems for performance analysis and mission requirement verification/development
- Create system models for conceptual design trade space analysis
- Develop and use multi-disciplinary design and optimization methods and tools
- Develop algorithms for rapid mission planning and trajectory optimization
- Conduct flight safety analysis and support flight test operations at launch sites and remote ranges

Qualifications We Require

- You have a Bachelor of Science (B.S.) and advanced degrees (M.S. or Ph.D.) in Aerospace/Aeronautical Engineering, Mechanical Engineering, Electrical Engineering, or related STEM discipline; or B.S. degree in Aerospace/Aeronautical Engineering, Mechanical Engineering, Electrical Engineering, or related STEM discipline plus four (4) years of relevant experience.
- Your background includes knowledge of aerodynamics and application to the design, modeling, simulation, optimization, and analysis of aerospace flight systems.
- Ability to obtain and maintain an active DOE Q-level clearance.

Qualifications We Desire

Ideally, we would like to see your background include some of the following:

- Demonstrated verbal and written communication/presentation skills.
- Ability to collaborate and contribute as a member of multi-disciplinary team.
- Experience with aerodynamic prediction software/tools and/or computational fluid dynamics.

- Experience in developing and deploying multi-fidelity aerodynamic and flight performance models in multi-disciplinary design, optimization, and 3DOF/6DOF trajectory simulation environments.
- Experience with the capabilities, use, and application of MATLAB®, Simulink®, Python™, C/C++, or other modern programming languages.
- Currently possess an active DOE or DoD clearance.

About Our Team

The Aerospace Systems Analysis Department provides expertise and technical leadership in the areas of:

- multi-fidelity applied aerodynamics,
- flight dynamics analysis,
- trajectory simulation/optimization,
- multi-body dynamics analysis design,
- flight safety analysis, and
- range operations support.

These disciplines are applied to a wide range of flight systems operating from subsonic through hypersonic flight regimes. The Aerospace Systems Analysis Department actively explores and develops advanced flight system concepts leading to next-generation design, development, and flight test demonstration of pathfinder hypersonic technologies, launch vehicles, and reentry flight systems.

Staff members are integral flight test project team members; active in all aspects of vehicle design, mission planning, flight test execution, and post-test analysis. We routinely support rocket launch and flight test operations at Sandia's Kauai Test Facility and other national test ranges. We provide technical excellence in aerospace design and concept application for U.S. Department of Energy defense programs and flight system projects funded through the U.S. Department of Defense, Missile Defense Agency, DARPA, NASA, and industry partners.

Examples of Sandia's rocket and flight system programs include:

High Operational Tempo Sounding Rocket Program: https://youtu.be/fa_AtKtidjw

"It Really Is Rocket Science!": <https://youtu.be/koQfwHgOuMo>

About Sandia

Sandia National Laboratories is the nation's premier science and engineering lab for national security and technology innovation, with teams of specialists focused on cutting-edge work in a broad array of areas. Some of the main reasons we love our jobs:

- Challenging work with amazing impact that contributes to security, peace, and freedom worldwide
- Extraordinary co-workers
- Some of the best tools, equipment, and research facilities in the world
- Career advancement and enrichment opportunities
- Flexible schedules, generous vacations, strong medical and other benefits, competitive 401k, learning opportunities, relocation assistance and amenities aimed at creating a solid work/life balance*

World-changing technologies. Life-changing careers. Learn more about Sandia at:

<http://www.sandia.gov> *These benefits vary by job classification.

Security Clearance

Position requires a Department of Energy (DOE) Q-level security clearance to start.

Position requires an active Department of Energy (DOE) Q-level security clearance or active clearance with another U.S. government agency (e.g., DOD) to be considered for this position.

Sandia is required by DOE directive to conduct a pre-employment drug test and background review that includes checks of personal references, credit, law enforcement records, and employment/education verifications. Applicants for employment must be able to maintain a DOE Q-level security clearance, which requires U.S. citizenship. If you hold more than one citizenship (i.e., of the U.S. and another country), your ability to obtain a security clearance may be impacted.

Applicants offered employment with Sandia are subject to a federal background investigation to meet the requirements for access to classified information or matter if the duties of the position require a DOE security clearance. Substance abuse or illegal drug use, falsification of information, criminal activity, serious misconduct or other indicators of untrustworthiness can cause a clearance to be denied or terminated by DOE, resulting in the inability to perform the duties assigned and subsequent termination of employment.

EEO

All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, or veteran status.