

MICHAEL J. DAYTON

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OBJECTIVE: Continue a career as a Mechanical Engineer with an emphasis in design, project management and technical direction.

EDUCATION: Bachelor of Science Degree in Mechanical Engineering - Tennessee Technological University - Cookeville, Tennessee. December 1986.

EXPERIENCE:

UT-Battelle, Oak Ridge National Laboratory – Spallation Neutron Source

(February 2008 to present)

Target & Mechanical Systems Section Head (October 2020-present):

Responsible for leading a diverse group of engineers, technicians and operations personnel responsible for the design, maintenance and operation of SNS cooling, target and vacuum systems. Responsible for all phases of section leadership including defining and implementing goals and objectives along with budget development and tracking.

Source Development and Engineering Group Leader (August 2019-September 2020):

Responsible for directing a diverse group of scientists, engineers and technicians to develop and implement engineering solutions that ensure reliable, high-performance operation of SNS target systems. Responsible for group budget development and tracking. Utilized a design-centered method of ensuring priorities and resources are aligned to meet mission objectives. Focused on maintaining group culture and cohesion while actively and positively engaging personnel to meet the challenging demands of reliable target systems design and operation.

Target Systems Team Lead (June 2017-March 2020)

Responsible for directing a focused team of scientists, engineers and designers to develop and implement engineering solutions for SNS target systems equipment. This team maintains design cognizance for all target systems (e.g. core vessel systems, reflector systems, shutter systems, cryogenic moderator systems). Developed management plans and strategies to ensure reliable, high-performance operation for these systems. Efforts focused on development and implementation of processes and procedures and team building/culture.

Remote Handling Engineer (2008-2019): Responsible for the design, testing and operational utilization of tooling required for the remote replacement of activated components. Duties associated with this position also entail the coordination of all activities and personnel associated with the preparation of components prior to installation and testing of components following installation to ensure operational requirement compliance. Significant activities include target, proton beam window, inner reflector plug, shutter plug and core vessel insert

replacements. Associated with this role has also been accepting design responsibilities for all existing tooling and equipment along with many remote handling facility systems. Additional responsibilities include technical oversight for target and proton beam window post-irradiation examination activities.

Systems Engineering (2008-present): Responsibilities include provide system engineering support to operations for the Core Vessel and Shutter Systems by serving as Credited Engineering Control system engineer. Responsibilities include system design maintenance, component procurement and engineering support to operations personnel to ensure proper system operation. Provided technical support and troubleshooting on a variety of system failures and operational issues. Represented NTD on the Accelerator Configuration Control and Work Control Committees.

Boeing - Huntsville Division, Huntsville, Alabama

(May 1989 to January 2008)

Engineer/Scientist – Level 05

High Energy Laser Technology Demonstrator Program: Served as lead mechanical engineer on the vehicle integrated product team. Developed trade studies to evaluate candidate vehicles and containers to support the program. Responsibilities also included support to turret retraction system design and integration. Efforts during preliminary design phase led to successful award of the contract.

Aegis Ballistic Missile Defense (ABMD) Program: Served as the lead mechanical engineer for production transition activities of the ABMD Ejector from Pratt & Whitney to Boeing. Designed and developed innovative mechanical hardware required to support integration and acceptance testing of the ABMD Ejector.

Avenger Program: Provided a variety of mechanical engineering support to design and production activities including problem resolution and production support. Served as the lead project engineer on the development and qualification of the new FLIR Monitor as well as being responsible for the mechanical design.

SLAMRAAM Program: Provided support to this program during fabrication and integration activities. Acted as a liaison engineer between Boeing-HSV and outside vendors to resolve issues found during fabrication of hardware. Supported integration by creation of integration procedures for complex assemblies, resolved nonconformances and worked to ensure engineering documentation was accurate during prototype development. Became the lead mechanical engineer on the program.

Advanced Tactical Laser Program: Responsible for overall design, integration and testing of the Mechanical Retraction System to deploy and retract a laser turret from a C-130 aircraft. Developed design solutions and functioned as a lead with oversight of the detailed design and analysis along with completing detailed design of several components. Developed creative design solutions that added redundancy and safety to this critical system. Developed integration and test procedures and acted as task leader on integration and testing activities.

Ground-based Missile Defense (GMD): Performed design engineering duties on a variety of tooling for the GMD program. Developed the integration concept and designed all tooling required to perform Payload Avionics Module integration. Developed integration procedures and supported handling operations.

Spacelab/Payload Carriers Program: Primary duties included functioning as the lead design engineer on a variety of Mechanical Ground Support Equipment (MGSE) and flight hardware projects for the Spacelab program in addition to flight hardware projects for the International Space Station program. Was instrumental in the conceptual development and served as lead design engineer on the Lightweight MPES Carrier project. These tasks involved performing all project management functions for each project. Served as lead mechanical design engineer for Spacelab MGSE supporting payload processing at Kennedy Space Center. Performed a variety of specialized tasks including serving as task leader for Spacelab handling operations.

Tennessee Valley Authority, Browns Ferry Nuclear Plant, Decatur, Alabama.

(February 1987 to May 1989)

Mechanical Engineer

Performed field walk downs of plant process drawings for the purpose of configuration control. Was responsible for a 25% reduction in drawing discrepancies. Prepared engineering procurement packages, which included the specification of requirements and development of test procedures for the procurement of nuclear grade materials and equipment.

CAPABILITIES:

- Experienced in all phases of project management
- Experienced in mechanical design
- Remote handling tooling design experience
- Flight/ground/tooling hardware design experience
- Experienced in the design/use of handling/rigging equipment
- Excellent written/oral communications skills
- Experienced in Unigraphics Computer Aided Design
- Experienced in Creo Computer Aided Design
- Experienced in technical presentations/proposal writing
- Working knowledge of ANSI Y14.5M-1982, Geometric Dimensioning and Tolerancing

REFERENCES: Available on request