ADVANCING TECHNOLOGY • ADVANCING HUMANITY

## SYSTEMS ENGINEERING ENGINEERING & TRADE STUDIES

## **KEY CAPABILITIES**

**CURATED TECHNOLOGIES** 

**Feasibility Studies** • Technology Readiness Level Assessment • Technical Dependency Identification and Evaluation • Level of Effort Estimation • Risk Mitigation Planning

**Trade Studies** • Trade Space Definition • Driving Requirements Analysis • Evaluation Criteria Definition • Analysis of Alternatives • Cost and Risk Assessment • Technical Tradeoff Analysis • Quantitative and Qualitative Scoring • Ranking and Sensitivity Analysis

**Decision Support** • Market Capability Surveys • Commercial Product and Vendor Assessment • Make/Buy Analysis • Proposal Evaluation Support Programs in every phase of the system lifecycle, from formulation to decommissioning, require robust engineering analysis and assessment to support decision-making and enable successful realization of program objectives. Kurtek provides a portfolio of engineering and trade study support services that combines proven methodologies, integrated multidisciplinary teams, and wideranging domain expertise to determine optimal technical solutions and support agencies in system acquisition, implementation, and evolution.

Kurtek staff utilize systematic processes to define study dependencies and constraints, trade spaces and potential implementation options, and

quantitative and qualitative evaluation criteria; identify, assess, and compare options; analyze and document strengths, weaknesses, and tradeoffs; and determine optimal solutions based on factors such as cost, risk, performance, reliability, and feasibility. We leverage formal engineering analysis frameworks,

such as DoDI 5000.84 and NPR 7123.1, while tailoring study processes to meet agency and program requirements and unique customer objectives.

Working with Kurtek gives you access to a proven combination of experience and expertise from across the global space industry. Our engineers have contributed to the design of numerous flagship space and ground systems, and their comprehensive knowledge, mission experience, and specialized skillsets enable us to deliver an effective solution for your unique needs.

## **REPRESENTATIVE PROGRAMS**

- Conducted an analysis of alternatives across numerous government and commercial mission service management, network monitoring and control, and mission service execution solutions to enable key architecture decisions for NASA's Near Space Network.
- Identified potential approaches to consolidating NASA network operations and sustainment capabilities and assessed their technical impacts, cost and risk profiles, and implementation feasibility.

To learn more about our capabilities, email us at info@kurtek.io or call our team at 703-943-7236.