Clients trust Noblis to design, justify, conduct, and manage innovative research programs aimed at improving modeling methods and putting them to practice across aviation and surface transportation domains.

Our experts assess alternatives, estimate benefits, and engage stakeholders for systems of varying sizes and complexity. Our suite of innovative modeling and simulation capabilities inform decision making at tactical and strategic levels.

OUR PROCESS

Complex systems are analyzed and understood using realistic, forward-looking, and cost-effective models.

1. DEFINE SCOPE
   - Identify key objectives
   - Select right-size tools
   - Design experiments

2. BUILD MODEL
   - Gather operations data
   - Construct and calibrate
   - Represent alternatives

3. VALIDATE SCENARIOS
   - Review with operators
   - Fine tune model behavior
   - Run and analyze scenarios

4. DELIVER FINDINGS
   - Craft results storyline
   - Illustrate key findings
   - Advise decision makers

For Informed Decision Making

noblis.org
From simulating traffic operations across the Seattle regional highway and arterial network to aircraft and airspace operations at John F. Kennedy International airport, Noblis goes beyond providing model outputs—we ensure that the analyses and outcomes are clear, understandable, visually compelling, and actionable for practitioners and decision makers.

**BRINGING STATE-OF-THE-ART ANALYSIS**

Federal Aviation Administration’s (FAA’s) NextGen programs promise to revolutionize air traffic and airport operations. To help the FAA and airline operators understand how new capabilities will improve system efficiency and capacity, Noblis developed simulation models of U.S. airports and airspace. Results from simulation of new capabilities quantitatively and visually captured impacts and informed NextGen program investments.

**Evolving Air Space Systems — FAA NextGen Programs**

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**Bringing Thought Leadership — FHWA NGSIM Program**

Noblis brought thought leadership to the Federal Highway Administration Next Generation Simulation (NGSIM) program by redefining public and private roles and providing technical insight to improve the state of the practice in traffic modeling. From program conception through execution, Noblis served as the steward of intellectual capital, maximizing investment impact. Noting NGSIM success, the European Union has launched a similar effort.

Noblis is a nonprofit science, technology, and strategy organization that brings the best of scientific thought, management, and engineering expertise in an environment of independence and objectivity. We work with a wide range of government and industry clients in the areas of national security and intelligence, transportation, health innovation, enterprise engineering, and environmental sustainability.