



University of Dayton  
Research Institute



# SUPPORT EQUIPMENT & VEHICLES

Leveraging UDRI's 60+ years of innovative client support to solve today's most challenging specialty equipment and vehicle problems

## YOU HAVE CHALLENGES

- Extending the life of aging equipment
- Defining future needs and requirements
- Finding or re-engineering obsolete parts
- Verifying and improving current equipment performance
- Designing new equipment and upgrades for extended life-cycles

## WE HAVE SOLUTIONS

- Technology refresh and obsolescence mitigation
- Market research, voice of customer surveys, and equipment analysis to develop a specification that meets your needs
- Developing, designing, and implementing tests for unique equipment and service environments both in the lab and in the field
- Life cycle management mindset



## WE HAVE RESOURCES

- Dedicated team of engineers, project managers, and scientists with proven industry and DoD experience
- 60+ years of innovative client support
- Specialists within UDRI and the University of Dayton provide a wide range of expertise
- Proven agile, responsive, and rapid solutions



## TYPICAL PROJECTS

- Product testing and design improvement
- Specification development and revision
- Parts trees and technical data package creation
- Corrosion prevention and control procedures
- Damage tolerance and repair reports
- Reverse engineering and supply chain analysis of obsolescence parts
- Fuels analysis and refinement

## EQUIPMENT EXPERIENCE

- Trailers and munitions handling units
- Lifts, jacks, and stands
- Tugs, loaders, and towbars
- Equipment of all shapes and sizes



## CROSS-FUNCTIONAL SUPPORT

A partnership with UDRI leverages the power of the enterprise to your project or organization. UDRI has experts across a wide range of technologies collaborate to meet your needs.

## TEST FACILITIES & EQUIPMENT

- Over 218,000 sq. ft. of facilities
- Up to 45 ft. of indoor lab height
- Large T-slot bed plates for unique test configurations
- Test frames ranging from 5 to 550 kip
- Temperature and humidity control chambers
- UV exposure chambers
- Weathering and artificial aging equipment
- Polymer, metal, and other media additive manufacturing machines
- Explosion-proof ovens for elevated temperature analysis of volatile materials
- Impact testing facilities ranging from 10 to 33,000 ft/s



## OTHER UDRI CAPABILITIES

- Technology transition support
- Cost benefit analysis
- Rapid prototyping and fabrication
- Finite element analysis
- Fatigue analysis
- Fuels analysis and refinement
- ASTM standard and non-standard testing
- DoD and industry partnerships
- Training material development
- Classified program support
- GSA contracting solutions
- ISO-17025 certification

