



VIRGINIA LOGISTICS RESEARCH CENTER

A COMMONWEALTH CENTER FOR APPLIED LOGISTICS SYSTEMS



Value Proposition

Shared resources

- Facilities
- Research staff
- Research equipment

Industry/university collaboration

- Industry directed and university executed
- Access to world class universities

Unique intellectual property policy

- Member owned Directed Research
- Member shared Generic Research

Workforce training and development

- Graduates with industry relevant experience
- Students work on industrial scale equipment

Applied research focus

- Understanding of fundamentals
- Solution of industry problems
- Transfer of technology
- Bridging the gap



For further information about the VLRC, contact:
 Virginia Logistics Research Center - A Commonwealth
 Center for Applied Logistics Systems, at 804-861-1666
 or visit its web site at www.craterpdc.org/vlrc

VLRC



Research & Development

ECONOMIC DEVELOPMENT

Commercialization
of New Technology

WORKFORCE
DEVELOPMENT



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 A Commonwealth Center for Applied Logistics Systems



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MISSION

The VLRC mission is to create transformational improvements in the quality and cost of logistics systems to solve practical problems for industry and government. The VLRC provides a bridge over the well known gap between fundamental research and commercialization by creating a pipeline of new technologies, and the corresponding educated workforce flowing from universities through the VLRC and into commercial practice for the betterment of society.

The VLRC will be a global center of excellence in logistics research and applications. It will be the cornerstone of a Logistics Innovation Zone that will make the Central Virginia Area the preferred location for companies providing logistics solutions. The confluence of defense logistics operations, university assets, commercial logistics solution providers, and the VLRC will make the Central Virginia Area the nexus of logistics activities.

The Crater Region is in the process of establishing the Virginia Logistics Research Center (VLRC), A Commonwealth Center for Applied Logistics Systems. The VLRC is being established to provide industry with transformational improvements in the design and analysis of logistics systems for government, commercial, consumer, and emergency applications. The VLRC will be located in a specially designed facility near Richmond, VA, USA and will develop solutions that significantly improve the ability to move goods and services from the point of creation to the point of consumption.

The research focus of the VLRC will be on the integrated logistics system and its economic cost and dependability. The underlying technologies that will be used and developed to support the VLRC research focus include modeling and simulation and global public policies and practices.

A unique feature of the VLRC is the collaborative research environment designed to accelerate the transition of technologies from creation to product implementation. VLRC members will include industrial manufacturers, transportation companies, and suppliers as well as service providers from government, commercial, consumer, and emergency applications.



VISION • STRATEGY • PLANNING

The VLRC research program is focused on three main objectives:

- * Create new solutions to logistics problems for a variety of customers including military, government, commercial, and consumer.
- * Translate those new solutions into commercial practice that solves the real needs of the logistics industry in practical ways.
- * Focus on the logistics system with an emphasis on the word "system" and understanding the complexity of the integrated system.

The VLRC will use the capabilities of the universities to provide for a fundamental understanding of the basic principles needed to solve the industry's problems.

Applied Research Primary Themes

- Dependable Logistics Systems**
 - * Performance
 - * Security
 - * Maintainability
 - * Safety
 - * Reliability
 - * Risk mitigation
- Global Economics**
 - * Cost
 - * Complexity
 - * Currency exchange rates
 - * Transportation
 - * Human factors
 - * Public policy

Global Supply Chain Infrastructure

- * Security
- * Public policy
- * Disruption
- * Redundancy

Applied Research Supporting Technologies

- Modeling and Simulation**
 - * Model development
 - * Model validation
 - * Framework
 - * Human interaction



The industry members of the VLRC will help determine the problems to focus upon and the formulation of the technical solutions that solve those problems. The VLRC will then provide the environment in which the proof of concept can be developed and the system validation can occur, all guided by the industry's understanding of the problem to be solved and the practicality of candidate solutions.

