



# Rapid Analysis and Prototyping Toolkit for Resiliency

RAPTR<sup>TM</sup> is LMI's flagship model-based system engineering simulation and analysis toolkit trusted within the national security space enterprise. RAPTR<sup>TM</sup> provides an extensible, scalable architecture for modeling, simulation, analysis, and visualization for the space warfighting domain as well as cross-domain integration.

Intuitive graphical user interfaces and streamlined workflows combined with advanced 2D/3D visualizations allow users to focus on the data they need to perform their mission faster and smarter. The complete offering includes extensive subject matter expertise and big data analytics to enable on-orbit decisions at strategic, operational, and tactical levels with speed, agility, and accuracy.



#### Commander's Dashboard

Provides operators the ability to visualize satellite catalogs in real time to defend highly valued assets against harmful objects



#### **Concept Analysis**

Provides engineers, analysts, and operators with a variety of toolsets that allow them to evaluate "what if" type scenarios involving space-based and ground-based kinetic weapons, RF jammers, directed energy systems, and high-power microwave technologies



#### Communication Analysis

Concept analysis specifically focused on higher-fidelity detailed RF communications and electronic warfare capabilities



### Agent-Based Simulation

Provides a modeling and simulation engine for calculating complex interactions and behavioral analysis between space, air, maritime, and terrestrial based assets



#### Course of Action Planning & Analysis

Generates in depth satellite maneuvering solutions to determine the best course of action for satellites to take for both offensive and defensive scenarios, and results in generating an optimized mission plan

### **Data Analytics Suite**

Provides automated and interactive tools tailored for data analysis of the entire suite of RAPTR<sup>TM</sup> applications, while generating plotting capabilities and geospatial views of data in near real-time

#### **Wargaming Simulation**

Extends RAPTR<sup>TM</sup>'s agentbased simulation capabilities to incorporate operator-in-theloop ("OITL") decision making, and the support of new use cases including wargames, exercises, and training

### Knowledge Management

Provides a sharable database accessed via web-based client, featuring visualizations in a nodal graph format

## **Trusted Integrator**

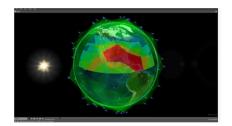
- Space Warfighting Analysis Center (SWAC)
- Space Security and Defense Program (SSDP)
- National Space Defense Center
- United States Space Command (USSPACECOM)
- Space Training and Readiness Command (STARCOM)
- Intelligence Community

## **Proven Innovation**

- 2023, '22, & '21 SWAC Force Design Conference
- 2022 SECDEF & DNI Space Strategic Review
- 2020 SSDP LEO Force Package Analysis
- 2019 AFWERX Space Pitch Day
- 2019 SECAF 90-Day Study
- 2019 OSD Strategic Portfolio Review
- 2019 Air Force CORONA Event

### **Mission Areas**

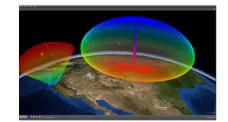
- Orbital Warfare
- · Electronic Warfare
- Space Data Transport & SATCOM
- Rendezvous & Proximity Operations

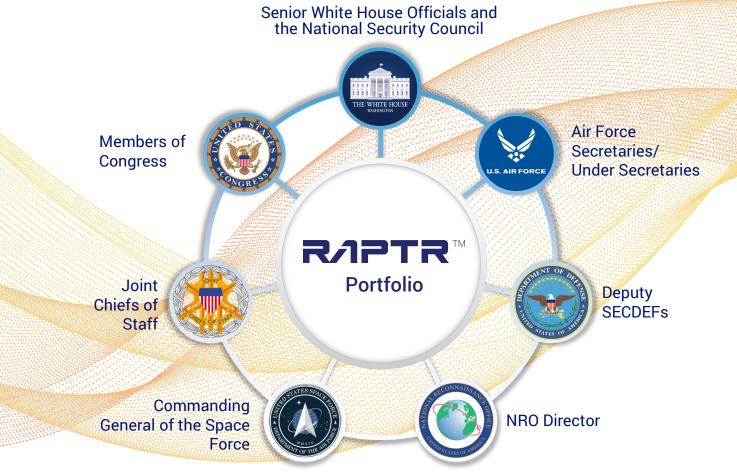


- Space Control
- Space Domain Awareness
- Wargaming & Exercises
- Threat Modeling



- · Operational Planning
- Missile Warning & Missile Track
- Positioning, Navigation & Timing
- Test, Training & Evaluation





## **About Us**

At LMI, we're reimagining the path from insight to outcome at the new speed of possible. Combining a legacy of over 60 years of federal expertise with our innovation ecosystem, we minimize time to value and accelerate mission success. We energize the brightest minds with emerging technologies to inspire creative solutioning and push the boundaries of capability. LMI advances the pace of progress, enabling our customers to thrive while adapting to evolving mission needs.

Learn more at lmi.org



