

# Risk Terrain Modeling for Spatial Risk Assessment:

August 13<sup>th</sup> and 14<sup>th</sup> 2013 @ Four Points Sheraton

With the growing utilization of intelligence-led operations in the public safety and security community, risk assessments for crime are especially important for tactical actions, resource allocations, and short- and long-term planning.

This is a very comprehensive workshop that teaches the steps of Risk Terrain Modeling (RTM) for spatial crime analysis and crime forecasting. It starts at the introductory level and continues through intermediate/advanced. Here is an overview of the 10 Modules, delivered over two full days:

Module 1: Introduction to risk terrain modeling (Origin and Overview)

Module 2: Operationalizing Spatial Influence of Crime Risk Factors

Module 3: Technical steps of risk terrain modeling

Module 4: Finalizing risk terrain maps to communicate meaningful information; exporting maps to KML and assessing street-level context w/ Google Earth

Module 5: Testing predictive validity of risk terrain models

Module 6: Theoretical framework of risk terrain modeling

Module 7: Developing risk-based intervention strategies w/ RTM Intel; RTM for reasonable suspicion

Module 8: RTM Software: Easily and quickly produce weighted and statistically valid risk terrain models and maps

Module 9: Integrating RTM w/ other spatial analysis techniques; Assessing situational context

Module 10: Case Study

Risk Terrain Modeling, or RTM, is an approach to spatial risk analysis that utilizes a geographic information system to attribute qualities of the real world to places on a digitized map. It operationalizes the spatial influence of risk factors to common geographic units and then combines separate layers to produce “risk terrain” maps showing the presence, absence, or intensity of all risk factors at every location throughout the landscape. Theoretically- and empirically-grounded risk terrain maps show where conditions are suitable for crimes or other hazardous events to occur in the future. RTM offers a statistically valid way to articulate and communicate criminogenic and vulnerable areas at the micro-level. RTM produces meaningful and actionable information that can be used for forecasting, resource allocation, needs assessment, tactical operations, strategic planning, and evaluation.

The workshop is developed by instructors from the Rutgers University Center on Public Security who originated and continue to advance the RTM technique. It covers the process for creating risk terrain models and maps using basic tools available in common GIS software, as well as a new free RTM software application developed by Rutgers University School of Criminal Justice. After completing this workshop, you will be able to produce risk terrain models and maps that give actionable meaning to the relationships that exist between place-based indicators and crime events (or other hazardous outcomes).

At the end of this training webinar, you will be able to produce risk terrain models and maps that give actionable meaning to the relationships that exist between place-based indicators and crime (or other hazardous event) outcomes. You will be able to use RTM to perform spatial risk assessments and develop strategic models to forecast where problems are likely to emerge, and to allocate resources and engage in steps that might reduce risks and prevent problematic events from occurring in the future.

**Who Should Attend?**

Crime analysts, intelligence analysts, security professionals, researchers, criminal justice students, and GIS users interested in spatial modeling and risk assessment.

**Software:**

This course is currently designed around both ArcGIS versions 9 and 10. All participants will receive an extended trial copy of ArcGIS 10.1 for installation on personal computers.

**Prerequisites:**

Basic computer skills and knowledge of ArcGIS are highly recommended, but not required.

Website: <http://www.rutgerscps.org/rtm/>

