

Applying Risk Analysis to Support Intelligence Analysis

This project will attempt to apply risk analysis tools and techniques to support intelligence analysis and law enforcement decisionmaking.

Modeling Area: Risk Assessment and Advanced Decision Analysis

Case Studies Supported: NA

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Institution: RAND Corporation

Other Investigators: Erroll Southers, Detlof von Winterfeldt



Brief Description:

Intelligence analysis uses qualitative and quantitative reasoning tools to translate what is known about an adversary's intentions and capabilities into actionable advice on how respond in anticipation of the adversaries actions. As part of a Year 4 CREATE study of the value of information of intelligence analysis, we reviewed what types of intelligence analysis the private sector receives and seeks and for what purposes. At the same time, local law enforcement is conducting parallel searches for and reviews of intelligence products to anticipate and disrupt terrorist attacks. One challenge this presents is how both the private sector and local law enforcement decide when and how to act based on intelligence analysis. A specific example of such a decision is that of when law enforcement should interdict a terrorist cell that is being monitored. Acting too late risks the possibility of failing to prevent an attack. Acting too soon jeopardizes the loss of potentially valuable information that could be gained through continued surveillance. This problem will serve as the basis for developing tools for helping local law enforcement structure the use of intelligence analysis in decisionmaking.

Objectives:

This research will (a) develop tools to structure the use of intelligence analysis in decisionmaking and (b) work with local law enforcement representatives linked with CREATE to apply these tools to appropriate problems.

Interfaces to other Center Projects:

This work will interface closely with the work of Jennifer Sims and her colleagues at the CPSS and with the work of Eli Berman by drawing on their work to review current intelligence practices and characterize different types of intelligence products and sources. This research will support the CPSS work by suggesting which types of products and sources would be most valuable to risk management, thus possibly providing the motivation for modifying intelligence analysis practices.

Interfaces to non-Center Projects:

This work will benefit from parallel work that the PI is engaged in through the RAND Center for Terrorism Risk Management Policy to catalog information sharing mechanisms throughout the intelligence community including DHS, the FBI, and CIA. The project can also be leveraged by CREATE as part of CREATE collaboration with the Homeland Security Institute effort on risk analysis and intelligence analysis.

Major Products and Customers:

The research will produce two principal products: (1) a methodology for structuring the use of intelligence analysis in risk analysis and (2) an assessment of the utility of this approach on an application developed through collaboration with local law enforcement representatives that have been working with CREATE. These products will be documented through briefings and research reports. This work will be of interest to producers of intelligence products like DHS – IA and DHS – HITRAC, consumers of intelligence products like local law enforcement and private sector risk managers, and officials responsible for establishing policies regarding information sharing and risk assessment like DHS-IA, DHS-Policy, and DHS-ORMA.

Technical Approach:

The methods for structuring the value of intelligence analysis will be grounded in the theory of decision analysis relying on techniques such as value-of-information analysis and multi-criteria decision analysis.

Major Milestones and Dates:

1. Identify appropriate application of risk analysis to intel analysis through discussions with local law enforcement – December 2008
2. Develop and review template decision support tool for identified application – April 2009
3. Present initial briefings to policymakers and analysts in DHS, the intelligence community, and risk modeling community – July 2009
4. Present final reports and briefings to policymakers and analysts – September 2009