

RESEARCH AREAS OF INTEREST FOR SUMMER 2020



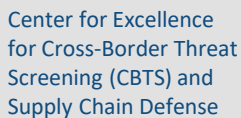
Crisis Response Sea-Ice and Weather forecasting tools
High-resolution Ice-Ocean Modeling and Assimilation System (HIOMAS)
Arctic Oil Spill Modeling for Improved Response to Arctic Maritime Spills
Arctic Domain All-Hazards WebGIS



Border Security (Influences and factors that impact border, trade, security, and immigration activities, cross-border agreements, tech)
Immigration (methods for identifying human traffickers, policy research, predictive tools, adjudication, population dynamics)
Legitimate Trade and Travel (differentiation of high/low risk, trade agreement facilitation, interdiction of dangerous cargo or passengers from the legitimate mass)



Operations Research
Risk Analysis
Data Analytics



Detection of threats and disruptions to global supply chains
Supply chain traceability
Improved risk awareness and mitigation of threats to American agriculture
Data integration and analytics



Criminal Investigative Processes
Forensics
Predicting future criminal activity
Understanding the development of criminal activity and ways to disrupt criminal activity



Mobile Communications
Advanced Data Analytics
Cybersecurity



Refined storm surge models and delivery of high-resolution surge predictions for approaching storms.
Development of predictions of coastal hazards and their likely impacts, inclusive of more robust pre-disaster plans and methods for integrating same into community planning processes.
Improved risk communications to multiple audiences.



Sensor technologies and remote sensing platforms for maritime security applications
Data analytics and visualization tools
Digital Signal Processing
Maritime Cybersecurity