

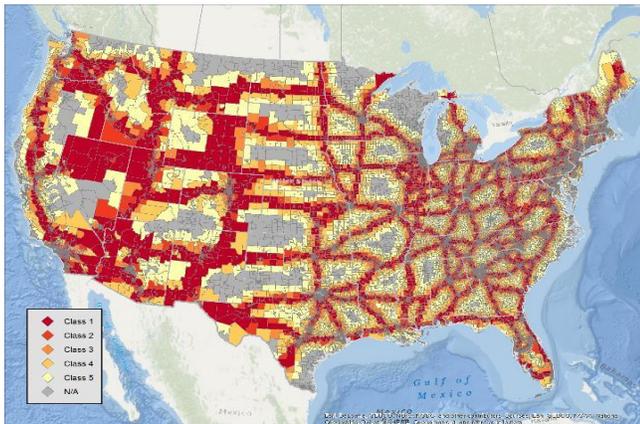
Radiological/Nuclear Detection Capability Development Framework Mapping Tool

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PROJECT OBJECTIVES

- Provide state, local, tribal, and territorial stakeholders with a risk-based tool for self-assessment of capability gaps for the domestic layer of the Global Nuclear Detection Architecture.
- Map the aggregate risk for adversaries targeting or transiting a given location.
- Provide clear and comprehensive summaries of the risks and desired radiological/nuclear (RN) detection capabilities to facilitate engagement and planning.

CAPABILITY DEVELOPMENT FRAMEWORK (CDF) MAPPING TOOL DEVELOPMENT



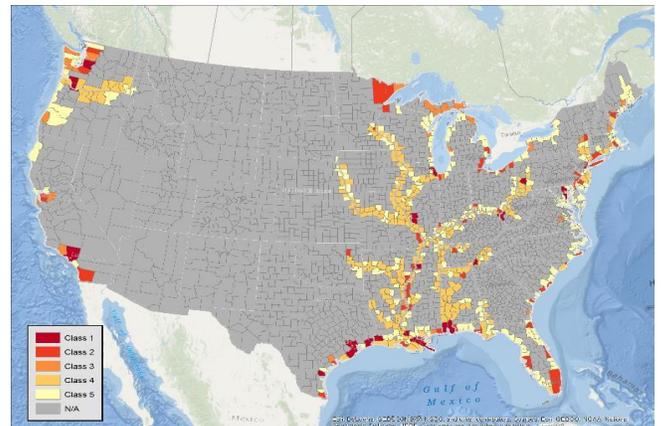
National Interior Pathways Analysis Result

The resulting mapping tool uses highly granular point data on critical infrastructure, transportation networks and flows, and Census data drawn from a variety of public and unclassified governmental data sources. These data are then combined to provide measures for the individual risk factors, which are then combined to classify a jurisdiction's aggregate level of risk.

The CDF Mapping Tool is currently being developed as a web-based tool to provide risk assessments at the county level within the contiguous United States. The tool is also being designed to allow the users to conduct capability gap analysis to determine their jurisdictions' level of RN detection capabilities as compared to the recommended capabilities given the aggregated level of risk for their jurisdictions.

The Capability Development Framework (CDF) was originally produced by the Domestic Nuclear Detection Office (DNDO) in 2011 to provide state, local, territorial, and tribal stakeholders with a decision support tool for identifying their specific RN target and transit risks and the appropriate level of capability to counter these risks. The CDF draws on a variety of different factors to assess the overall risk within five categories: Interior Population Centers, Special Events, Interior Pathways, Land Borders and Maritime.

START updated the original version of the CDF to improve the risk metrics and enable the tool to be used for centralized risk assessment by linking the tool to national-level databases.



National Level Maritime Pathway Analysis Result

FUTURE DIRECTIONS

The CDF Mapping Tool is built on a versatile analytical platform that enables rapid development for alternative uses. The risk assessment portion can readily be modified to map risks for a number of other threats or hazards. Likewise, contingent on data availability, the Mapping Tool can be applied to other geographic regions.



The National Consortium for the Study of Terrorism and Responses to Terrorism (START) is supported in part by the Science and Technology Directorate of the U.S. Department of Homeland Security through a Center of Excellence program headquartered at the University of Maryland. START uses state-of-the-art theories, methods and data from the social and behavioral sciences to improve understanding of the origins, dynamics and social and psychological impacts of terrorism. For more information, contact START at infostart@start.umd.edu or visit www.start.umd.edu.