

# Transnational Illicit Trafficking (TransIT) Geospatial Tool

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## **PROJECT OBJECTIVES**

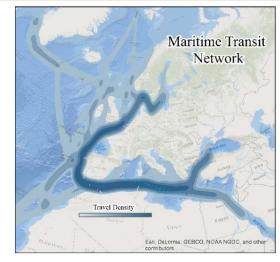
- Identify transnational criminal organizations (TCOs) and networks operating in a selected region capable of engaging in radiological/nuclear (RN) smuggling (or other form of smuggling of interest to the client)
- Analyze possible smuggling routes and methods that could be used by TCOs smuggling these materials on behalf of terrorists
- Explore and analyze vulnerabilities and provide possible modifications to enhance the counter-trafficking response

#### TransIT TOOL DEVELOPMENT

TransIT was developed to address the research objectives above for Central America, North and West Africa, and Europe, but it can be expanded to other illicit trafficking contexts. The model calculates optimized routes of TCOs based on a variety of risk indices and accounting for 12 modes of transportation: road, tunnel, foot, commercial and passenger aviation, Cessna, ultra-light aircraft, shipping, go-fast boats, pangas, full and semi-submersibles, sailboats, and rail.

An in-depth analysis of intermediate transit chokepoints, key aerial, land and sea based transition points, and preexisting and predicted trafficking routes was conducted using fixed origin points based on TCO operational areas as well as predetermined destination points, including both official Ports of Entry (PoEs) and illicit land, sea, and air entry points.

TransIT is a dynamic model that is able to continuously absorb the most current data and can be reworked to depict specific scenarios such as avoidance of detection capabilities and conducting false-flag operations.





The resulting assessment includes more than 460,000 probable routes for TCO smuggling, analysis of regional and group variation in trafficking threats, and strategic valuation of trafficking chokepoints, as well as implementation of security initiatives at foreign ports.

TransIT By the Numbers
Socio-Behavioral Components
150+ TCO and terrorist group profiles
Group areas of operation
Alliances and rivalries among groups
Risk tolerance levels of individual groups
Geospatial Components
18 million+ segments
8 million+ junctions
300 legitimate ports of entry/illicit entry points
21,000+ origin points

# **FUTURE DIRECTIONS**

Efforts are currently underway to incorporate a probabilistic graphic model into the TransIT tool, which will allow the tool to more accurately account for the preferences of the group under examination. The TransIT tool currently covers Central and South Americas; Europe; and Northern and Western Africa. Please inquire about additional regions and applications of the tool.

## **START**

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 based 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.