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Space Operations Risk Tool

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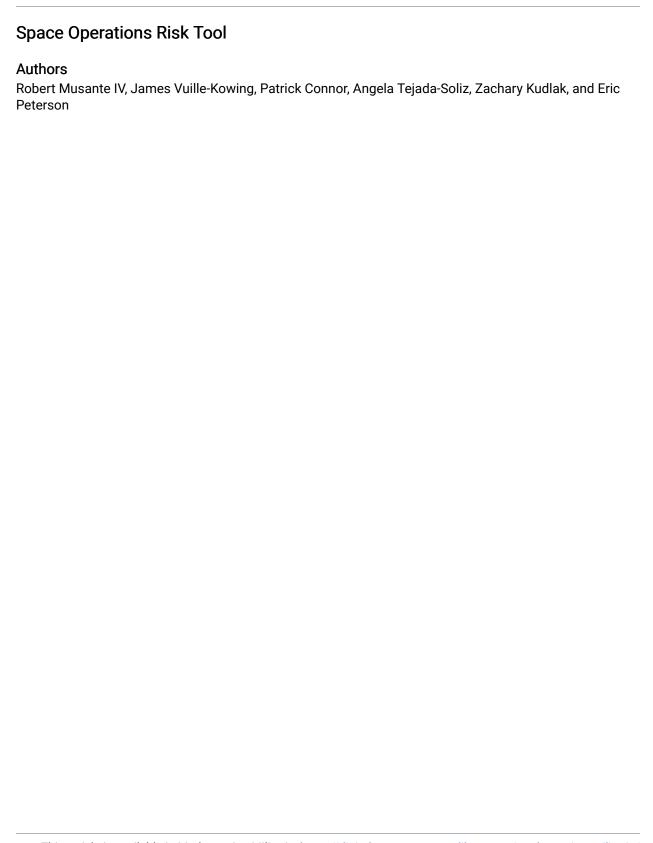


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Space Operations Risk Tool (SORT)

Department of Mathematics - Spring 2023

Background: The Coast Guard assists space agencies in the launch and recovery of their space assets. An analysis of vessel traffic density is needed to advise these space agencies on the safest place to conduct their space operations.

Final Product: A tool that allows the user to select an area and date of a proposed space operation.

Metrics such as traffic

density and average

people on board are

returned to quantify

the expected risk.

Problem Statement: Develop a tool that evaluates the risk to mariners within the vicinity of a proposed space operation in the PACAREA Area Command.

Methodology: ArcGIS was used to analyze Automatic Identification
System transmissions, enabling a risk estimate based on past trends.

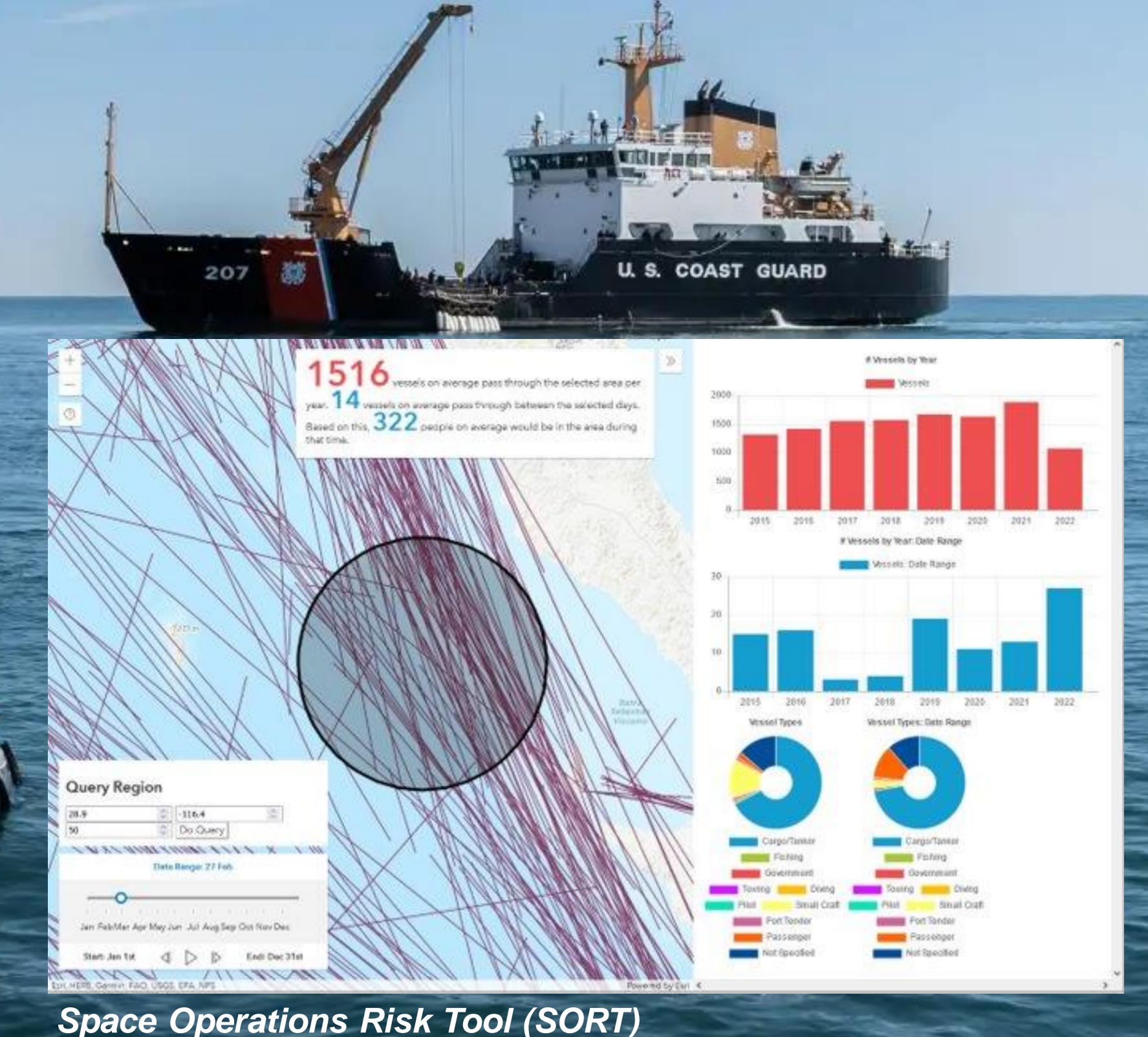


Photo Credit: NASA/Josh Valcarcel

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