Ports of Long Beach, Los Angeles using USC software to beef up security

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Officials at the U.S. Coast Guard are now using USC-designed anti-terrorism software to maximize security patrols at the nation's busiest seaports, the university announced Wednesday.

Earlier this month, the ports of Long Beach and Los Angeles implemented ARMOR-PROTECT, a program that uses a series of mathematical equations to randomize security patrols while giving maximum protection to high-level targets such as bridges, terminals and piers.

University of Southern California computer scientist Milind Tambe, who created the program with federal funding by the National Center for Risk and Economic Analysis of Terrorist Events, based the program on a mathematical game theory that anticipates the various outcomes of an attack from adversaries and applies to a number of scenarios that the Coast Guard would encounter.

"We have many things to protect and there's just not enough security resources to be available all the time, and therefore we have to deploy our security resources taking into account different targets that have many different levels of importance," Tambe said.

The program, already implemented at the ports of Boston and New York, is being vetted by the Coast Guard with the hopes of implementing it at the rest of the nation's 361 ports, said Craig Baldwin, the Coast Guard's program manager for ARMOR-PROTECT. A similar program led by Tambe was used at the Los Angeles International Airport for scheduling vehicle checkpoints and canine patrols and, most recently, on the Los Angeles Metro system, which help catch people who don't pay fares.

The program's success at LAX prompted federal air marshals to use the ARMOR-IRIS software system to randomize schedules.

"Coast Guard men and women work throughout the ports performing maritime safety and security, law enforcement, emergency response, environmental protection and regulatory duties," Capt. Jim Jenkins, commander of Sector Los Angeles-Long Beach, said in a statement. "With these tremendous responsibilities, we welcome the ARMOR-PROTECT model, which is designed to better optimize the use of Coast Guard and partner resources, thereby, strengthening our overall security operations."
Port officials said the program will boost the already stringent security measures that are in place.

"The local agencies look to the U.S. Coast Guard as the federal maritime security coordinator for programs such as this to keep us well prepared," Chief Ronald Boyd of the Los Angeles Port Police said in a statement. "Our port complex is viewed as a maritime leader in addressing security concerns."