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Project Title

Lost and Found: The Math behind Search and Detection

Abstract

Objectives/Goals
This project uses mathematical concepts, specifically theoretical probability, to create an optimal search model for a target. Computer programs in C++ are also used to perform simulations and calculations.

Methods/Materials
I wrote my own code in C++ to perform sample calculations for simulations.

Results
We have created an optimal search and detection model using probability theory and other mathematical concepts.

Conclusions/Discussion
An optimal search strategy has been formulated, and can be used to find a lost target in almost any situation. This includes, but is not limited to, the work of rescue teams, the police, and the Navy.

Summary Statement

I have developed an optimal search strategy, using both a mathematical method and with implementation in a C++.

Help Received