

DHS Science and Technology Directorate

Lost Person Locator: Locating Missing Persons in the Wilderness and Rural and Urban Locations

Standardizing first responder search and rescue protocols

In 2013, the FBI's National Crime Information Center reported 627,911 individuals as missing, of which 293,684 were runaways. Of the remaining 334,227, it is estimated that more than 100,000 of the disappearances resulted in searches in wilderness, rural, and urban settings.

Loss of life can be mitigated by an aggressive and well-planned initial response by first responders. However, search efforts, which are usually coordinated among multiple agencies and may exceed 100 personnel, can easily go awry as first responders do not have access to authoritative, comprehensive guidelines to conduct lost person searches.

The Department of Homeland Security Science and Technology Directorate (S&T), along with dbS Productions—known as the leading source of search and rescue research, publications, and training—has initiated a program to develop guidance, protocols and strategies responders can employ while searching for lost individuals. Called the Lost Person Locator, these guidelines and data sets will be readily available in an easy-to-follow format. First responders in the field will be able to use the Lost Person Locator software to quickly and safely locate missing people.

Leveraging more than 30 years of search and rescue expertise

The Lost Person Locator software will allow first responders to visualize where a lost person is likely located, which can advance ground search and rescue operations. Using probability of area, responders can visualize the most likely areas to begin their search based on accumulated data. The Lost Person Locator software will save resources, time, and possibly more lives.

The project will roll out in two phases:

Phase I: Develop a prototype for a simple job aid (search wheel) and field operations guidelines that will help first responders determine where to search and what questions to ask when they first arrive at the search scene. These resources will provide responders with limited search and rescue experience with knowledge gleaned from similar searches conducted in the past.

Phase II: Enter new information gathered from previous searches during Phase I into the International Search and Rescue Incident Database (ISRID) and then convert the information into tools (e.g., software, training, publications and mobile applications) that will assist first responders in the field during searches.

The approach allows researchers to build upon more than 30 years of search and rescue research in wilderness, rural and urban settings.



The Lost Person Locator will allow responders to rapidly initiate searches using years of accumulated expertise.

Building a prototype for field-testing

S&T is funding the Lost Person Locator project through the Small Business Innovation Research program, an awards-based initiative that matches small businesses with federal agencies to develop innovative products. During two phases (one to two years), S&T and dbS Productions will determine the feasibility of the Lost Person Locator concept; develop a field-operating guide and software application and test the technology with first responders.

The project is currently in the first phase of development. The prototype search wheel, field guide and final report will be delivered in 2015, with the goal of delivering a final prototype by March 2016. During phase II, the product will undergo testing and evaluation.



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To learn more about the Lost Person Locator, contact SandTFRG@hq.dhs.gov.