Lost Person Behavior

Course

Administration

Instructor Guide

October 2009

RATIONALE

Lost Person Behavior is a critical element of search theory. It provides information that helps the search planner, team leader, and team member's best determine where to look. If resources are not deployed to the correct location, the subject will not be found. If team leaders fail to deploy the team within the search area in an appropriate manner, the chances of making the find are reduced. Ultimately, it is the team member who must typically place their eyes on the subject, recognize the subject, and make the all important detection. Lost Person Behavior is one of the most important tools to help locate the subject.

A solid understanding of lost person behavior assists in the placement of resources into the correct location sooner. While this does not guarantee a find, it does increase the subject's odds of being located sooner. Faster finds results in fewer resources, less cost, and most importantly of all, a better chance of survival for the subject.

Field experience has shown that an in-depth understanding of lost person behavior can significantly reduce the time it takes to locate a missing subject. However, the topic is only offered in search management courses, and in a highly abbreviated format. This course provides guidance and formal training that teaches industry specialists to utilize this important tool.

This course is focused on lost person behavior primarily in a ground search and rescue environment. However, some sections do address missing aircraft and search subjects who enter the water from the ground. It does not address traditional maritime search and rescue. This course is intended to benefit new or experienced search and rescue team members, team leaders, and search planners. This course is not intended to provide in-depth instruction on search management in general.

After completing this course, participants will possess the basic knowledge necessary to apply the concepts of lost person behavior both in the field and in base work. In addition, search management personnel will have a better understanding of tools available to deploy the initial tasks.

COURSE GOAL

The goal of the course is to provide participants with the tools and knowledge necessary to successfully look in the right place, understand lost person behavior, apply statistical tables, identify needed special investigation, and deploy resources into the field. Participants should also be able to brief other searchers on key components of lost person behavior.

COURSE OBJECTIVES

Upon successfully completing this course, the participants will be able to:

- Describe key developments in the field of lost person behavior. (Unit 1)

- Describe how the ISRID database is organized to best predict behavior. (Unit 2)

- Demonstrate the ability to determine correct subject category given an actual incident scenario. (Unit 2)

- Judge different methods to combine different subject categories. (Unit 2)

- Explain different causes of becoming lost and different strategies lost persons attempt. (Unit 3)

- Demonstrate ability to identify decision points given a map and a lost person scenario. (Unit 3).

- Describe key components and common misconceptions of lost person behavior. (Unit 4)

- Use the correct statistical summary data from the ISRID database to best model a subject's possible location and survivability. (Unit 5)

- Demonstrate the use of reflex tasking to generate initial tasks given a map and a scenario. (Unit 6)

- Describe key points for each subject category profile. (Unit 7)

- Demonstrate the ability to deploy resources appropriate for each subject category given a map and scenario information. (Unit 7).

TARGET AUDIENCE

The target audience for this course is as follows:

PRIMARY AUDIENCE	SECONDARY AUDIENCE
Search and Rescue (SAR) Management	Public Safety Officials
Search and Rescue (SAR) Field personnel	Public Safety Responders
Law Enforcement personnel	Parks and Recreations participants
First Responders	Education and Academic participants

The lost person behavior course has no prerequisites. Those with a search and rescue background will get the maximum benefit from the course.

COURSE STRUCTURE/STRATEGY

All participants will be prepared for an environment of interactive lectures, class participation, giving mini-presentations, and working independently or in groups to complete activities. Participants will be encouraged to apply their existing search and rescue skills and knowledge as well as those newly acquired in challenging and dynamic scenarios. Each unit will have a lecture portion, and discussion opportunities, accompanied by group activities to highlight, expand, and practice the teaching points of the course.

An important part of this course will be the organization of students into small groups of two to four people. This will ensure the maximum participation in the group discussions and activities. Course instructors will help facilitate group activities and discussions. These activities include opportunities for mentoring, providing immediate feedback and ensuring that group activities are performed as specified in the course objectives.

Students will be required to demonstrate their acquisition of the skills and knowledge through activities revolving around a given search scenario. Throughout the course, students will be given various search scenarios.

DURATION

This course is designed for either a 1-day format requiring 7 student hours or a two-day format requiring 14 student hours. This time includes lecture, group activities, breaks, and the end-of-course exam. It does not include the lunch break.

Course Delivery

The course will be delivered as a one or two day workshop. Some instructors may also elect to teach the course in hour long blocks of time over an extended time.

The course is designed to meet the requirements of the International Association for Continuing Education & Training (IACET) standard (ANSI/IACET 1-2007 Standard). The one-day class will award 0.7 CEU and the two-day class will award 1.4 CEU provided the course is not shortened and meets all other requirements. Awarding of CEU from dbS Productions has additional requirements and costs.

INSTRUCTOR/FACILITATOR QUALIFICATIONS

For field offerings the course will be managed by a Lead Instructor who is responsible for scheduling and managing the overall course delivery.

This course is designed for delivery by dbS Productions Certified Instructors who have search and rescue experience, search management experience, proven instructional experience, have successfully completed a Lost Person Behavior (LPB) workshop, and have successfully completed a Lost Person Behavior Train-The-Trainer workshop. Experienced search and rescue trainers may also deliver specific sections of instruction in their sphere of competence should the need arise.

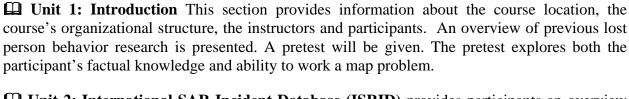It is recommended that a Lead Instructor be selected from the pool of instructors.

The Lead Instructor should be able to:

- Assist the dbS Productions course manager with resident or offsite deliveries.

- Provide the class prompt feedback on subject matter issue resolutions (parking lot issues)

- Serve as a map problem leader during group activities

- Facilitate discussion of subject issues arising among the instructor group

- Facilitate discussion of the exams and resolve any exam issues relating to the accuracy of the content

- Establish a contact with dbS Productions to discuss any factual or content issues.

Instructors will ensure that they:

- Are familiar with all course materials

- Have a copy of the course agenda

- Update their unit examples to remain timely

- Are current with their instructional skills

OVERVIEW OF COURSE UNITS AND EVALUATION

📖 **Unit 1: Introduction** This section provides information about the course location, the course's organizational structure, the instructors and participants. An overview of previous lost person behavior research is presented. A pretest will be given. The pretest explores both the participant's factual knowledge and ability to work a map problem.

📖 **Unit 2: International SAR Incident Database (ISRID)** provides participants an overview of the basic organization of the ISRID database. This allows the participant to use the correct statistical tables in order to best predict the behavior of a missing subject. The criterion for placing a missing subject into a subject category is shown. Participants are given two different actual scenarios to demonstrate the ability to correctly determine the correct subject category. Overall findings from the ISRID database regarding survivability and survivability factors are also shown.

📖 **Unit 3: Lost Person Strategies** provides participants information about the definition of lost, different scenarios that may cause a subject to become missing, and different strategies lost persons use when lost. Several scenarios are then presented which allow the participants to discuss the correct definition of lost and determine the appropriate scenario. The concept of decision points is introduced. Decision points are then illustrated with maps and photographs. Participants are then given several map problems that illustrate different strategies used by lost subjects. In the final section, participants working in groups must demonstrate the ability to identify decision points given a map and a lost person scenario.

📖 **Unit 4: Myths and Legends:** The instructor will discuss several common misconceptions about lost person behavior and statistical concepts. Topics include turning behaviors, uphill versus downhill, practical implications of statistical concepts, affects of climate on behavior, and computer modeling. At the end of this lesson, participants will be able to score the pre-test.

📖 **Unit 5: ISRID Tables explained** provides an overview of the statistical tables and models used in the ISRID database. The instructor will discuss with participants how the book Lost Person Behavior is organized. Then each of the predictive models (ring model, dispersion angle, elevation model, track offset model, mobility model, and feature model) will be demonstrated. The instructor will lead a discussion on how the different models may be integrated while planning. The models will be put into context with the current method of determining probability

of containment (or probability of area) which is the Mattson methods. The instructor will also demonstrate the survivability statistics. Participants given a scenario will use the textbook to determine the subject's statistical location and potential survivability.

 Unit 6: Reflex Tasking The instructor will present the key components of reflex tasking using the bike model to organize basic types of tactical operations. Participants working in groups will then demonstrate the use of reflex tasking to generate initial tasks given a map and scenario information.

 Unit 7: Subject Categories: The instructor will present key concepts and highlights from each selected subject category. The instructor will tailor the presentation to meet the needs of participants based upon any regional differences. Instructor will foster class discussion by encouraging presentation of relevant cases from the local area. Instructor may also substitute map problems presented in the course with local map problems that demonstrate the same key concepts of lost person behavior. Participants should be able to use the textbook to determine the definition of each category, what types of activities or conditions included in each category, key profile points, the selection of relevant statistics, appropriate reflex tasks, and detailed investigation questions needed for each subject category. Several map problems are presented so that the participants can demonstrate the ability to deploy resources appropriate for each subject category given a map and scenario information. Potential subject categories to cover include; Abduction, Aircraft, Angler, ATV, Autistic, Camper, Caver, Child, Climber, Dementia, Despondent, Gatherer, Hiker, Horseback Rider, Hunter, Mental Illness, Mental Retardation, Mountain Biker, Other, Runner, Skier, Snowboarder, Snow-Mobiler, Snowshoer, Substance Abuse, Vehicle, Water, and Worker. The unit will be summarized with a brief discussion of the importance of collecting data.

SCHEDULE

A sample agenda is provided to assist the Course Manager or Lead Instructor to prepare for delivery of the two-day version of the course.

Two-Day Agenda

Day 1

1. Welcome and Opening	**09:00 – 10:00**
2. International SAR Incident Database (ISRID)	**10:15 – 11:00**
3. Lost Person Strategies	**11:15 – 12:15**
Lunch	**12:15 – 13:15**
4. Myths and Legends	**13:15 – 14:15**
5. ISRID Tables explained	**14:30 – 15:15**
6. Reflex Tasking	**15:30 – 17:30**

Day 2

Subject Categories   **08:30 – 18:00**
Abduction, Aircraft, Angler, ATV, Autistic, Camper, Caver,
Child, Climber, Dementia, Despondent, Gatherer, Hiker,
Horseback Rider, Hunter, Mental Illness, Mental Retardation,
Mountain Biker, Other, Runner, Skier, Snowboarder, Snow-
Mobiler, Snowshoer, Substance Abuse, Vehicle, Water, Worker

Lunch   **12:00 – 13:00**

Subject Categories continued   **13:00 – 18:00**

ONE DAY AGENDA

Day 1

1. Welcome and Opening	08:30 – 9:15
2. International SAR Incident Database (ISRID)	9:15 – 11:00
3. Lost Person Strategies	10:00 – 11:00
4. Myths and Legends	11:00 – 12:00
Lunch	12:00 – 13:00
5. ISRID Tables explained	13:00 – 13:45
6. Reflex Tasking	13:45 – 14:45
7. Subject Categories	14:45 – 17:00

COURSE REFERENCES

The materials listed below are used in this course.

- *Lost Person Behavior* by Robert J. Koester*

- *Urban Search* by Chris Young and John Wehbring

- *Search Wheel*

- *Lost Person Behavior Student Workbook**

- Course Handouts

    - Map problems (if not included in student workbook)

    - Course administration (Agenda, class rooster)

    - Student Evaluation Forms (one set per group instructor)

Note that for each offering, instructors must review current dbS Production publications to ensure that students are receiving the most recent version of the referenced documents.

*Each student is required to already have, purchase, or be given a copy of *Lost Person Behavior* and the student workbook as a key element of the instructor – dbS Productions presentation license agreement.

SUPPORTING PUBLICATIONS

The following publications are suggested to augment the delivery of this course.

- *Analysis of Lost Person Behavior* by William Syrotuck

- *Lost Person Behaviour* by Ken Hill

- *Lost Alzheimer's Disease Search Management* by Robert J. Koester

SPACE REQUIREMENTS

The following space requirements are recommended:

- Primary Room for Instruction

  - Room Dimensions – for class of 25-30 students, minimum 25 ft. x 50 ft., or similar capacity

  - Five to six tables, seating five to six people per table. Minimum table dimensions to accommodate students, instructors and course materials (manuals) 6 ft. x 8 ft.

  - Instructor table to accommodate assigned instructors, minimum one

  - Additional tables for additional materials and supplies, visual equipment (projector etc.), break foods (coffee, snacks)

COURSE SUPPLIES AND EQUIPMENT

Audio-Visual/Electronic Equipment

- Course Visuals (PowerPoint)

- Computer with PowerPoint software

- LCD Projector, Large Projection Screen

- Hand-held microphones (two per class) if required

- Lapel microphones for instructors (minimum of two if required)

- Laser Pointer

Classroom Materials

- Tables/Chairs (see Space Requirements)

- Easel Pads and Stands (one for instructor)

Administrative Materials

- Name tags and name tents for each student and instructor

- Class Roster

- Course Agenda

- dbS Course Evaluation Form

Student Supplies

- Pads of paper (8-1/2" x 11" size) (one per student and instructor)

- Magic Markers (several colors per table and for instructors)

- Highlighters for participants (minimum one per student)

- Acetate (non-permanent) pens (4 colors per group)

- Pencils

- Calculators (one per table)

COURSE EVALUATION

Level I: The dbS Productions Course Evaluation Form or other course evaluation form will be used to document student feedback on the overall evaluation of the quality of the content, the instruction and the facilities. The form uses a 1–5 rating system, with 5 being the highest. At the end of the course, the lead instructor will lead a feedback session so students also have the opportunity to provide verbal feedback on the course content.

Level II: A Student Evaluation will be performed to assess the students' ability to demonstrate their proficiency in applying the course and management knowledge and skills needed. The Student Evaluation will be conducted during the map problems. Instructor will review performance during the formal map exercises.