

Missing Person Behaviour Bob Koester 2006

Alzheimer's

Category Characteristics

(Koester; 2000; 87 cases)

They go until they get “stuck”.
 Appear to lack ability to turn around.
 Oriented to the past, degree of the disease sends them back in time.
 Usually found in creek or drainage and/or caught in briars/bushes (63%).
 Leaves own residence or nursing home, possibly with last sighting on a roadway.
 Coexisting medical problems that limit mobility are common.
 May cross or depart from road.
 Usually (89%) found within one mile (1.6km) of IPP, half found within 0.5 miles (0.8km).
 Usually found a short distance from road (half within 33 metres).
 May attempt to travel to former residence or favorite place.
 Will not leave many verifiable clues.
 Will not cry out for “help” or respond to shouts (only 1% respond).
 Succumb to the environment (hypothermia, drowning, dehydration, etc.).

Where to Search?

(Koester; 2000; 87 cases)

Residence/nursing home grounds.
 Previous home sites.
 Between previous homes sites and IPP.
 Areas where subject was previously found.
 Within 100 metres of roads.
 Drainages streams, and heavy briars/brush.

Useful Tactics

(Koester; 2000; 87 cases)

Highly systematic search of residence/nursing home and grounds.
 Investigate areas the subject has been previously located.
 Canvass neighborhood.
 Patrol roads within the theoretical search area.
 Establish containment.
 Use trackers early to point last seen and cut for sign along roads.
 Use tracking dogs early at point last seen, along roads, and at clues.
 Deploy air scent dogs into drainages and streams, starting nearest IPP.
 Use ground sweep teams and dogs (in separate segments) expanding from IPP; ensure heavy briars/brush are searched.
 Task air scent dogs and ground sweep teams to search 100 meters (initially) parallel to roads.
 Search nearby previous home sites and the area between home sites and IPP.
 Repeat searches of residence/nursing home grounds at least twice daily.
 Post flyers in appropriate locations.
 Expand search outward from IPP after initial task search.

Distance from PLS (km)

Mean:
 S.D.
 Median:
 Range:
 25%
 50%
 75%
 Max Zone

Find Location (87 cases):

Percent

Structure:
 Yard (open field):
 Drainage:
 Woods/forest:
 Brush/briars:
 Road
 Powerline/linear:
 Other:

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Mental Retardation

Category Characteristics

(Koester; 2000; 87 cases)

Blend of children and Alzheimer's patient.

Shape of distance traveled from IPP curve similar to Alzheimer's with slight expansion of distances.

Good survivability rates (96%).

Almost all will not respond to their name (97%).

17% also had physical impairments.

Subject will not travel to identifiable target.

Often found in structure (21%) or yards (16%).

Will travel into brush/briars, usually to seek shelter. Good penetration of forests.

Elderly mentally retarded more similar to Alzheimer's profile.

None of these subjects get lot taking a shortcut.

Distance from PLS (km)

Mean:

S.D.

Median:

Range:

25%

50%

75%

Max Zone

Where to Search?

(Koester; 2000; 87 cases)

Residence/nursing home grounds.

Areas where subject was previously found.

Drainages, streams and heavy briars/brush.

Find Location (87 cases):

Percent

Structure:

Yard (open field):

Drainage:

Woods/forest:

Brush/briars:

Road

Powerline/linear:

Other:

Useful Tactics

(Koester; 2000; 87 cases)

Urgency is high.

Early use of trackers at PLS/LKP and/or clues.

Thorough systematic search of residence and local yards.

Early deployment of air scent dogs into forests and drainages, starting near IPP.

Consider family shouting name of subject.

Cut for sign along roads and trails/tracks.

Search briars/brush; remind teams of importance of this action.

Subject may flee or move; areas will need to be re-searched with continual importance of clue/sign consciousness.

After initial tasks are undertaken expand search outward from IPP.

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Psychotic

Category Characteristics <i>(Koester; 2000; 25 cases)</i>	Where to Search? <i>(Koester; 2000; 25 cases)</i>	Useful Tactics <i>(Koester; 2000; 25 cases)</i>
Shape of distance traveled curve is similar to children (6-12).	In forested areas, structures and along roads.	Law enforcement agency should provide for safety of searchers.
Fatality rates similar to Alzheimer's (22%).	Usually not in briars/brush.	Limit field use of minors due to potential safety issues.
Many will not respond to name (93%), but may be verbal (21%).		Urgency is high and containment along roads (with patrols) is important.
Some may evade searchers.		Early use of trackers at PLS/LKP.
Subjects did not travel to identifiable target.		Early use of tracking dogs at PLS/LKP and/or clues.
Often found in forest (30%), structures (23%) or along roads (23%).		Thorough systematic search of residence and local yards; repeat frequency.
Tend not to penetrate into thick brush/briars.		Thorough investigation is critical.
Many will walk out on their own (21%).		Early deployment of air scent dogs into forests and drainages, starting near IPP.
None of this category were "lost" in the traditional sense.		Cut for sign along road and trails/tracks.
Lack of medication caused several searches.		Searchers should stop and listen before shouting name if not contraindicated. Subject is not likely to respond to shouted name.
		Subject may flee or move; areas will need to be re-searched with continual importance of clue/sign consciousness.
		Subject may have a fear of authority; consider not wearing uniforms.
		Develop a contingency plan if subject is actively evasive (may require obtaining an emergency care order).
Distance from PLS (km)	Find Location (87 cases):	
Mean:	Percent	
S.D.	Structure:	
Median:	Yard (open field):	
Range:	Drainage:	
25%	Woods/forest:	
50%	Brush/briars:	
75%	Road	
Max Zone	Powerline/linear:	
	Other:	

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Hunters

Category Characteristics

(Hill, 1997; Syrotuck, 1976)

Their concentration on game often distracts them from navigation. (eg. Frequently become disoriented chasing wounded game into thick areas of trees or bush.)

They tend to overextend themselves in darkness and push beyond their physical abilities.

When game laws prescribe the wearing of 'hunter orange', they can be easily detected from a distance or from a helicopter.

Will respond to calls and whistles; may fire shots to attract searchers.

May try to walk out unaided at daybreak after building shelter for the night.

On average 33% walk out unharmed.

High survivability rate.

(Mitchell, 1984)

A common cause is subject error.

Weather is a factor in 18% of cases, darkness is a factor in 33% of cases.

Thirty-nine percent (39%) follow drainages.

Significant number wander and travel cross-country rather than on roads/trails.

Many of these subjects are communicative (eg. they can speak and respond).

Sixty-six percent (66%) are found within two miles (3.2 km).

Distance from PLS (km)

Mean:

S.D.

Median:

Range:

25%

50%

75%

Max Zone

Where to Search?

(Hill, 1997; Syrotuck, 1976)

Trails, tracks, paths and forest roads.

Drainages, streams/river banks.

Forest edges, clearings, points for shelter.

Check local knowledge for favorite places and current conditions.

Useful Tactics

Confinement is a priority.

Thorough investigation, including detailed subject profile, is important.

Attraction methods may be effective.

Clue aware teams along trails and river banks.

Small, rapid response groups to high priority areas.

Aerial survey to plot tracks and trails, forest roads and any clearings.

Find Location (87 cases):

Percent

Structure:

Yard (open field):

Drainage:

Woods/forest:

Brush/briars:

Road

Powerline/linear:

Other:

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Miscellaneous Adults

Category Characteristics

(Hill 1997; Syrotuck, 1976)

This category includes mushroom/ fruit pickers, photographers, rock hounds, and people engaged in some outdoor occupational activity such as surveyors, forestry workers, conservation officers, etc.

Often inadequately equipped and prepared for activity or the circumstances in which they find themselves.

Many subjects found away from trails and tracks/trails.

May panic on realization of situation.

Poorly developed wayfinding skills and may not have map and compass.

Attempts to “find themselves” often exacerbate the situation.

Elderly subjects generally have a higher fatality rate but should generally be included in the category of activity in which they were participating.

(Mitchell, 1984)

Forty to fifty percent (40-50%) are adequately equipped.

Cause is usually subject to error.

Fifty percent (50%) followed a trail or drainage at some time while lost.

Ninety percent (90%) are found within five miles (8 km) of LKP/PLS.

High percentage of these subjects are communicative (eg. they can speak and respond).

Distance from PLS (km)

Mean:

S.D.

Median:

Range:

25%

50%

75%

Max Zone

Where to Search?

(Hill 1997; Syrotuck, 1976)

Frequently located near natural boundaries and vegetation interfaces (forest edge, stream, steep slope) and navigation aids (walls, fencelines, shelters, etc.)

Sometimes wander away from regular tracks and trails and become lost.

Need to identify ‘likely spots’ that may have attracted them.

Find Location (87 cases):

Percent

Structure:

Yard (open field):

Drainage:

Woods/forest:

Brush/briars:

Road

Powerline/linear:

Other:

Useful Tactics

Investigation is especially important for this ‘mixed bag’ category.

Through careful terrain analysis, need to identify relevant locations (magnets) which may have attracted the person.

Rapid response teams and air scenting dogs to cover trails, tracks, streams, forest edges, fencelines, lines of least resistance, etc.

Trackers and trailing dogs at PLS/LKP.

Use air scenting dog teams.

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Skiers:

- Cause is usually human error; 33% due to weather, 20% due to darkness
- Generally follow paths, trails or drainages; 25% attracted by civilization
- Almost all are communicative; 50% are mobile
- 85% are found within 5 miles (8 km) of PLS/LKP
- 83% are not moving after the first 24 hours, 30-45% move at night.

Fishermen:

- Generally well oriented because of directional flow of water or position of lake.
- Cause is most often an accident: slipping into water, falls over cliffs, swept off feet into moving water, etc.
- Very high percentage of this category of subject is boat related
- Often the subject will be deceased.

Climbers:

- Generally well equipped and self-sufficient
- Tend to remain on or near designated routes and climbs
- Weather and/or hazardous conditions (eg. falling debris, avalanche) often limit an individual's abilities
- Technical rescue expertise is generally needed for both search and recovery
- In the backcountry, climbers may take longer to complete their route than expected
- Lower limb injuries on non-technical terrain may delay return.

Distance from PLS (km)

Mean:

S.D.

Median:

Range:

25%

50%

75%

Max Zone

Find Location (87 cases):

Percent

Structure:

Yard (open field):

Drainage:

Woods/forest:

Brush/briars:

Road

Powerline/linear:

Other:

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Despondents

Category Characteristics

(Koester; 2000; 65 cases)

Two distinct patterns emerge for distance from IPP: (1) most subjects are seeking to get just out of sight (50%) within 0.2 miles of IPP), and (2) subjects seek out a specific location, often scenic or significant in their life history.

Location may be the method of suicide (eg. cliffs, water, etc).

Those seeking scenic or significant location are willing to travel (Max Zone 96% = 8 miles (12.8km)).

No subjects really “lost”. Many survivors walked out of their environment on their own.

Typically (33%) located in open forest, sometimes above head of searchers.

Subjects avoid brush/briars.

Age or sex does not predict “just out of sight” or significant location pattern.

Despondent profile has very high mortality rate (>55%). Older males in this category have highest mortality rate (>75%).

(Hill 1997; 15 cases)

It is not usually their intention to travel far, but to find a place where they can be alone and possibly contemplate suicide.

Frequently located at the interface of two types of terrain and/or vegetation boundary.

Often head for a scenic location or well known beauty spot such as a hill which may overlook civilization. Sometimes these places are well known to them.

Rarely found in dense underbrush or trees.

They rarely respond to calls and whistles and may even hide and avoid searchers.

Where to Search?

(Koester; 2000; 74 cases)

Just out of sight, just off of trail or road.

Scenic locations, open forests, significant locations.

There is an extremely high fatality rate – drugs and/or alcohol are frequently involved.

(Hill, 1997; 15 cases)

Scenic locations, high points overlooking beauty spots and/or civilization.

Places well known to them, favorite places previously/frequently visited – favorite walks, tracks, trails.

Terrain interfaces, vegetation changes, breaks of slope, cliffs.

Useful Tactics

(Koester; 2000; 74 cases)

Investigation (methods, buildings, danger to rescuers, significant locations, etc.)

Early use of trackers at PLS.

Early use of tracking dogs at PLS and/or clues.

Check segments within 0.25 miles (0.4 km) with air scent dogs, sweeps, and grids.

Hasty search all scenic/significant locations.

After initial tasks search should continue to concentrate around IPP and then expand to all possible significant locations.

(Hill, 1997; 15 cases)

Investigation is very important. Speak with friends, family, work colleagues, etc, to build an accurate subject profile.

Confinement is a low priority.

Passive tactics not usually successful.

Response should be urgent.

Thorough search of small area (up to 70%).

Use air scenting dog teams.

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Distance from PLS (km)

Mean:

S.D.

Median:

Range:

25%

50%

75%

Max Zone

Find Location (87 cases):

Percent

Structure:

Yard (open field):

Drainage:

Woods/forest:

Brush/briars:

Road

Powerline/linear:

Other:

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Youth (13-15 years)

Category Characteristics

(Hill, 1997)

Navigational and directional skills are much more developed than 6-12 year olds.

Frequently become lost in groups while engaged in exploring or adventure activity.

They rarely travel far in groups.

Will usually respond to calls and whistles.

Often resort to 'direction sampling,' looking for a familiar place or landmark.

They may respond more maturely if with a friend or sibling.

They will attempt to 'find themselves' through often lack adult tactics.

May panic and resort to irrational tactics to locate themselves.

Distance from PLS (km)

Mean:

S.D.

Median:

Range:

25%

50%

75%

Max Zone

Where to Search?

(Hill, 1997)

Tracks, trails, shortcuts – check with friends for 'secret' places and/or favorite places, hideouts or routes.

Landmarks, high points, features, ponds, lakes, streams, drainages, forest edges and clearings.

Any 'known' places, secret play places.

Useful Tactics

Confinement is a low priority unless subject is alone.

Passive attraction methods may be successful.

Rapid response teams to high priority areas.

Use air scenting dog teams.

Find Location (87 cases):

Percent

Structure:

Yard (open field):

Drainage:

Woods/forest:

Brush/briars:

Road

Powerline/linear:

Other:

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Children (1 – 6 years)

Category Characteristics (1-3 years)

(Hill, 1997; Syrotuck, 1976)

Unaware of the consent of being lost.

Navigational skills and sense of direction almost non-existent.

Tend to wander aimlessly.

Do not respond to whistles or calls.

Good survivability because of tendency to find shelter.

They often seek out a place to lie down and go to sleep – under thick brush, an overhanging rock, a picnic table, inside a car trunk (boot), inside an abandoned appliance, etc.

They are difficult to detect.

They rarely walk out by themselves.

Distance from PLS (km)

Mean:

S.D.

Median:

Range:

25%

50%

75%

Max Zone

Category Characteristics (3-6 years)

(Hill, 1997; Syrotuck, 1976)

Have a developed concept of being lost and will attempt to return home or go back to a familiar place.

They may panic and become further lost as they attempt to ‘find themselves’.

Do not understand the fact that a return trip is needed – their explorations are usually one-way.

Tracks, trails, etc, plus short cuts that may not readily appear as a well defined track or path to an adult.

More mobile than children 1-3 years.

May become lost following an animal or group of older children into the undergrowth or in exploring.

Find Location (87 cases):

Percent

Structure:

Yard (open field):

Drainage:

Woods/forest:

Brush/briars:

Road

Powerline/linear:

Other:

Useful Tactics

Urgent response necessary.

Passive attraction methods are rarely successful and confinement is a low priority.

Air scenting dog teams alongside rapid response teams, and sign cutting teams along main trails.

Thorough searching of high priority areas close to the IPP.

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Children 7 – 12 years

Category Characteristics

(Hill, 1997; Syrotuck, 1976)

Navigational and directional skills are must more developed than 1-6 year olds. They are learning to construct their primitive 'mental maps of their environments which may be highly inaccurate.

Frequently become lost while attempting a short cut to a familiar location.

May become lost during fantasy play, adventuring, etc., and may find the plan and reality confusing.

They may become upset and confused when lost and react irrationally, but may respond more maturely if with a friend or sibling.

Often resort to trail running which may take them some distance form the PLS or LKP.

They will attempt to 'find themselves' though often lack adult tactics.

Distance from PLS (km)

Mean:

S.D.

Median:

Range:

25%

50%

75%

Max Zone

Where to Search?

(Hill, 1997; Syrotuck, 1976)

Tracks, trails, shortcuts – check with friends for 'secret' places and/or favorite places, hideouts or routes.

Landmarks, high points, features, ponds, lakes, streams, drainages, forest edges and clearings.

Any 'known' places, secret play places.

Useful Tactics

Confinement should be a high priority.

Passive attraction methods are rarely successful.

Rapid response teams to high priority areas.

Use air scenting dog teams.

Find Location (87 cases):

Percent

Structure:

Yard (open field):

Drainage:

Woods/forest:

Brush/briars:

Road

Powerline/linear:

Other:

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Hikers

Category Characteristics

(Hill, 1997; Syrotuck, 1976)

They are trail oriented and often become lost when their trail becomes obscured or when they encounter a confusing junction or intersection of trails.

They tend to travel further than other categories.

Sometimes poorly prepared and lack experience of remote areas.

Will attempt to find themselves by trail running or finding a high spot.

May follow 'lines of least resistance' such as a stream, forest edge, etc.

May regress to less effective methods when panicky.

May look for shelter in nightfall or if injured.

(Mitchell, 1984)

Sixty-six percent (66%) are found within 2 miles of PLS.

Ninety percent (90%) are mobile for less than 24 hours.

Thirty to forty percent (30-40%) travel at night.

The majority of these subjects are communicative (eg. they can speak and respond).

Seventy-five percent (75%) followed a trail or drainage at some time while lost.

Distance from PLS (km)

Mean:

S.D.

Median:

Range:

25%

50%

75%

Max Zone

Where to Search?

(Hill, 1997; Syrotuck, 1976)

Tracks, trails, lines of least resistance, forest edges, navigation aids.

Sheltered points.

High ground, lookouts.

Useful Tactics

Make confinement a priority.

Check route plans.

Task clue aware searchers to run trails.

Use small, widely spaced, rapid response teams and air scenting dogs.

Use tracking dogs and trackers from IPP.

Long distances and large search area may be involved.

Consider aerial survey to plot lines of least resistance, trails, navigation aids, and likely spots.

Find Location (87 cases):

Percent

Structure:

Yard (open field):

Drainage:

Woods/forest:

Brush/briars:

Road

Powerline/linear:

Other: