
Search Actions Outline

A guide for planning and
managing a land search

Developed for Mountain Rescue England and Wales
Search Management and Planning Course



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NOTE: This outline is intended to provide a standard methodology for land search operations. The actions are listed in order of how they generally should be accomplished, but this does not mean that all actions be accomplished sequentially. Many actions may be accomplished simultaneously. **Highlighted** action items should be performed and/or reviewed at regular intervals. The letters preceding each paragraph indicate the functions addressed by the listed action: “C” represents command or control, “P” represents planning, “O” represents operations, and “L” represents logistics.

I. Initial Search Planning Phase

A. First Notice

1. [C, P] Identify the primary informant(s), maintain knowledge of their whereabouts, and maintain communications with them.
 - a. Interview the informant, or have the informant interviewed, as early as possible.
 - b. When at all possible, maintain direct contact with the informant. Know where the informant(s) is at all times and maintain access to them for follow-up questions.
 - c. If possible, locate and gather any people with first-hand knowledge of both what has happened and the missing subject(s). Interview these people as soon as possible.
 - d. Document all interviews thoroughly.
 - e. Identify, obtain and protect scent articles, if available.
2. [C, P] Begin the “First Notice” part of the Missing Person Questionnaire (page 1-2).
3. [C, P] Develop an urgency analysis using an Urgency Determination Form and respond accordingly.
4. [C] Formally establish the necessity for a field search operation.
 - a. Document the rationale for this decision.
5. [C, O] Callout initial resources as required.
 - a. Identify objectives for which initial tasks are developed for initial field operations (e.g., hasty search of likely spots, containment, house-to-house enquires, etc).
 - b. Consider dispatch of resources into the field for specific tasks.
6. [C, P] Identify and collect all reference and management materials necessary to perform search management and planning functions
 - a. Search management/planning kits
 - b. Maps, acetate overlays, writing utensils, etc.
 - c. Lost subject behaviour information
 - d. “Preplan” documents, including resource callout lists
 - e. It is best if this material is pre-packed and prepared for use.
7. [C] Assemble management and search planning teams as needed.

B. First Operational Period

1. [C] Identify and assign the Incident Controller (IC; a.k.a., Incident Commander).
 - a. This may be the person who received the first notice, until properly relieved.
 - b. Notify all personnel and communications centres as necessary.
 - c. The IC should try to be present as the interviews of the informant(s).
 - d. Consider assigning someone to serve as the Assistant IC and have them begin documenting the incident history (chronology) including all actions and results of those actions.
 - e. Develop check-in/check-out procedure to account for all arriving resources (comprehensive accountability).
 - f. Brief all arriving personnel on initial information.
 - g. Establish a staging/marshalling area and notify personnel and communications centre(s).

2. [C] Request additional resources as necessary to meet initial objectives and perform initial tasks.
 - a. Consider filling the positions of Public Information Officer (Media Liaison) and Liaison Officer early as conditions require and resources allow.

3. [C, L] Establish an Incident Control Point (ICP; a.k.a., Incident Command Post) and move the IC to the ICP.
 - a. Notify all relevant personnel of this location.
 - b. For extended incidents, it is desirable to provide an ICP which will provide adequate lighting, working space and/or protection from the weather.
 - c. Some incidents may be large enough to have an on-site communications centre to dispatch assigned resources. Commonly the communications centre is adjacent to the ICP.
 - d. Some incidents will require space at the ICP to allow for various Command Staff (Information Officer, Liaison Officer, etc.) and Planning Section functions.
 - e. The planning function is normally done at the ICP.
 - f. Once established, the ICP should not be moved unless absolutely necessary.

4. [C, P, O, L] All unit leaders shall start and maintain a Unit Log (diary of actions).

5. [P] Commence search planning for the first operational period.
 - a. Begin planning for rescue/recovery, suspension, and post mission issues (e.g., demobilization, documentation, etc).

- b. Develop medical plan for incident personnel and search subjects.
6. [P] Identify the Last Known Point (LKP) and/or Point Last Seen (PLS) and mark it on a map. Protect this location.
 - a. The first LKP or PLS becomes the initial planning point (IPP). The IPP serves as the centre of lost person behaviour distance travelled statistics.
 - b. An appropriate map or maps should be used to define and track relevant locations and resource assignments.
7. [C, O] If urgency is high and immediate field operations are indicated, consider immediate deployment of hasty resources to:
 - a. Gather information about physical search area (reconnaissance)
 - b. Perform visual checks of likely routes and spots
 - c. Consider hasty search immediately surrounding last know point and/or point last seen (e.g., trackers, search dogs, visual searchers, etc.) to discover clues.
8. [C] Determine the ending time of the first operational period (ideally 8 – 12 hours from first notice of incident).
 - a. Immediately upon establishing the ending time for the first operational period, the IC for the second operational period should be identified and notified so that he or she knows when to be prepared to relieve the initial IC.
 - b. Make sure to include a “hand-over period” or crossover of shifts so that there is time to exchange information.
9. [C, P] Appoint someone to lead the investigation—if other than the IC and not already being done—and have the person complete the rest of the Missing Person Questionnaire.
 - a. Establish the specific category of the missing person(s) and document it on the Missing Person Questionnaire.
 - b. Locate any relevant information on the category of the lost subject(s) (e.g., Lost Person Behaviour info and statistics) and document this info on the Missing Person Questionnaire.
10. [C, P] Review the determination of search urgency in light of any additional information.
11. [P] Look up the historical and behavioural characteristics/statistics of the subject(s) involved. Identify and mark the following on the map:
 - a. Archival travel distances (from behavioural statistics based on category of subject)—overlay these data on the map as concentric circles.

- b. Theoretical (maximum) travel distances (from speed-distance estimates) for each likely travel route.
- c. Travel assistance possibilities (bus routes, taxi stands, vehicles in parking lot, etc.)
- d. Consider historical data; where and how similar search situations were resolved in the past

12. [O] If the subject is missing from a specific location (e.g., residence, store, etc.), assign one or two individuals (preferably unfamiliar with the location) to perform two thorough (high coverage) searches: (a) inside of the building, and (b) the premises immediately surrounding the building. Assign additional resources to these tasks if the building and/or premises are large and/or complex.

- a. Clue conscious resources are best suited for this task.
- b. First, make sure the “searcher” has the authority to perform this search.
- c. All areas within the building that could hold anything the size of a loaf of bread must be searched visually.
- d. Searchers must be reminded that they are searching for both the subject and clues that may lead to the subject.
- e. It may be helpful to have a member of the investigation unit assist with this task.
- f. Consider return routes to the building/area (e.g., how might the subject get back into the building?).
- g. Attention should be given to less obvious clues such as letters, diaries, computers, mobile phones (text messaging, call logs, etc.), electronic phones (last number dialed, etc.), answering machines, receipts from credit and debit/payment cards, etc.

13. [C, P] Define Operational Period schedule (end of first operational period has already been established) and document start/finish times on Incident Action Plan (IAP).

14. [P] Perform a terrain/geographic analysis. Identify and mark the following on the map:

- a. Any relevant known hazards
- b. Any subject-relevant barriers to travel (least likely travel routes)
- c. Likely travel routes (easily travelled paths; travel aids)
- d. Attractions; things that might attract the subject(s)
- e. Choke points; where likely routes pass through barriers (funnels)

15. [C, P] Identify and manage risk (risk assessment).

- a. Use accepted risk assessment document/procedures if possible
- b. Identify risks/threats to searcher safety, subjects, and operations.
 - i. What should be done if...?
 - ii. What could make things worse?
 - iii. How can potential problems be prevented?

- c. Remove, mitigate, or otherwise manage identified risks (control measures).
 - d. Develop contingency plans as necessary.
 - e. Consciously decide to proceed with the operation only after identifying and managing risks (risk-benefit analysis).
 - f. This may only be done mentally at first, but should be formalized and documented as the incident progresses.
 - g. Consider liaising with a local agency and use their risk assessment systems/forms.
16. [P] If possible, gather several personnel with knowledge of the situation and geography and perform a scenario analysis (at least three most likely scenarios; few is best). Document (eventually) and weigh each possibility.
- a. For each scenario, develop a list of “facts” that would be correct if the specific scenario under consideration were true. As a minimum, include in this list the expected mobility and responsiveness of the subject, and the general search area of the scenario.
 - b. Consider the possibility of a crime and document concerns and suspicions
 - c. Weight each scenarios based on:
 - Which will lead to the death or serious injury of the subject first,
 - Which is easiest/quickest to rule out or resolve, and
 - Which is the most likely?
 - d. Determine if multiple scenarios can be search simultaneously; if so, which ones.
 - e. By consensus, determine how the scenarios will be searched (i.e., this one first, these two simultaneously, all at once [always preferred if resources allow]).
17. [P] Identify regions of probability based on all available information and mark them on the map. The result is the basis for a “probability map.”
- a. Ideally, use the same group that developed the scenarios to identify regions of probability
 - b. NOTE: Regions are based on where the subject is more or less likely to be (how to search is not considered yet)
 - c. Think large; avoid high resolution (probability) when developing regions.
 - d. All regions collectively make up the search area.
 - e. Do not delay hasty resource deployment to accomplish this
 - f. No need for a consensus to establish POA values in each region until hasty resources have been deployed.

18. [P] Some resources are more appropriate for area searching (e.g., dogs, aircraft, etc). If such resources are available, searchable segments must be identified and marked on the map. Such resources must then be assigned to appropriate segments and as a minimum the following information must be collected at the debrief:
 - a. Estimated sweep width (detectability index); average maximum detection range (AMDR)
 - b. Estimate of forward speed of field searchers
 - c. Time actually spent searching in minutes

19. [P] Ideally at this time, conduct a proportional consensus to determine initial POA values of regions.
 - a. Immediately following the development of regions is the best place to perform a consensus because most of the issues relating to subject location possibilities will have been discussed.

20. [P] List the currently available resources, their status, and location on the appropriate form.
 - a. Brief all personnel when possible (incident briefing) on available info.

21. [C, P] Develop a list of objectives for the first operational period to address the scenario(s) being searched.
 - a. Document these objectives on an appropriate form.
 - b. Assure the objectives are SMART (specific, measurable, achievable, realistic, and time-bound)
 - c. Consider overarching priorities such as life safety, incident stabilization, and property/environmental protection
 - d. Consider primary goals such as establishing confinement, wide area initial visual checks, investigation, application of lost person behavior data, publicity, addressing likely spots/travel paths, etc.
 - e. Consider contingencies for things such as medical aid available on scene, accountability of personnel, assuring availability and use of safety equipment, etc.

22. [P, O] Develop tasks that are required to accomplish the developed objectives (for the first operational period).
 - a. Document these tasks on appropriate forms.
 - b. Develop tasks to meet all objectives and do not forget to include tasks that might have already been performed.
 - c. Prioritize all tasks.
 - d. Focus on initial visual checks and hasty searches (“line” and “point” searches); avoid “area” searches until necessary.
 - e. Consider indirect field techniques: establishing confinement, lookouts, attraction, etc.

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- f. Consider direct field techniques: specific location initial visual checks, hasty searches, reconnoitering, trail running, etc.
 - g. Consider investigative actions: protecting/investigating LKP/PLS, interviews, etc.
23. [P] Start planning for the second operational period.
24. [C, P, L] Request additional resources as necessary to meet objectives.
25. [C] Build and develop an appropriate organisational structure. Staff functions as necessary and resources are available.
26. [P] Track resources and their assignments.
- a. Staff the position under Plans of the Resource Unit Leader when necessary.
27. [P, O] Brief and deploy available resources to priority tasks in accordance with the incident action plan (IAP).
- a. High priority tasks first.
 - b. Use briefing checklist
 - c. Thoroughly document all task assignments (use appropriate forms).
 - d. Assign appropriate arriving resources to tasks only after check-in.
 - e. Identify and manage risk—evaluate and manage risk of specific assignment
28. [C, P] Continue with investigation, on and off site as necessary.
29. [P] If not done yet, conduct a proportional consensus to determine initial POA values of regions.
30. [P] As resources return from their assignments, thoroughly debrief them and maintain a written record.
- a. Use debriefing checklist
 - b. Use appropriate debriefing form(s)
 - c. No one leaves until they have been debriefed
31. [C, P] Modify incident action plan for next operational period based on information gained.
- a. IC must authorize changes to incident action plan
32. [P] Prior to end of operational period, prepare a written brief for the oncoming IC using the appropriate form.
- a. Brief the oncoming IC

C. Second and subsequent operational periods

1. [C, P, O] Continue planning and management steps listed for the first operational period as more information becomes available while paying particular attention to:
 - a. The review of search urgency and subsequent modification of operations to reflect changes in urgency
 - b. The search (and re-search) of buildings and/or premises located at or near the LKP or PLS
 - c. The reconsideration of geographic and terrain analysis as it relates to the movement of the subject(s)
 - d. The identification and management of risk in light of additional information

2. [P] If not already started, begin planning for rescue/recovery, suspension, demobilization, and post mission issues (e.g., documentation, critique, etc).

3. [P, O] Continue operations and planning until:
 - a. The missing subject is located
 - Initiate demobilization plan
 - b. The field component of the search is suspended
 - i. Consider continuous limited search (investigation continues)
 - ii. Carefully document decision to, and rationale for, suspending the search
 - c. Resources become available to escalate the search planning and the operational capabilities

II. Intermediate (Transitional) Search Planning Phase

1. [C, P] This phase may commence at any time when the incident managers have either the time or resources to perform the necessary functions.
 - a. The intermediate phase commences when probability is quantified for the first time, usually when a proportional consensus is carried out to establish initial POA values.
2. [P] Consider putting together a search planning “think tank” or “brain trust;” individuals who can focus on the search plan without being encumbered by the mechanics of management.
3. [P] Develop a probability map: put POA in regions. Start by performing a proportional consensus.
4. [P, O] Segment regions and start area searches as necessary.
5. [P] For any area searches conducted, collect information for calculation of POD and POS
 - b. Estimated sweep width (detectability index); average maximum detection range (AMDR)
 - c. Estimate of forward speed of field searchers
 - d. Time actually spent searching in minutes
6. [O] Hasty and other types of searches continue.

III. Formal Search Planning Phase

1. [O] Area searches continue and may expand.
2. [O] Selected hasty searches continue.
3. [P] Compute POD and POS from previous searches:
 - a. Convert estimated sweep width, searcher speed, and time spent searching into POD estimate.
 - b. Apply retrospective POD to POA from consensus to compute overall POS.
 - c. Adjust POA after searches and track overall POS for entire search.
4. [P] Consider a new consensus.
 - a. When significant new information is discovered or when the search area changes
 - b. Not at regular intervals