

Managing the Urban Search

by

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1. Introduction

Managing urban search and rescue operations (SAR) can be amongst the most difficult and challenging SAR tasks the experienced Search Manager may ever be asked to undertake. The usual procedures and information employed during most wilderness SAR operations fail to adequately apply to the typical urban SAR incident. The normal procedures for containment, travel routes, subject behavior and geographical barriers do not readily translate into workable techniques for the urban SAR incident. Couple this with the significant possibility of potential criminal activity, and of large-scale public involvement, and the incident can quickly expand into one that is very difficult to manage in an organized and effective manner.

2. Inter-Agency Cooperation

Although SAR teams and Search Managers are accustomed to working cooperatively with law enforcement agencies urban SAR operations will often require a much tighter and closely-coordinated liaison between the Search Manager and the local police forces. Both the Search Manager and the responsible police personnel should expect, from the moment of mission initiation, to work closely together to produce a unified and coordinated response to the incident. The local city or municipality will also often be involved and may have an important logistic role to play. A unified command team will usually be put in place comprising of the police, municipality, SAR and, perhaps, the state emergency measures organization or equivalent. This unified agency executive, led by the police, will typically provide the volunteer searchers with the government-supported authority to search.

3. Initial Response to the Urban SAR Incident

The initial response to the incident should be rapid, protect the scene, provide a quick analysis and alert of the situation and move to quickly confine the movement of the subject. Both police and SAR units should be deployed rapidly, by day or night, leaving investigations and the implementation of a more structured management team to develop in parallel to the initial field response.

4. Protect the Point Last Seen (PLS)

The Point Last Seen (PLS) itself, including any items in the immediate area, should be cordoned off to protect any potential clues and/or evidence. This may be an initial starting point for a canine team, trackers or may be a crime scene. Ensure that the PLS is continuously monitored to keep the public away. Do not initially allow any persons into the area or permit any articles to be removed. Photographs may be taken providing this does not require entering or in any way disturbing the PLS. Request police investigators, search dogs and trackers to thoroughly examine the PLS.

5. Set up the initial Command Base

A typical initial response to an urban search will usually include setting up a command post at a convenient location fairly close to the Point last Seen (PLS). This base may be a mobile command vehicle, or a building in the area that may be utilized for the initial response to the incident.

As an urban search has the potential for rapidly expanding the initial selection of a command post site should include, if possible, the potential to later manage large numbers of searchers, without the need to re-locate the command post. Placing a mobile command vehicle beside a large public building, such as a recreation center, sports complex, fire-hall or school (when not in

use) will make it easier to manage parking, registration, washrooms, access to electric power and other essentials., should the need to expand the operation arise. Usually, with the co-operation of the police agency and the municipality, it will be easier to gain access to these publicly-owned buildings, and their support services, than for privately-owned buildings.

6. Begin Investigations

Any search incident, and particularly an urban search incident, requires a very thorough investigation of all facts surrounding the incident. In the urban environment especially, the police will usually take a major role in the investigation. The circumstances of loss, current behavior and the previous history of the subject are all important factors in this investigation, as it is unlikely that the urban environment itself caused the subject to become lost. As investigations take some considerable time to complete the search should *not be delayed* while the investigative process is underway. Time is crucial in finding a subject early and alive, so the field response should begin immediately, while the background investigations are undertaken concurrently.

It may take many hours, or even days, before the investigation provides much new information to assist the search planning group. Useful sources of information may include police information databases, social services, hospitals, public transit, and taxis. As this information does become available the type, scope and/or location of the search incident may have to change, perhaps a number of times, to make the best use of the information and the available search resources.

7. Assess the Possibility of Criminal Activity

The initial response to the urban SAR missing person incident should include an immediate assessment, with the police agency, of the possibility that this incident might be the result of criminal activity. The type of response a Search Manager, and the police, will apply to the incident will depend, to a significant extent, on whether the incident is suspected to be either criminal or non-criminal in nature. Obviously the type of subject, their previous history, their current behavior and the circumstance of the incident itself will all be used to determine whether criminal activity is suspected. It is imperative that this judgment be made very carefully and very early in the investigation, to ensure that no opportunities are lost to recover the subject alive.

If this incident is considered to involve criminal activity then an immediate police response will be needed to assist with the containment of the area and the execution of the search. If the assessment does not initially indicate the probability of criminal involvement then the search may be undertaken as a 'normal', i.e. non-criminal, urban search.

8. Response to Non-Criminal Urban SAR Incidents

The usual types of non-criminal urban SAR operations typically will include searching for: Elderly Walkaways, Alzheimer's Patients, Despondants, Missing Children and the Mentally Retarded. It is interesting to note that, to some extent, all of these categories could be considered as being applied to persons with some form of mental deficit, compared to a 'normal' adult. This makes sense when we consider that the urban environment is built to be 'friendly' to the mentally and physically mature, healthy adult.

Our planning strategy for a non-criminal urban SAR incident should, therefore, take into account the mental state and current mental capacity of the missing person. Fortunately some good

behavioral studies by Ed Cornell and Don Heth, Ken Hill and by Robert Koerster provide excellent behavioral data around which to formulate an urban search plan.

The behavioral data for Elderly Walkaways, Alzheimer's Patients, Despondants, Missing Children and the Mentally Retarded generally indicate that, typically, these types of subjects do not usually travel very far from the Point Last Seen (PLS). This data is not quite so robust in the urban environment as most of the collected data is based on persons who are lost and wandering, i.e., on foot, while in the urban environment vehicular transportation may be used to dramatically increased the distance traveled by the subject. Although vehicular transportation does not appear to have been used in most of the statistical cases it certainly has been known to occur and so must be considered in the search plan.

9. Behavioral Search Strategies

The specific search strategy undertaken will depend, to some extent, on the expected behavior of the type of subject that is missing. While, in the wilderness environment, most missing persons are unintentionally lost this is not nearly as often the case in the urban environment. Both children and adults may runaway from home, while despondents and fugitives from justice will also intentionally flee. Some examples of subject-specific search strategies, that are not limited exclusively to the urban environment, might include:

9.1 Elderly Walkaways:

Search the current residence, nearby streets, parks and shopping malls, previous residences and workplaces. Due to the statistically high risk of medical problems and increased susceptibility to inclement weather, a dedicated medical response team should be placed on immediate standby.

9.2 Alzheimer's Patients:

This group can be expected to become a serious problem, as the number of Alzheimer's Patients is expected to increase dramatically during the next decade. A typical response for this type of subject would include searching the residence and direction of travel directly away from the residence entrance. Search any bushes, creeks, briars, fence-lines or other natural or man-made obstacles that might stop the direct progress of the subject walking away from the PLS. Previous homes, workplaces or other likely 'haunts' of the subject, during earlier years, should also be searched. Obviously thorough investigations will be necessary to uncover this type of personal background information.

9.3 Despondents:

Despondents and potentially suicidal subjects will typically not travel very far from the PLS. Therefore a thorough search within a fairly short distance, say 1 to 2km, from the PLS might be successful in finding the subject. Somewhat secluded areas, such as quiet parks and urban woodlands may be attractive to the despondent attempting to hide from public sight. Searchers should be prepared to look for the subject, both lying on the ground or hanging from a tree. Deep or fast-moving rivers running through urban areas have been used as a means of committing suicide and should be searched by both boat and shoreline search teams. For the despondent type of search the common tactic of calling out the subject's name should probably not be done – as this may drive the subject further away from the searchers, and the public, that they are typically trying to avoid. Despondents may also want to hide within the urban environment, so, locked rooms as well as open areas and buildings should all be checked. The despondent may have entered a room and locked the door behind them.

9.4 Drug-Affected:

If the subject is suspected of having taken drugs, including alcohol, then it is quite possible that he/she will succumb fairly rapidly to the effects of the drugs. A physician's advice should be sought to determine what effect the drugs would have on the subject's physical and mental condition, how this might effect the movement of the subject and then this information used to determine the size of the search area. In one case a suicidal young woman took an overdose 'cocktail' of drugs that, the physician thought, would render her fairly quickly incapable of travel. This was confirmed when woman was found alive, a few hours later, only a few hundred meters from her home, resting, in the dark, against a tree.

To respond to the possibility of drug-induced incapacity the search strategy for despondents and drug-affected persons should probably include an immediate urgent response and the on-scene presence of a medical unit, based on the assumption that the subject is at high medical risk

9.5 Missing Children:

Young children do not have a well-developed sense of direction and may become lost en-route from one known location to another. They may also take 'short-cuts', hide in 'forts' or other adventure areas, perhaps only known to themselves and their friends. Alternatively they may become lost by either hiding, or becoming trapped, in a well-hidden or confined space. The search strategy for a lost child should probably include searching all the domestic hiding places – in closets, the attics, under the bed, as well as in car trunks, storage sheds, attics and any other structure, natural or manmade, that could trap or conceal a child. Family and friends, including other children, should be interviewed to try and locate these possible play areas, short-cuts and hiding places. Calling out the child's name, or nickname, in a friendly manner may elicit a response, but it is quite possible that they may be too scared or confused, at least initially, to answer.

9.6 Mentally Retarded:

The Mentally Retarded group are in some ways similar to children in their response to being lost and will probably not respond to a searcher calling out their name. They may tend to hide, or simply get themselves into a difficult, or trapped, location, due to their inability to recognize the hazards of their environment. It is quite possible that they may travel much further than children, perhaps even considerable distances, as they will often have the physical development of a healthy adult. The search strategy for this type of subject should include searching any locations that might entrap or otherwise become a hazard for the subject. These locations would include ditches and creeks, culverts and steep banks. Travel routes, such as roads and pathways, and the areas immediately adjacent to them, should also be searched. Their caregivers should be consulted to determine the subject's mental aptitude, behavioral characteristics and the likelihood of their responding to searchers and to their name being called.

10. Response to Criminal-Abduction and Fugitive Incidents

If the initial examination of the incident has indicated either a criminal fugitive or a potential abduction, then the police role and response will have to be much greater than for a normal, non-criminal, urban SAR incident. The initial response to fugitives from justice may be considered somewhat similar to that for criminal abduction cases. Historic information appears to indicate that an abductor is likely to quickly remove their victim from the scene of the abduction (PLS), commit the crime and then murder the victim very soon (e.g. ½hour) after the abduction. They may also travel some distance, perhaps ½hour to 2-3 hours drive away, before disposing of the body, typically in an isolated or 'abandoned' location out of public sight. U.S. police data

indicates that 63% of the time the body is found within 2.4km/1.5miles of the victim's home and within 60m/200ft of the murder site.

To preserve the highest probability of recovering the abducted subject alive it is essential to act quickly. The immediate goal should be to promptly close all of the 'exit routes', particularly highways, out of the area. The police should be asked to *immediately* setup roadblocks and check all vehicles leaving both the local area and the region. This may cause considerable traffic congestion but this action is still strongly recommended, as vehicles have been used to transport all three of the victims in the abduction-murder cases that have occurred within our region. It may also have the major benefit of capturing the abductor, which happened in one local case, as well as perhaps saving the life of their victim.

If some time has elapsed since the notification of the missing person then roadblocks will need to be set up both locally and at some considerable, regional, travel-distance away from the PLS. It is also advisable to quickly notify the media that a major search is underway and announce that vehicles leaving the area are being searched. This may discourage the abductor from attempting to leave the search area or cause him/her to drop off the subject unharmed. Provide the media with a description of the missing person and, if possible, a picture. This information should be distributed by the media as soon as possible, as the public, and not the searchers, or even the police, are often responsible for providing the first clues as to an abducted person's whereabouts.

A highly visible police and SAR presence should be maintained within the local neighborhood of the abduction as this may force the abductor to stay 'holed up' within the local area. One young girl's life was saved because the abductor was too scared to move out of his house into a police and searcher-filled neighborhood.

In at least four cases of child abductions the abductors lived in the immediate neighborhoods in which the children were abducted. In these specific cases, the police will probably want to perform a door-to-door interview with each local residence. Background checks of the occupants and carefully recording the comments of neighbors have proven to be invaluable in identifying these suspects. Although police do not generally have the power to search a residence without a search warrant, sometimes clues provided by the searchers, such as a SAR dog alert, have helped the police obtain a search warrant – and subsequently saved a child's life.

In the case of a suspected abduction the normal rules of subject behavior profiles may frequently fail to apply. Most subject behavioral data applies to persons lost and/or voluntarily wandering, usually on foot, away from the Point Last Seen. This type of self-propelled, subject-controlled movement will usually not be applicable in the case of a criminal abduction. While the response to this type of incident should probably include the possibility of a non-criminal, local 'wandering' subject, the high likelihood of a vehicle-based abduction requires that we significantly expand the potential search area, and move quickly to contain the abductor.

11. Define Geographic Search Areas:

The urban search, and particularly the abduction-based urban search, often needs to be implemented at three distinct geographic scales; Local, Regional and Exit Routes.

11.1 Local Searching.

Local searching is typically undertaken out to a distance based on the statistical wandering behavior of a lost person, usually travelling on foot. This might include a *local* search radius

from perhaps 0.4 to 5+ km, depending on the subject type. Consult statistical behavioral data tables to determine these distances.

11.2 Regional Searching.

If the subject has been abducted it is likely that they may have been transported some distance before being hidden, perhaps already deceased, by the abductor. This means that the search area will have to be expanded considerably beyond the distance determined for local, subject-‘wandering’ behavior. This expanded search area may be best described as a Regional Search. From the limited amount of case information available (4 cases) it would appear that this regional search area should be extended out to major geographic and man-made boundaries, perhaps ½hour to 2-3 hours drive away from the Point Last Seen. Typical outer boundaries for the region could include freeways, rivers, shorelines, mountain ranges, railways, political borders and any other major feature that would naturally limit the vehicle-based movement of the abductor and victim away from the Point Last Seen (abduction site).

11.3 ‘Concealment and Disposal’ Sites

Search planning for both the Local and the Regional search area should include identifying all the likely areas where a person could be concealed or a body disposed of. These ‘concealment and disposal’ sites generally appear to be locations that are both well hidden from public view and also easily accessible by car. It is unlikely that the abductor would drag a body more than a very short distance, say 50-100m, from where a vehicle could be parked. Typical examples of ‘concealment and disposal’ sites would include: unoccupied or abandoned buildings, homes and structures, secluded side-roads, cul-de-sacs, tracks leading to concealed locations, dumpsters, riverbanks, bushes, road-side thickets, parklands, lakes and industrial sites. Abandoned vehicles and unused buildings, including their ceilings and basements, should be given special attention as the subject may be concealed there, alive and held captive, for some time.

The regional fire, police and ambulance services, as well as forestry, fish & game and parks officials should all be placed on high alert and asked to be especially observant when conducting their business or when responding to incidents shortly after a suspected abduction. In one case the abductor attempted to destroy the evidence of the murder by setting fire to the abandoned mobile home in which the body lay. When the local fire department responded to the incident they found the remains of the murdered girl.

In another case an observant park official noted a distinctive car cruising through the park, from one site to another, very early in the morning. The missing child’s body was later found on the shore of a lake within that park. A few weeks later, after a picture of the suspect’s car was broadcast to the media, the same park official recognized the distinctive car. Thanks to this tip the car’s owner, a resident in the same apartment block as the abducted girl, was later charged with her abduction and murder.

Neighboring SAR teams not immediately involved in the incident, but within the region, should also be placed on high alert and asked to examine all likely ‘concealment and disposal’ sites within their normal response areas.

11.4 Exit Routes

A common theme through a number of abduction cases appears to be the rapid transportation of the victim, by vehicle, away from the location of the abduction. This typically means that the abductor and for some time, the victim, will be driven rapidly away from the PLS. Either main highways or more remote secondary roads may be used by the abductor attempting to quickly

leave the abduction site. These 'Exit Routes' should be quickly identified and, if possible, road blocks rapidly set up to prevent the abductor from leaving the region. Given the estimated lead time the abductor may have it may often be necessary to set up these containment road blocks at a considerable distance from the PLS, perhaps even a few hours drive away. There is some evidence that an abductor may attempt to travel (escape) towards a neighboring city. This gives the opportunity for roadblocks to be setup on the main arterial inter-city highways. These identified exit routes may extend for a considerable distance, perhaps even hundreds of kilometers, from the abduction site.

11.5 Exit Route Survey & Search Methodology:

In addition to setting up road blocks on all the 'Exit Routes' these routes should also be carefully examined, by assigned search teams, to identify:

- i. All likely turn-offs the abductor might have taken, that are visible from the road, and that appear to lead to secluded 'concealment and disposal' locations.
- ii All buildings, bushes, creeks, bridges etc, visible and easily accessible from the road, where an abductor may choose to conceal a person or dispose of a body.

Search Methodology:

1. The Exit-Route road should be divided into assignment sections (lengths) that can be examined by a slow-moving, vehicle-based search team, typically consisting of three to five people – a driver and two to four searchers.
2. The search team should undertake their assignment using the same probable direction of travel as the abductor (typically away from the abduction site).
3. The team should drive their section of the road at very slow speed (with vehicle flashers on) and document every 'likely spot', whether it is a turn-off or an identified potential search site.
4. Use the vehicles distance gage from an obvious starting location to help identify each location along the road.
5. The searchers should carefully examine each identified location before moving on towards the next likely location.

To increase safety the searchers should all wear high visibility traffic vests.

Note: If there is only time for an Exit Route Survey - which can cover a much longer distance than an Exit Route Search, then these 'likely spots' should be very carefully identified and documented, so that the follow-up search team will be able to quickly move to each of these pre-identified search sites.

It may appear that considerable emphasis is being placed on searching at locations, both regionally and beyond, i.e. along the Exit Routes, that are clearly well-removed from the local search area. This may cause concern for search managers accustomed to searching almost exclusively within a local, subject-behavior-based, search area. While it is imperative that this local search area still be thoroughly searched our experience has been that, in three of four abduction cases, when found *the victim and abductor were NOT within the local search area*. We should therefore be sure not to place all of our search resources within the local search area, as the profile of abductor-victim behavior indicates that they are more likely to be found, within normal SAR response times, not locally but either regionally or beyond.

12. Create Search Status Maps

These three types of geographical search areas; Local, Regional and Exit Routes, will make it likely that at up to three scales of search status maps will have to be used simultaneously to monitor the urban, and particularly the abductor-based, urban search. In practice it also often happens that the search status maps in use may be changed, perhaps two or three times during the incident, as increasingly more detailed maps become available to the planning team. This makes it imperative that very detailed assignment forms and status maps be kept, to ensure that their information can be accurately transferred from one status map to another. If it is possible, through careful pre-planning, to avoid having to replace the current (working) status map, then this should be done, as considerable time may have to be spent transferring the data and getting the planning team 'up to speed' with the newer status map. On a major search this information transfer may take an hour or more and cause significant delays in the deployment of search teams.

It should also be noted that there may be an unrecognized tendency to restrict searching to only those areas that are within the boundaries of the currently available map(s). The search manager should be aware of this natural but often unnoticed tendency, and make a special effort not restrict his/her thinking to the confines of the currently-available maps.

To maintain the clarity and chronology of the status maps, each map should be covered with a mylar overlay, registration-marked with the boundaries of the map and individually date-stamped. Add a new, dated, mylar overlay for each day or operational period. A simple coding system, such as hatch marks or code letters, should be used to mark the current status, for example; allocated, underway or completed, of each map assignment.

13. Urban Search Tactics

Many of the tactics applied to wilderness searching may also be applied, with occasional modifications, to the urban search. Type 1 searching on foot, dog teams, tracking teams, grid-searching of open lands, including sound sweeps, door to door searching, bike patrols, vehicle patrols, helicopters and containment teams may be among the resources applied to urban search assignments. Dive teams, boat teams, on rivers or lakes and, perhaps, horse teams and ATV teams may also be applied, especially at urban/rural interface areas.

14. Public Area and Private Area Searching

Searching in an urban environment can be a very sensitive issue. If possible all searchers should carry personal ID and wear a searcher's nametag, so that the public will know the searchers are *bona fide*. Searching public property is usually not a major problem, other than gaining access to the buildings and property, providing that care is taken not to cause any damage. Private property has clearly to be respected, yet there is still a pressing need to find the missing person. A very visible police presence may help by giving the search teams the appearance of authority. Searchers should distribute flyers and encourage residents to search their own homes, buildings and grounds. Search teams should not search on private property without the express permission of the owner. If the team suspects more than a normal reluctance by the owner or occupant to cooperate with the search then this should be quickly passed on to the police for further investigation.

Locked areas, including buildings and rooms, are also an issue. Were these areas always locked and therefore no access was gained, or did subject enter (voluntarily or under threat) and then the

door was locked behind them? All locked areas need to be searched. Building managers should be asked to cooperate with the request to unlock these areas.

15. Define Urban Search Assignments

Urban search assignments may typically be broken down into the following general categories:

- Pre-planned Assignments
- 'Scout-Team'-Identified Assignments
- Police-Identified Assignments
- Public-Identified Assignments
- Search-Team Identified Assignments
- Incomplete-Assignment Re-assignments
-

The pre-planned assignments should be created by the planning team before the next operational period and then be distributed to the search teams as they arrive. The Search Priority principle may be used to distribute these assignments according to their priority ranking. The subsequent types of assignments will probably all have to be created 'interactively', while the search operation is underway. The planning team should therefore be flexible and prepared to move quickly to create and disseminate these new 'real-time' search assignments as they are identified.

15.1 Door to Door Search Assignments

Experience has indicated that local-scale door-to-door interviewing is very time-consuming and may not, initially, be the most productive use of the searchers time. During the day many people are not home and after dark, or say, 9pm, many people will not respond to, or resent, a knock at the door. During the initial hours or first operational period of a search it may be more effective to quickly relay the same missing-person information via the media and follow that up with a printed flyer, delivered by the search team as they search, but without interviewing, door to door. This way the searchers can then spend their time more productively, checking yards, alleyways and public areas and cover a lot more ground. Of course the police may still want to conduct a door-to-door interview in the immediate vicinity of the PLS, especially if abduction is considered a possibility.

During subsequent operational periods some local door-to-door interviewing may become warranted, however this should probably be performed only after door-to-door yard, alleyway and public area searching has been completed. An ICS Urban Search Log form should be used to record, house by house, which houses have been visited, flyers left, yards searched, occupants interviewed etc..

15.2 Assignment Size

One of the major problems facing the urban-search manager is how to define the assignment search areas. The large geographical scale of the potential search area can easily appear overwhelming, as a very large number of area-search assignments will probably have to be identified. The typical North American urban grid system of roads makes for convenient assignment search area boundaries that are easily identified and rapidly located. Many municipal urban maps are also marked with survey gridlines, which make it easy to quickly define large search areas.

Determining the size of assignment search areas can be quite tricky and depends to some extent on the area density of buildings and residences. For a typical row of single-home residences on 66-foot wide lots a convenient assignment search area might be four blocks 'wide' by four

blocks ‘tall’ This type of area takes approximately 12 to 15 minutes to search each yard, without entering any buildings or vehicles. More open-density built-up areas may be defined up to, say, 500m by 500m, and perhaps even larger for open parkland. The general goal should be to create assignments that take no longer than 3-4 hours to complete. This allows experienced SAR teams to perform one or two assignments in a day and also permits somewhat manageable search assignments to be undertaken by teams composed of a large proportion of public volunteers, who are unlikely to complete longer search assignments. If, during the search, a number of teams return with significant portions of their search areas incomplete then the assigned search areas are probably too large and should be reduced in size.

15.3 Assignment Naming

Consecutively numbering area-search assignments, especially utilizing the urban grid system, appears to be a quick and orderly way of describing search area assignments. Unfortunately this numbering system tends to break down when actually used during the search. If new search areas are later defined beyond the borders of the currently numbered search areas then the numbering system quickly becomes confusing and unorganized. If assignments are named by numbers or characters, e.g. ‘B2’, and this is used as the name on the assignment form then, if the status map becomes lost or unavailable, the assignment search area becomes unrecognizable. Worse, the assignment form itself cannot be used as a stand-alone document of where the searchers are to go, or, after the search, where they have been. On a large multi-day search this can cause significant documentation problems. Although it initially takes a little longer to specifically describe each geographical search area this is the recommended approach for naming search assignments. A simple urban assignment name such as ‘120 St to 124 St, 64th Ave to 68th Ave’, may be cryptic but it is clearly recognizable on the assignment form, debrief form, status map and software listings, with out any need for additional cross referencing. As a general rule search assignments should be geographically described on the assignment form and also clearly marked on the searcher’s map. If more than on assignment is marked on their map – often a great convenience when planning assignments - then the specific assignment allocated to the search team should be hi-lighted in color, to minimize any possible confusion.

15.4 Assignment Timing

Another goal of the search manager should be to maximize the proportion of time the search teams spend actually performing search operations while minimizing the ‘unproductive’ time spent in registration, briefing, transportation and eating meals. A careful balance has to be struck between the length of the assignments and the time spent travelling from and returning to base for meals and briefings between assignments. If it is practical to take and/or carry meals out to searchers and re-assign teams to new assignments and debrief without returning to base then this can be very effective at increasing the amount of productive search time. On small to moderate size searches this may be practical but will probably become impractical on very large searches. In this case it may be reasonable to give the afternoon search teams somewhat longer assignments, rather than have them return fairly early to base and not make use of the remaining available search time until dark. An experienced search manager will be able to have most of his/her search teams report back to base within half an hour of dark.

16. Estimate Manpower Requirements

Estimating the manpower requirements for an urban search is a fairly difficult task. In a perfect world, the Planning Officer creates all of the pre-planned assignments, usually the night before, and totals the number of searchers required, assuming that the search teams may perform two 2-4 hour assignments within the next operational period. This total is then used as the starting point for recruiting searchers and the public, to assist with the operation. In practice it is quite likely

that a large number of SAR/Agency personnel within the region, and perhaps beyond, will have to be notified many hours before the next operational period is due to start - and well before the planning process is completed, so a little early manpower 'guesstimation' will often be required.

An urban search may use larger teams (for example in urban parks) than wilderness searches, depending on the type of ground to be covered. While the initial response may only employ perhaps 20 or 30 searchers the urban environment can easily create a huge number of search areas, fifty to one hundred, or more, are not uncommon. So, assuming 5 to 10 searchers per team, and two area-search assignments per day, we can expect to require 125 to 500 searchers to complete all these assignments in one day. The big unknown factor in the urban search is the extent of the public's involvement. If large numbers of public volunteers are expected to participate then at least one SAR-trained person will be required to manage every 5 to 10 untrained public volunteers. If the nature of the search is unlikely to attract the public's attention then all of the search personnel will have to be recruited, well ahead of time, from the SAR community.

If the incident has attracted significant media attention, such as in the case of a child abduction, then the initial response will rapidly expand and hundreds of public searchers will probably volunteer to help with the search. Experience has indicated that 200 to 500 public volunteers may be expected to 'spontaneously' volunteer for the search during the first day or two. If a direct request for public assistance is made by the police, through the media, then 1,000 or more public volunteers may be expected turn up to assist with the search. To manage these large numbers of public volunteers a large core of SAR/Agency personnel will also be required. A reasonable estimate is to request approximately 10% to 20% SAR/Agency volunteers to manage the incident and lead the public in general search assignments. So, if 1,000 public are expected to volunteer, then you will need approximately 100 to 200 SAR/Agency personnel, to provide one team leader per 5 to 10-person search team. This is a very important requirement for a well-managed search, and should be recognized and planned for as early as possible.

Remember that with a large number of simultaneous assignments underway the demand on portable radios will also be very heavy. If 100 assignments are to be performed in one day, assuming that two assignments can be completed in a day, then approximately 50 portable radios will be required for the search teams alone - not including all of the command and logistic staff's radio requirements.

17. Deploy Searchers to their Assignments

In an urban environment it is often convenient, during the initial response, to have the search teams use their own vehicles to move to their assignments. To minimize any confusion the search team should be given two maps: one of their assignment and, if necessary, a second map marking the route from the base out to and back from their assignment. On a moderate to large-scale search transporting the searches back to base can become a logistic nightmare, especially when hundreds of public searchers are involved. If possible the search assignments should be designed to return the searchers to their vehicle, left at their assignment's starting location. A little forward planning before the assignments are undertaken can save a lot of transportation headaches that appear when the assignments become completed.

18. Preparing for a Large-Scale Search Operation

If the selection of the initial command post location was well chosen then there should be a busy, but reasonably smooth, expansion to the expanded command post facility. If the initial command post site has to be moved to a different location to accommodate the large-scale search then significant confusion, interruptions and delays to the SAR response can be expected.

19. Setup expanded Command Post (CP) Facilities:

19.1 CP Planning Facility

The planning section for a large-scale urban search will usually need a reasonably large room in which to operate. A mobile command vehicle will probably not have sufficient room for this expanded planning activity. The planning section will need a heated room with plenty of wall space on which to mount status maps, enough room for a number of large worktables and space for a few whiteboards, which will be used to display planning and status information throughout the search. Electric power and phone lines will also be required. Although not essential windows facing the rest of the command post facilities are desirable, to permit easy visual monitoring and a 'reality check' on the execution of the other command post functions.

19.2 CP Greeting Area

The layout for a planning room might typically include a 'greeting' area, close to the doors, where people can come into the planning room to talk to the planners, without having to walk into the main area where the planners are actually managing assignment paperwork and monitoring status maps. Handouts, such as search maps, incident briefing notes, missing person flyers, copies of the current ICS structure, important radio frequencies and telephone numbers etc., can be kept at this greeting area. This area can also act as a 'buffer' zone, and may be used to keep unauthorized persons from entering the main planning areas.

19.3 CP Mission Information Area

Next to the 'greeting' area would normally be the main mission information area where the planning information is kept and the assignments are created. The worktables and adjacent wall area are used to display the information currently known about the subject and the incident. This displayed information would typically include a profile of the missing person, contact information for key agencies and personnel involved in the incident, a large ICS organizational chart and postings of any clues, or information required, that will help focus the direction of the mission.

19.4 CP Mission Status Area

The mission's status maps will usually be placed on the walls next to the assignment-creation worktables, so that they may be easily cross-referenced to each other. A section of the wall-space, typically adjacent to the search status maps, should be reserved for posting the active assignment forms. The mission status area would also typically include such information as the future availability of other search resources and physical equipment, as well as any scheduled meetings and briefings.

19.5 CP Communications Area

The location of the command post's communications area can sometimes be difficult to determine. The radio system needs to be close enough to the planning area so that planning staff can easily obtain the information they require, while not being so close that management group

are overwhelmed by the noise and sheer volume of radio traffic that a major search will generate. Although not commonly used headsets may be worn by the radio operators to reduce the level of distracting ambient noise.

Most organization's base radio systems are built into their fixed buildings or mounted in their mobile command post vehicles. A reasonable compromise seems to be to handle most of the radio traffic and communications-logging out of these existing base radio systems while leaving a few small hand-held radios, on the frequencies required, in the command post room. This way the command staff can 'filter-out' all but the essential radio information they need to receive. If this is done then the communications vehicle should be placed very close to the command post room and a Communications Officer assigned to ensure that all the important information received, and any problems that may arise, may be easily relayed, in person, from the communications vehicle to the command post.

20. General Assembly & Briefing Area

To ease the 'traffic flow' of hundreds of searchers the general overview briefings to all searchers should usually be conducted in the main public assembly area, which should normally be located immediately adjacent to the registration area. This general briefing area may typically be a school hall, gym or other very large room. A number of loud hailers should be assigned to the Briefing Officers so that they more easily communicate with the crowd of searchers. A section of the assembly room may be set aside for the media so that they may record these overview briefings as they occur.

21. Assignment Briefing Area

A small section of the general assembly & briefing area, or a quieter location close by, should be designated, with signage, as the Assignment Briefing Area and used by the Briefing Officers to brief the search teams on their specific assignments.

22. Debriefing Area

The search team Debriefing Area should be setup fairly close to, but not in, the planning area. There should be a number of Debriefing Officers allocated to debrief the search teams as they return from the field. As each assignment is debriefed the 'closed' assignment form is returned to the mission Status Officer who will remove the closed assignment from the mission status wall. Any gaps in coverage or suggested new assignments will be passed on to the Planning Officer to create new search assignments. Later in the day a large number of teams will want to be debriefed, so expect to setup three or four tables to debrief this 'bulge' of search teams as they return from the field.

23. Signage Requirements

During a major urban SAR incident three types of signage will normally be required:

23.1. Directional route signage

We have found that corrugated-section, grommetted plastic signage, of the type frequently used by real estate companies, to be very convenient for directing public and searchers to the command post. 2ft x 1ft 'SAR' or 'Search & Rescue' signs and accompanying 1ft x 1ft directional arrows work well for most incidents. These signs can be taped, nailed or tied, through the grommets, to utility poles or other road-side structures.

23.2 Command Post signage

A mix of corrugated plastic signs and large vinyl banner signs work well around the base camp. Typical signage includes 'Command Post', 'Registration', 'Briefing', 'Parking', 'Communications', 'Planning', 'First Aid', 'Washrooms', 'Food' and 'Transportation'.

23.3 Briefing signage.

Briefing signage is generally incident-specific and is conveniently prepared using a number of whiteboards that are distributed around the command post.

- These briefing whiteboards should be used for provide the following information:

- 1. Instructions for Checking-In searchers
- 2. Minimum equipment requirements for searchers.
- 3. A detailed description of the missing person.
- 4. A basic description of the incident.
- 4. The ICS command structure of the management team.
- 5. The locations of briefing areas, food, washrooms etc.
- 7. Instructions as to where to receive assignment briefings.
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24. Parking Requirements

The parking facilities available for the urban search should be considered carefully when the command post site is being chosen. Obviously what is preferred is a large parking lot or open ground, preferably that can be secured, adjacent to the command post. This is an important requirement and may have to take precedence over having the command post located very close to the Point Last Seen. Public buildings are convenient in this regard because they usually have fairly large parking facilities. If this is simply not practical in a crowded urban environment then the police should be asked to block off roads and provide parking areas along streets adjacent to the command post for the duration of the incident.

25. Helicopter Landing Sites

It is quite likely that helicopters will be used to assist in any large-scale urban SAR incident.

They can cover a lot of ground very quickly and are also useful for identifying additional search areas that might not have been recognized from the ground. The landing site for the helicopters should be some considerable distance from the command post and the general public. While it is often convenient during a normal SAR incident to place a helicopter staging area in a parking lot near the command post special consideration should be given to the risk, in the urban environment, of the uninformed public coming too close to these dangerous machines. A separate landing location, a short drive or walk away, may be safer. Flagging tape is not recommended to mark off the helicopter landing zone as it may come loose and catch on the rotors, with possibly disastrous consequences. Use physical barriers and traffic cones at some distance from the landing site to keep the public away. Of course a dedicated helipad landing manager should be assigned to ensure safety and monitor all incoming and outgoing flights.

26. First Aid Requirements

During the initial hours of a search an ambulance may be requested to be stationed near the command post. This is very convenient for treating both injured searchers, or the missing person, should that person be located. If there is any potential of medical risk to the subject, such as from an attempted suicide, drug overdose, frail elderly people or of currently inclement weather, then it is a good idea to have an ambulance stationed by the command post as soon as the search begins.

As the search incident expands a dedicated first aid team should be assigned and placed at an easily recognized location near the command post. The first aid team should be clearly distinguishable, typically by wearing a uniform or distinctively colored ICS vests. This team will treat the usual minor injuries that can be expected to occur whenever a large number of people gather in one place.

27. Security Issues

When many hundreds of public volunteers gather to assist with the search there will be a need to provide some security to the incident. Theft of easily removable equipment may occur and often the SAR personnel will be too busy managing the incident to pay much attention to security matters. A quartermaster should therefore be assigned to keep track of all SAR equipment, who it is loaned to and ensure that this equipment is returned.

Generally the public will be well behaved and eager to assist with the search, however frustrations, such as queuing too long to register, waiting too long for an assignment, or simply running out of food, may cause tempers to flare. In these instances a clearly identified security team will help to keep the situation under control. During a large incident there should always be a police presence, however the police may be unwilling, due to their own staffing limitations, to dedicate their own personnel to provide site security. Either volunteers, or a professional security company, should be used to maintain site security.

If the search is predicated on a criminal abduction there is a possibility, based on slight anecdotal evidence, that the perpetrator may return to the scene and volunteer to assist with the search. This is perverse behavior but, in many cases, the perpetrator does live very close to the person they have abducted and so could conceivably volunteer to 'assist' with the search. For this reason all public volunteers assisting with an abduction-based search should be watched closely for any unusual behavior. SAR/Agency team leaders should be briefed of this fact and told to carefully observe their search team members.

The police may wish to take the list of registered volunteers and run checks through their databases. This is why the registration name and date of birth fields are important, as this speeds up the database searching process.

28. Food Requirements

While a search is reasonably small food may simply be ordered from local restaurants and brought to the command post. As the search expands a social organization, such as volunteer emergency social services, may be employed to feed the searchers. As the scale of the search expands again to many hundreds of searchers then a mobile catering organization will be required to feed these hundreds of volunteers. The Salvation Army and professional mobile catering companies will usually be able to fill this role.

If the incident attracts much media attention then it is quite likely that the local public, grocery stores and restaurants will, without being asked, donate food to the search. This is a great benefit that can lift the spirits of the searchers immensely. There may be some concern when food is donated by private individuals as the care taken with food preparation will be unknown. Discretion and caution should be used when accepting food from a well-meaning general public, as the overall health of the volunteer searchers should be the primary concern.

29. Restrooms

The selection of the command post site should include checking that there are an adequate number of restrooms available for the expected number of volunteers. If there are not, or the site location does not have any restrooms, then a number of portable washrooms ('port a potties') will have to be ordered. Sometimes there can be a few hours delay in receiving these portable washrooms so, to avoid any inconvenience, they should be ordered fairly early on in the incident.

30. Command Group ICS Structure

The Incident Command System (ICS) is the de-facto standard for managing large incidents and should be employed by the command group for the urban search. While this system is commonly used by SAR teams on smaller searches it must be applied in a more rigorous fashion when managing an urban SAR incident that may rapidly expand in size. Smaller SAR operations, typically managed out of a single Base room or command vehicle make it easy for all command staff members to recognize and know where the other members are, and so a somewhat informal process (for example no ICS vests or nametags) generally works reasonably well. During a large urban SAR mission this informal approach will not be adequate.

The urban SAR incident will probably have many more command staff and cover a much larger command post area than a typical wilderness SAR operation. To ensure that the ICS system operates smoothly in this expanded environment the following guidelines are recommended:

1. All ICS command staff should wear properly labelled ICS vests. If possible these should be color-coded for different types of functions e.g., planning, first-aid, briefing, transportation etc.
2. All command staff should wear nametags, displaying both their name and their ICS command role.
3. A large, clearly visible ICS organizational chart should be posted prominently at the command post.
4. The ICS organizational chart should display, along with each person's name and ICS role, their radio callsign and cellphone number. This is important as, when crowds of hundreds of people are milling around, it can be difficult to locate or contact the command staff members.

31. Incident Commander

The Incident Commander on a major urban search is likely to be a senior police officer responsible for missing person's in the local jurisdiction. This person will probably spend much of their time liaising with other members of the police forces, the SAR teams planning group, municipal officials assisting the incident and in giving occasional media briefings. Their general goal is to provide clear direction and strong support to the incident, but not to spend too much time in the specific details of the operation.

32. Deputy Incident Commander

The Deputy Incident Commander on a major urban search should usually be a very experienced Search Manager who knows how to transform a broad action plan into a well-mobilized operation. During a typical wilderness SAR operation the search manager will perform many of the mission's planning and deployment duties, as well as a number of secondary functions. However during a large urban search operation he/she will probably perform only a single, but very important, role – ensuring that all of the mission's command and operations groups are functioning smoothly and in concert with each other. Each command and operations group, often dispersed in different locations, will usually be so completely absorbed in fulfilling their own specific functions they will not have time, or perhaps the skills, to monitor the entire operation.

This should be the primary role of the Deputy Incident Commander, to monitor, trouble-shoot and keep all of the ICS groups functioning smoothly and cohesively, as one efficient and productive search organization.

33. Agency Liaison

An urban search will always require very close liaison between a number of agencies. Obviously the SAR teams and the police will have to work very closely together but, during an urban search, the local municipality will also have an important role to play. The municipality has access to works yards, office equipment, highways crews, sign shops and a host of other resources that can be invaluable in expediting the setup of an efficient search operation. With the cooperation of the mayor, councilor or other highly placed municipal official these resources can quickly be deployed or brought to the command post. Other agency organizations, such as Victim Services, and state EMO officials are also likely to be involved, particularly the latter where significant funding authorizations may be required.

Typically all the agency members will meet at least once or twice a day to discuss the incident and plan for future actions – the Incident Action Plan. Wherever possible these meetings should be timed and located so that they will not interfere with the current execution of the search.

34. Family Liaison

During an urban SAR incident it is quite likely that one or several members of the immediate family, and their friends, will be present at the command post. These people should be treated with great care and sensitivity. The stress they will be undergoing is enormous and one should be ready to expect emotional outbursts, criticism and anger as well worry, fear and grief. To ease some of the family's suffering a specific individual, the Family Liaison Officer, should be assigned, full-time, to take care of their needs. Obviously this person should have great interpersonal skills, sensitivity and maturity. The Family Liaison Officer is often provided by the police's Victim Services agency, although many other social, religious and occasionally SAR groups do provide this service. In the past family members have complained that, during a protracted incident, they have had a number of individuals rotate through the Family Liaison role, breaking the much-needed bonding and emotional support to a single individual that they will require.

Family members will usually want to be located close to the Command Post, so that they can observe, and sometimes participate, in assisting with the search. A separate room, RV or tent should be set up close enough for them to observe the SAR response, but not so close that they will hear every comment, radio message or briefing to searchers, as this may cause them additional, unnecessary, stress.

It is usually a good idea to tactfully identify the family members, so that SAR personnel will be careful with their demeanor and conversation in the family's presence. A colored ribbon, nametag or other distinctive badge should be used to make sure that the family members are easily recognized.

Some family members may be content to stay in the background and just watch the incident but many will want to participate in some way. The family will usually be quite eager to provide much additional background information, including photographs, family history and a profile of the missing person. This is a positive reaction to the incident and should be encouraged. We have had mothers help out in the food truck, sons clear parking lots of snow, relatives drive people to assignments and, occasionally, with careful supervision, allowed physically active family

members to participate in moderate search assignments. These types of participation in the incident help to relieve some of the stresses on all parties and allow the family to understand and appreciate the difficulties and scope of the operation.

35. Communications Requirements

Communications requirements are usually considered to consist of primarily radio and telephone systems. However the physical layout of the command post, signage, nametags, ICS paperwork and the role of the media can all have a significant affect on the smooth transfer of information and the ultimate success of the mission.

35.1 Create a Communications Plan

A large urban search will almost certainly require the creation of a mission Communications Plan, and utilize a number of different radio frequencies for different functions within the operation. A typical communications plan might be as follows:

Field Team communications (North of Command Post):	Channel #1
Field Team communications (South of Command Post):	Channel #2
Command Team communications:	Channel #3
Transportation Group:	Channel #4
Support Group (Parking, Food Services, Security etc)	Channel #5

Note that on a very large search field team communications may be conducted across two radio channels and logged by two radio operators. Ensure that a number of base radios will be used during the search, to permit some redundancy should some of the units fail to operate.

35.2 Portable Radio Requirements

With a large number of simultaneous assignments underway the demand on portable radios will be very heavy. If 100 assignments have to be performed in one day, assuming that two assignments can be completed in a day, then approximately 50 portable radios will be required for the search teams alone – not including all of the command and logistic staff radios. The failure to have an adequate number of radios on hand can seriously hamper a large-scale search, both in the organization and search response to the incident.

35.3 Telephone Requirements

The role of telephones and particularly cellphones should be integrated into the communications plan. A number of phone lines should be dedicated to the following positions:

1. Command Post
2. ICS Staff
3. Field Team Communications
4. Public ‘Tip’ telephone lines.

35.4 Public ‘Tip’ Telephone Lines

On a major well-publicized urban search, particularly if an abduction is suspected, dozens, if not hundreds of telephone ‘tips’ will be received from the general public. Police have experienced rapid overloading of their single public ‘tip line’ during these instances, so a number of additional telephone ‘tip lines’ should be allocated by the police and then widely publicized. Close liaison between the police force and SAR teams is needed to ensure that any tips received that might be of value to the SAR planners are relayed quickly from the police to the planning team.

36. Determine Transportation Requirements

A designated Transportation Manager should be assigned to any major urban search. This person will be responsible for acquiring and managing the movement of all vehicles, including private cars, vans and busses involved in the search. A separate transportation status map may also be prepared, to simplify keeping track of the location of vehicles. During the smaller initial search response a small number of private vehicles and one common radio channel may be adequate. These vehicles may be used for both road searching and for transportation. On a larger search the transportation manager should be allocated a designated radio channel to monitor the movement of the transportation group's drivers. The transportation manager has a difficult job, he/she has to be aware of the current goals and activities of the search manager, while ensuring that no transportation bottlenecks occur in the deployment and return of search teams. The Transportation Manager should also stay in close contact with the Briefing Officers, who have the role of briefing the field search teams prior to their deployment on search assignments.

36.1 Determine Vehicle Requirements

As the search expands to involve hundreds of searchers it will be necessary to have a more organized transportation plan than just the use of private vehicles. A small fleet of vans or busses will be required to transport the searchers to and from their assignments. Three or four twelve-seater vans may be sufficient for searches involving up to say, 100 hundred searchers. For larger incidents, involving hundreds of searchers, a bus company will probably have to be requested, to provide an adequate number of transportation vehicles and drivers. Utilizing a local bus company for transportation has the advantages of bringing professional, radio-equipped drivers with good local knowledge to the incident. The private vehicles can then be retained for some transportation, vehicle patrols and detailed road searching.

36.2 Bicycles

Bicycles make excellent search vehicles in the urban environment and can search in areas inaccessible to most motorized vehicles. They can also cover much longer distances than searchers on foot. Local roads, lanes, trails and rights-of-way can often be quickly searched by bicycles and so should be included as an efficient search resource in the transportation plan.

36.3 Horses

In rural areas and in the urban/rural interface horses may be put to good use as search 'vehicles', especially in areas with extensive parkland, farms, fields and meadows. The high stance of the rider and relatively slow speed make for particularly effective visual searching.

36.4 All Terrain Vehicles

All terrain vehicles, like bicycles and horse, have some utility in the urban and urban/rural interface searching, although there are often restrictions on their use in urban areas. ATV's can also be very useful for moving equipment and supplies around a command post or campsite.

37. Registration Process

The registration process is one of the first steps incoming volunteers will experience when they arrive to assist with the search. If it functions smoothly it will create the impression of an orderly and well-managed SAR operation. If it is not setup properly and causes significant confusion and delays then it is likely that many complaints and criticisms of the incident's management will follow. Unless corrected quickly these complaints are likely to spread to other aspects of the search organization.

37.1 Registration Setup

The following simple registration process that has proven quite successful over the years: A folding table, with perhaps 5 check-in clipboards and a box of nametags, is placed near or adjacent to the command post. Each clipboard is clearly labeled for each specific SAR team coming to assist the mission. As more public volunteers join the incident more tables are set up - each table and clipboards clearly labelled for 'public registration'. At least one person should be assigned to each registration table, to assist the public and answer general questions. To speed up the registration process the public volunteers, not the registration personnel, should fill in the check-in forms and nametags themselves. Plan to have approximately one registration table, 5 clipboards and at least one registration person, for every 100 searchers.

37.2 Registration Identification

The registration information usually recorded includes: name, home address, phone number, date of birth, organization and, perhaps, drivers license number. The date of birth and driver's license fields make it easier for the police to cross-check for criminal records of the people assisting with the search. Incident briefing whiteboards should be placed near the registration area, so that the searchers may read information regarding the incident while they are waiting to check-in.

37.3 Skill Identification

A useful tip for identifying searcher skills is to tie a short length of colored flagging tape to each person as they register. One color is used for SAR/Agency searchers, another for the general public, another for searchers with local knowledge of the area, another for searchers with vehicles and so on. This can be very convenient later on when the Briefing Officers begin to assemble teams of searchers, based on their skills, from the hundreds available, for field assignments.

37.4 Software Registration System

If the registration data is to be entered into computer software then a dedicated team of software registration personnel will be required. Manually entering data into software is a relatively slow process and most peoples keyboard speed is fairly slow, so plan to allocate one software registration person for each 50 to 100 searchers. The software registration personnel take each completed paper check-in form from Registration, each form typically listing 20 or so registered searchers, and then manually enter this data into the software. By designating a separate software registration team we ensure that the public volunteers are not delayed beyond their initial, paper form self-registration process.

38. Public Assembly/General Briefing Area

Once the public volunteers have completed the registration process they should be directed to the nearby General Briefing Area to be given an overview briefing and, subsequently, their assignment briefing. It is important to ensure that the public assembly/briefing area be located preferably adjacent to, and certainly no further than, say 50 to 100m. from the planning and the registration areas. If these distances become too far then personnel, both searchers and command staff, can quickly become separated and 'lost' for some time in the crowds of people. This can cause the whole registration-briefing-deployment process to unravel and the organized deployment of search teams start to collapse.

39. Briefings

The incident's briefings generally occurs at three levels: general overviews of the incident, media briefings and specific assignment briefings.

39.1 General Overview Briefings:

During a small to moderate-size search the general overview briefings may only occur once, at the beginning of the operational period. During a large-scale incident, where searchers are arriving over an extended period of time, a number of overview briefings may have to be conducted at regular intervals throughout the day. An important aspect of these overview briefings, and all planning activities, should be to maintain a continual transfer of information and flow of activity throughout the incident. Briefings, as a rule, should be scheduled and located to keep the incident moving forward and should not, unless absolutely necessary, be allowed to stop all mission activities.

Agency personnel, such as the police, may want to provide some or all of these overview briefings. These briefings, especially if the media are present, can be a useful means of transmitting incident information to a larger audience, including the general public.

39.2 Media Briefings

The media should be considered a valuable asset during an urban search. They have the infrastructure to rapidly disseminate a description of the missing person and can, by placing the incident before the general public, permit thousands of people to be on the lookout for this person. As the search expands it is likely that, through the media, hundreds of members of the general public will volunteer to assist with the search. Given the fact that most persons found in the urban environment are found by members of the general public, then the usefulness of ongoing media support cannot be overestimated. Police data indicates that 58% of the time the subject is found by the general public, 28% of the time by the police and only 6.5% of the time by the search teams. This underlies the great importance of quickly and regularly getting information out to the media.

The media will most probably record much of the incident as it progresses, including the general overview briefings. However dedicated media briefings, prepared by the Incident Commander or Public Relations Officer, should also be given. Briefings given by these 'people of authority' carry a lot of weight with the general public and can be of great assistance to the search. The media are generally tied to very tight timelines and will want to have their briefings at least one hour before the noon, 6pm and 10pm news broadcasts. Wherever possible try to meet these scheduling requirements, but do not hinder the continued execution of the search to do so.

39.3 Assignment Briefings

During a moderate to large scale search of, say, more than 50 up to hundreds of searchers, the planning chief will probably not have time to brief each search team on their assignment. He/she will need a number of Briefing Officers to perform this task. For up to 100 or so searchers, two or three Briefing Officers may be adequate. During an incident in which, say 1,000 searchers turn up within a few hours, then perhaps 10 Briefing Officers will be required. The assignment briefing process is generally as follows:

1. The Planning Officer prepares a set of assignments forms, usually before the start of the operational period. During a large urban search there may be 50 to 100+ assignments within one operational period!
2. At the start of the operational period the Planning Officer gives a Briefing Officer an overview of an assignment, along with the necessary maps, number of searchers required, special instructions etc.

3. The Briefing Officer takes the assignment to the General Briefing Area and collects the required number of searchers, from the crowd, with the necessary combination of skill sets. The color-coding skills flagging tape on each searcher will help with the selection of the appropriate balance of SAR/Agency and public searchers for the assignment.
4. This group of searchers are then taken to the Assignment Briefing Area
5. The Briefing Officer then writes the names, cellphone numbers and radio call-signs of the team on the assignment form.
6. The search team is then briefed on the details of their assignment, including communications, transportation requirements, safety concerns, etc.
7. Once the search team has been observed to have been deployed to their assignment the Briefing Officer then returns a copy of the completed assignment form back to the planning area.

Note: This is a critical step. During a large search it is quite possible for prepared assignments to ‘disappear’ because the allocated search team has not been monitored through to the point of actual deployment to the field. The Briefing Officer is responsible for ensuring that the assignment forms brought back to the planning status area are indeed active and that the search team has actually been sent to the transportation area and deployed.

8. The Status Officer confirms that all of the necessary information (names, call-signs etc) has been recorded on the assignment form and then posts the now active assignment form onto the Mission Status wall. If computer software is being used this information should be transferred to the computer prior to posting the active assignment on the Mission Status wall.
9. The Briefing Officer now requests a new assignment and Steps 2 through 8 are repeated for the new assignment.

The general goal is to assign, brief and mobilize a very large numbers of searchers as quickly as possible. By using multiple Briefing Officers this process may proceed fairly rapidly. We have managed to mobilize approximately 1000 searchers and 100 assignments in approximately 2 to 3 hours using this technique.

This assignment technique has a number of advantages:

- i. It frees the Planning Officer to concentrate solely on the process of creating and disseminating a large number of assignments.
- ii. It ensures that specific individuals – the Briefing Officers – handle the whole process of allocating search team members, briefing them on their assignment and then confirming that they have been deployed to the search.
- iii. The Status Officer verifies that the assignment data is complete before the information is loaded into software and the active assignment posted on the Mission Status wall.
- iv. Utilizing multiple Briefing Officers ensures that delays in the allocation and processing of assignments to searchers are kept to a minimum.

40. Documenting Clues

Recording and keeping track of potential clues during an urban search can be a difficult undertaking, particularly when a large number of clues have been gathered over a number of days. It is easy to lose track of these clues as people rotate through various roles and information is recorded in different places. At the conclusion of the incident, particularly if it has been unsuccessful in finding the subject, the police may ask for the details of all these clues, so that they may continue with their investigations. It is therefore important that a consistent and organized approach be used to document the details and location of all clues. Recording and documenting these clues can be a real problem in an urban environment where the sheer number of clues may become overwhelming. An orderly system of identifying, eliminating and seizing clues should therefore be set up early in the planning process.

40.1 Information Clues

To ensure that no potential clues are 'lost' during a search a specific Clue Information Folder should be created. All clue information from all sources, including the radio and telephone logs and assignment debrief forms, should be copied into this folder. This ensures that all clue information, even during a multi-day operation, will be kept, copied and reside in a single, clearly identified, location. The radio and telephone logs should also clearly highlight each recorded clue, so that they may be easily located when browsing these extensive communication records.

40.2 Physical Clues

During a large urban search it is quite likely that a large number of physical 'clues' will be identified. In practice the vast majority of these 'clues' will turn out to be no more than items collected, i.e. will have no direct link to the missing person incident. It is easy for the search to become sidetracked, chasing down 'clues' that eventually turn out to be unrelated to the incident, so the Search Manager should ensure that the search continues to maintain its momentum, while a small group check out the relevance of each 'clue'.

We have found that, on a large search, the natural tendency to send the police out to investigate every physical 'clue', unless it is clearly of potential significance, is usually time-wasting and unproductive. Once dozens of these 'clues' have been identified the process becomes unworkable. We have found that supplying each deployed search team with a permanent marker and a quantity of large ziplock bags to be a much more efficient technique. Ensure that sufficient permanent markers and a large number (hundreds) of 'clue bags' are available. The team radio's in when and where they have found a clue, and then, on instruction from base, place the clue in the clue (ziplock) bag. The clue bag is then clearly labeled with location where the clue was found, along with the current date/time, name of person locating and seizing it and the team's call sign. These clue bags are then returned for examination to a designated location in the command post, preferably beside the debrief area, when the search team completes their assignment.

41. De-briefing Incoming Volunteers

During a large search operation, involving hundreds of searchers, a specific Debriefing Team should be created. This team will receive all the incoming search teams, accept any physical clues returned and then debrief the team on the particulars of their completed assignment. Having a separate debriefing team allow the Planning Officer, Briefing Officers and Status Officer to remain focused on creating and implementing new search assignments. Of particular interest to the debriefing team are any gaps in search area coverage, newly-identified 'likely

areas' for search assignments and any physical or information clues. Once these search areas have been clearly identified this information is then passed on to the Planning Officer, who will create new assignments based on the debriefing information. Copies of the clue information will be placed in the Clue Information Folder and the physical clues retained for police examination.

42. Check-out of Searchers

Once the searchers have completed all of their assignments and have been debriefed, they may be released from the search. This requires checking-out each searcher in the Registration area. When primarily SAR volunteers are involved in the incident they will usually be familiar with, and follow, the check-out process. Public volunteers are unlikely to recognize or follow a checkout procedure, unless it is very obvious. It may help to place signs and strategically locate personnel near the command post exits to advise these public volunteers to check out before leaving. Even with these precautions it is quite likely that many public searchers will leave without checking out. This is not as major a concern as in the wilderness SAR environment as most people will make it safely home. Nevertheless there is a risk that someone may have become lost or injured during the search and will remain unaccounted for. The assignment debrief forms should therefore be used as the primary means of ensuring that every member of every search team has safely returned from their assignment, even if they later fail to check-out later.

Large numbers of public volunteers checking-out around the same time can create almost as much of a logistic backlog as when these searchers check-in. There is a natural tendency for the registration volunteers who have managed the check-in process earlier in the day to leave, or assume other duties, as the demand for check-in's diminishes. Care should be taken to identify and retain these people throughout the day so they remain available to manage the evening's check-out process.

Hundreds of almost simultaneous check-outs can place a huge load on the software registration system. Be sure to have the full complement of the software registration personnel available for managing the evening's software check-out. This check-out process will typically be considerably faster than the morning's check-in, as all of the data will already be in the computer system. However people will not tolerate extended delays when they plan to leave the search base for home, so, to expedite the check-out process, plan to have sufficient computers and personnel available to allocate one software registration person to check-out every 50 to 100 searchers.

43. Demobilization

Demobilization of the incident can start as soon as the incident is declared closed or suspended and most of the searchers have returned to base from their field search assignments. Those searchers that have to drive a considerable distance to their homes may be released earlier, or given accommodation nearby, so that they do not have to drive a long way home while still tired. This should not be considered a luxury but rather an important safety requirement. Various command post facilities, such as briefing tents, kitchens, equipment caches etc may be put away first, followed by the clean-up of the briefing and debriefing areas and later the planning area. Usually the base radio system is the last facility to be shut down and after this, most of the command staff will still carry portable radios for any last-minute communications. During the demobilization process a list should be kept of any outstanding items to be completed, or equipment returned, at a later date.

44. Post Mission Review

After an extended urban search, especially one involving large numbers of searchers, a post mission review should usually be conducted. This review can be a valuable learning tool and should usually be scheduled to occur within 2 to 3 weeks of the close of the incident. All of the major organizations involved in the incident should be invited to attend the meeting and a careful record kept of the lessons learned during the incident. Even if the mission failed to find the subject there are usually many valuable lessons to be learned and improvements in response to be gained, from this detailed mission review. The minutes of the review, the documentation of the successful procedures and, particularly, the recommendations for improvement, should all be clearly laid out in the distributed review document.

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