Illinois Search and Rescue Council
SEARCH AREA ESTABLISHMENT FORM

DATE PREPARED:	TIME PREPARED:
PREPARED BY:	INCIDENT #:

_____ **PLOT IMPORTANT POINTS ON TOPO MAP**

Using either SARTopo or a USGS 1:24,000 scale topographical map of the immediate area(s) around the IPP, mark the following applicable items:

PLS , LKP, or IPP ***(Indicate which on map)***

Clue (*Indicate number and location in GPS/ UTM*)

Command Post

Staging Area

Helicopter Landing Zone

_____ **DETERMINE & PLOT THEORETICAL SEARCH AREA**

Formula ***: Theoretical Search Area Radius = (subject speed) x (time elapsed since last seen)***

If time makes this impractical (>4 hours), this step may be omitted.

Child 3-4 Years	2.0 MPH	Child 11-12 years	3.0 MPH
Child 5-6 Years	2.4 MPH	Hiker No Pack	2.0-2.5 MPH
Child 7-8 Years	2.7 MPH	Hiker w/Pack	1.5-2.0 MPH
Child 9-10 Years	2.9 MPH	Hiker Uphill	1 HR/1000FT Mountain

_____ MPH x _____ HOURS = _____ THEORETICAL SEARCH AREA RADIUS

PLOT the Theoretical Search Area on the topo map as a **Dashed Blue** Circle out to the proper radius (to scale) from the IPP.

_____ **DETERMINE AND PLOT 25%, 50% & 75% PROBABILITY DISTANCES**

List all applicable subject profiles: _____

List primary profile being initially used: _____

25% Primary profile _____ 50% Primary Profile _____ 75% Primary Profile _____

PLOT these three distances on the topo map as circles out to the proper radius (to scale) from the IPP. The 25% circle should solid **black** 50% circle should be **dashed green** and the 75% circle should be **solid green**

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_____ **IDENTIFY THE INITIAL SEARCH AREA BOUNDARY**

Once all circles have been drawn, examine physical features and determine the initial search area using the probability information as a reference. The size of the initial search area MUST be large enough to contain the 50% search probability zone (as indicated on the map) and should include as much of the 75% area as possible. However, serious consideration should be given to major physical boundaries past which the subject would not reasonably be able to cross (these may be natural or man-made). When these boundaries are believed to exist, areas may be disqualified provided the reasoning and justification is thoroughly documented.

NOTE: Remember that once established, the entire initial search area must be searched in some way (unless later discounted through new evidence) before the search may be suspended.

PLOT the initial search area boundary on the map using a Solid Red Line. Once this is accomplished, the theoretical, 25%, 50% and 75% circles may be erased to "clean up" the map.

_____ **SEGMENT THE MAP INTO SEARCHABLE SEGMENTS**

Designate individual search segments for assignment to area search resources. Ideally, least 3 sides of the segment should consist of natural or artificial features, especially if SARTopo is not being used::

Artificial features (roads, paths, RR tracks, power lines) Natural features (streams, cliffs, ravine bottoms, tree lines)

Improvised features (Compass lines, flag lines) **only as a last resort** Note Improvised feature boundaries with tick marks to differentiate

Searchable segments should be small enough to be searched by a land SAR resource (ground search) crew, K9 search crew, mounted search crew, etc.) in about 4 hours' time.

A good rule of thumb is:

No more than 14-16 acres daytime, depending on terrain and vegetation.
No more than 7-10 acres nighttime, depending on terrain and vegetation.

Searchable Segments – **Solid Black Lines with numeric designators**

ONCE MAP IS COMPLETED, GO ON TO SCENARIO DEVELOPMENT/CONSENSUS PROCESS