Instructions for using the POD calculator for SAR debriefing

This is a graphical calculator for computing coverage and POD from known quantities using only a straight edge and pencil.

Information required:

- Effective sweep width for desired object
  OR
  measured average range of detection and object visibility class (low, average, high).
- Total track length of one team member (obtained via GPS track in segment searched)
- Number of searchers on team
- Area searched

You can use the calculator to determine the POD the team acheived.

If you do not know the effective sweep width W, the team must have measured their range of detection R_d and you must estimate the visibility of the object they used to determine it:

- Low visibility: an object that blends in with surroundings, i.e. same color or camoflaged.
- High visibility: an object that stands out well against its surroundings, e.g. white or orange against a forest background.
- Average: If you cannot classify the object as high or low-visibility.

  Mark a point on the R_d scale at the measured range of detection.

  With a straight edge, draw a line from your R_d point through the tick for the visibility and extend it to the Sweep Width scale. Mark a point where your line crosses the Sweep Width scale. This is the approximate effective sweep width.

If you have the effective sweep width from a table, you can simply mark your effective sweep width directly on the Sweep Width scale.

To use the calculator to compute the POD from what the team did:

1. From your mark on the Sweep Width scale, draw a straight line through the measured track length on the “Track Length” scale and mark the point where this line crosses A.
2. From your mark on the A line, draw a straight line through the number of searchers on the team on the “N” scale and mark the point where this line crosses B.
3. From your point on line B, draw a straight line through the area searched on the “Area” scale. Read the team's POD where this line crosses the POD scale.

Note that if the team did not search their entire segment, use the area of the portion actually searched to determine POD, and subdivide the segment into searched and unsearched portions for the purposes of OPOS calculation.