

# MPPs of one LOP and one EP

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In the figures below the LOP is the red line, the EP is located at the star, and the MPP is at the cross. Distances are all in the same arbitrary units, the area covers 200x200 of these units. The 1D standard deviation (SD) of the LOP is 4 units in all figures. And the EP has considerable larger SDs, either 40 or 120 units, with the ellipse axes running north-south and east-west. The figures are independent of the tract to the EP. But the interpretation of the asymmetric EP distribution does depend on it. For example, an EW track would mean that the axes of the EP ellipse are aligned parallel and across track.

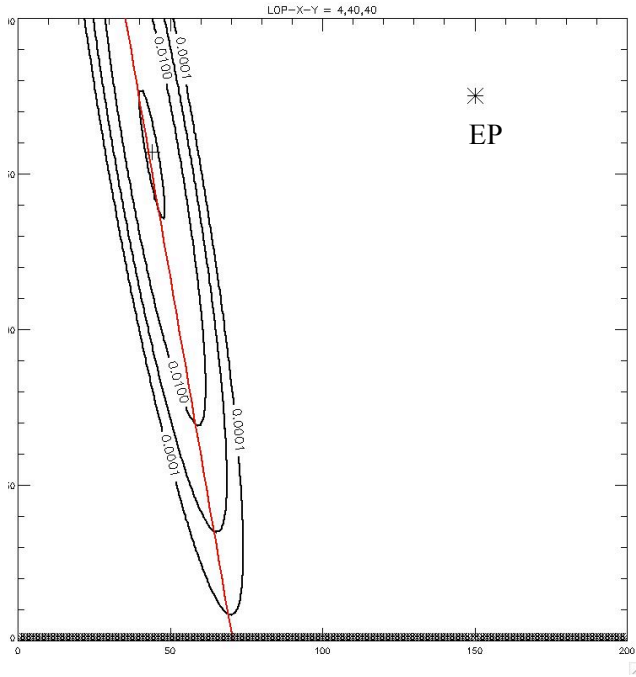


FIG. 1 Here the EP distribution has circular symmetry with SD of 40. The MPP is on the perpendicular from the EP, and pulled slightly off the LOP, toward the EP.

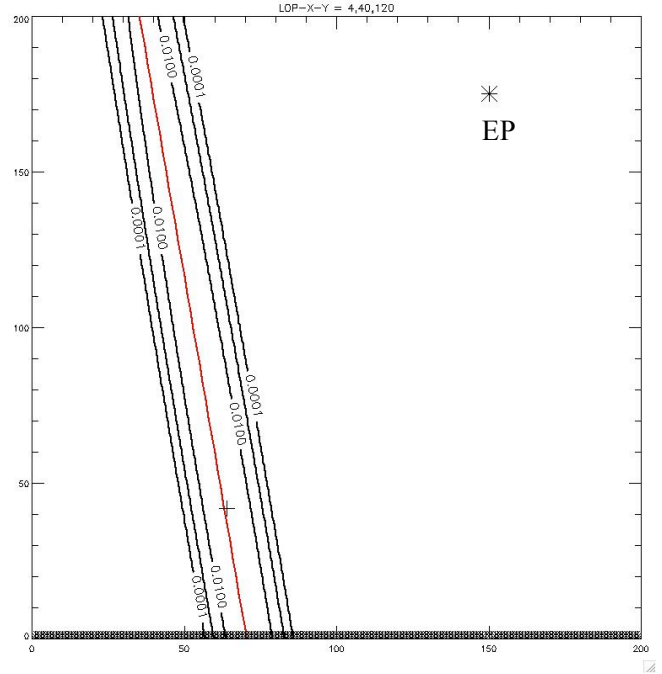


FIG. 2. The EP distribution is asymmetric with a NS SD of 120 and an EW SD of 40. The strong influence of the EW SD drags the MPP toward the EP, but way south along the LOP.

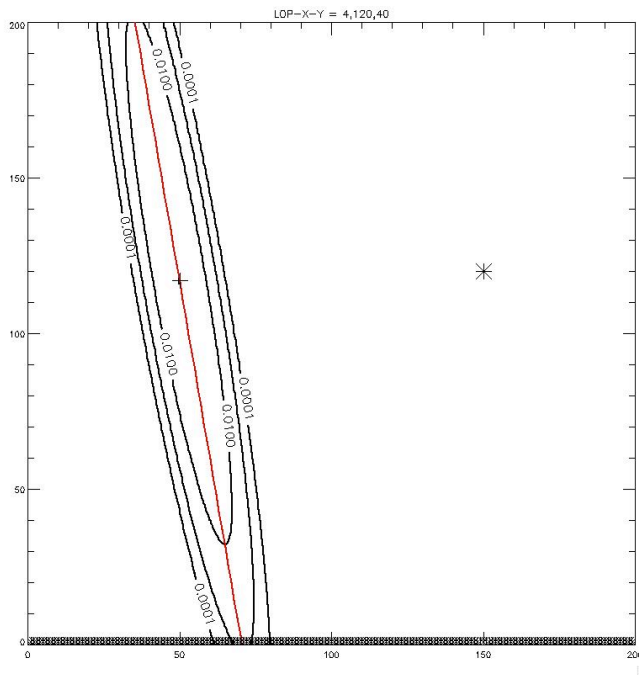


FIG. 3. Here the two EP distributions are reversed, with the NS of 40, and the EW of 120. Now the sharper NS SD draws the MPP only slightly north of the perpendicular spot of Figure 1.