

ERTH 465
Inclass Exercise 3: Streamline Curvature
Due Tuesday 17 September

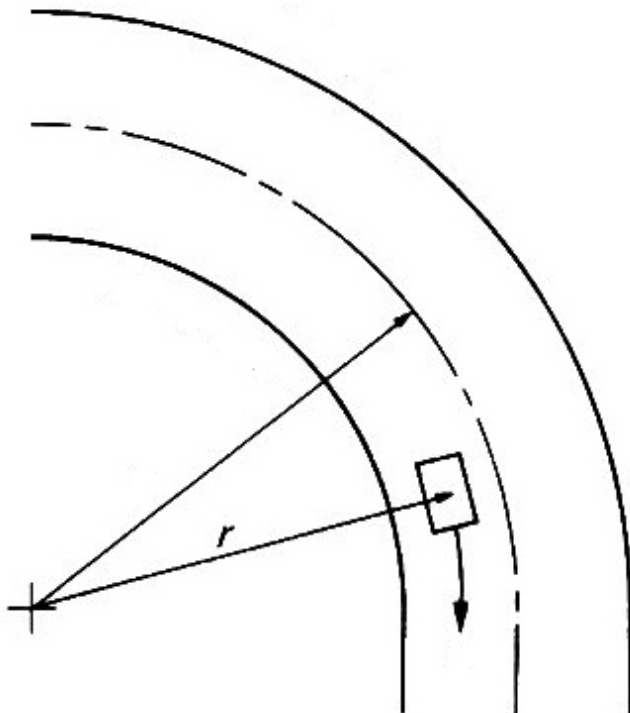
Please answer on back or on separate sheets, in complete sentences where appropriate.

You are provided with a 500 mb chart on which various locations, A, B, C, D, and E are shown.

Recall that the formula for streamline curvature is

$$k = \frac{1}{r}$$

where r = local radius of curvature for that given streamline, as discussed in class. The dimension for k and r is distance.



1. Draw short (100 km or so) streamline segments at each of the locations.
2. For which of the locations indicated would the absolute value of the curvature be the greatest and why?
3. For which of the locations indicated would the absolute value of the curvature be the least and why?
4. For which of the locations shown would the sign of the curvature be negative and why?
5. For which of the locations A, B, or C would the cyclonic curvature be the least and why?

