HORIZONTAL ACCURACY

Horizontal map accuracy is defined as the root mean square (rms) error (see Appendix A, Section A1) in terms of the project's planimetric survey coordinates (X,Y) for checked points as determined at full (ground) scale of the map. The rms error is the cumulative result of all errors including those introduced by the processes of ground control surveys, map compilation and final extraction of ground dimensions from the map. The limiting rrms errors established by this standard are the maximum permissible rms errors for 90% of the check points on a map. These limiting rms errors for various classes of maps are tabulated in Tables 1 and 2 along with the map scales typically associated with the limiting errors. These limits of accuracy apply to tests made on well-defined points only (see Appendix A, Section A2).

VERTICAL ACCURACY

Vertical map accuracy is defined as the rms error in elevation in terms of the project's elevation datum for well-defined points only. For Class 1 maps the limiting rms error in elevation is set by the standard at one-third the indicated contour interval for well-defined points only. Spot heights shall be shown on the map within a limited rms error of one-sixth of the contour interval. The limiting rms error in elevation for spot height data not associated with contours can be determined by consulting Tables 1 and 2. Tables 1 and 2 can also be used as a reporting standard for determining appropriate map scales for various spot height data.