



SUPPLEMENTAL TECHNICAL INSTRUCTIONS	Supplement Number	Date Issued
	95-1	1/27/95

National Mapping Division

SUBJECT

Accuracy labeling of USGS Quadrangle Maps.

BACKGROUND

This STI replaces STI 93-3-C, issued April 13, 1993.

Supplemental Technical Instructions (STI) 93-3-C was written in anticipation of the adoption of a draft National Cartographic Standards for Spatial Accuracy (NCSSA) which was intended to replace the present National Map Accuracy Standard. STI 93-3-C gave instructions for accuracy labeling based on the proposed standard including the use of accuracy classes.

As a result of a public review through the Federal Geographic Data Committee, the NCSSA has been substantially rewritten. The new draft standard, now called "National Spatial Data Accuracy Standard" (NSDAS) is undergoing another period of public review and comments.

The instructions in STI 93-3-C are not consistent with the NSDAS. Therefore, until such time as a new national standard for spatial accuracy is approved, the National Mapping Division will revert to accuracy labeling practices consistent with the National Map Accuracy Standards (NMAS) of 1947. The attached NMAS standard is for reference.

INSTRUCTIONS

Apply the following label to those maps that meet both the horizontal and vertical accuracy standards as defined by NMAS:

"THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS"

Do not add an accuracy note if the map does not meet both the horizontal and vertical standards as defined by the NMAS. Follow the instructions as outlined in STI 85-1-G issued June 6, 1985.

APPLIES TO

All National Mapping Division standard series maps at scales 1:250,000 and larger.

ISSUED TO

EDC, MAC, MCMC, RMMC, and WMC.

APPROVED BY

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cc: NMD ADC/CR ADC/IS ADC/PB&A ADC/RES MPO Standards POC/OPR's Canada (2)
Mexico (2) Census NIMA FS (2) TVA PO (2) PTS (2) PPA POP

United States National Map Accuracy Standards

With a view to the utmost economy and expedition in producing maps which fulfill not only the broad needs for standards or principal maps, but also the reasonable particular needs of individual agencies, standards of accuracy for published maps are defined as following:

1. Horizontal accuracy. For maps on published scales larger than 1:20,000, not more than 10 percent of the points tested shall be in error by more than 1/30 inch, measured on the publication scale; for maps on publication scales of 1:20,000 or smaller, 1/50 inch. These limits of accuracy shall apply in all cases to positions of well-defined points only. Well-defined points are those that are easily visible or recoverable on the ground, such as the following: Monuments or markers, such as a bench mark, property boundary monuments; intersections of roads, railroads, etc.; corners of large buildings or structures (or center points of small buildings); etc. In general what is well defined will also be determined by what is plottable on the scale of the map within 1/100 inch. Thus while the intersection of two road or property lines meeting at right angles would come within a sensible interpretation, identification of the intersection of such lines meeting at an acute angle would obviously not be practicable within 1/100 inch. Similarly, features not identifiable upon the ground within close limits are not to be considered as test points within the limits quoted, even though their positions may be scaled closely upon the map. In this class would come timber lines, soil boundaries, etc.
2. Vertical accuracy, as applied to contour maps on all publication scales, shall be such that not more than 10 percent of the elevations tested shall be in error more than one-half the contour interval. In checking elevations taken from the map, the apparent vertical error may be decreased by assuming a horizontal displacement within the permissible horizontal error for a map of that scale.
3. The accuracy of any map may be tested by comparing the positions of points whose locations or elevations are shown upon it with corresponding positions as determined by surveys of a higher accuracy. Tests shall be made by the producing agency, which shall also determine which of its maps are to be tested, and the extent of such testing.
4. Published maps meeting these accuracy requirements shall note this fact on their legends, as follows: "This map complies with National Map Accuracy Standards."
5. Published maps whose errors exceed those aforesaid shall omit from their legends all mention of standard accuracy.
6. When a published map is a considerable enlargement of a map drawing (manuscript) or of a published map, that fact shall be stated in the legend. For example, "This map is an enlargement of a 1:20,000- scale map drawing," or "This map is an enlargement of a 1:24,000- scale published map."

7. To facilitate ready interchange and use of basic information for map construction among all Federal mapmaking agencies, manuscript maps and published maps, wherever economically feasible and consistent with the uses to which the map is to be put, shall conform to latitude and longitude boundaries, being 15 minutes of latitude and longitude, or 7.5 minute, or 3-3/4 minute in size.

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U. S. BUREAU OF THE BUDGET