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Manual
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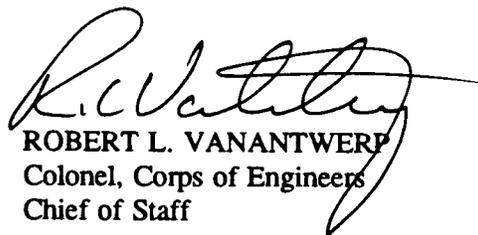
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Engineering and Design
TOPOGRAPHIC SURVEYING

- 1. Purpose.** This manual establishes procedural guidance, specifications, and quality control criteria for performing field topographic surveying in support of planning, engineering and design, construction, and environmental restoration activities.
- 2. Applicability.** This manual applies to all HQUSACE elements, major subordinate commands, and districts which perform, contract, or monitor topographic surveys in support of civil works and military construction activities. It is also applicable to surveys performed or procured by local interest groups under various cooperative or cost-sharing agreements.
- 3. Discussion.** Topographic surveying is performed to determine the planimetric location and topographic relief of features in three dimensions. Topographic surveys are performed for detailed large-scale site plan drawings or maps at scales equal to or larger than 1 inch = 100 feet (1:1,200). Intermediate and small-scale maps are usually constructed by aerial photogrammetry or satellite remote sensing methods. This manual covers field survey techniques used in performing topographic surveys with modern electronic total stations and electronic data collectors. It includes procedures for transferring field data to computer-aided drafting and design (CADD) systems or geographic information systems (GIS) for use in planning, engineering, and construction.

FOR THE COMMANDER:

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Colonel, Corps of Engineers
Chief of Staff