Assessing the Accuracy of GIS Information Created from Remotely Sensed Data: Principles and Practices

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INTRODUCTORY WORKSHOP

This course focuses on the principles, techniques, and practical aspects of assessing the accuracy of GIS information derived from remotely sensed data and is based on the new 2nd edition of the book written by the instructors. Participants will receive instruction in how to design accuracy assessment procedures, allocate accuracy assessment samples, collect both field and photo reference data, and analyze accuracy assessment results. Examples of accuracy assessment case studies based on actual project data will be presented and discussed. Each participant in this course will come away with a solid understanding of accuracy assessment procedures for spatial data, and the knowledge to properly interpret the results of such procedures. In order to maximize the benefits of completing this course, participants should have previous experience with GIS and remotely sensed data. In addition, a good understanding of statistical principles is also strongly suggested.

I. Introduction
II. A Historical Review
III. Positional Accuracy
      A. Standards
      B. Design of the Assessment
      C. How Analyzed
IV. Thematic Accuracy
      A. Non-site Specific Assessments
      B. Site Specific Assessments
          1. The Error Matrix
V. Sample Design Considerations
      A. Classification Scheme
      B. Sample Unit
      C. Sample Size
      D. Sampling Scheme
VI. Reference Data Collection
VII. Basic Analysis Techniques
      A. Kappa
      B. Margfit
VIII. Analysis of Differences in the Error Matrix
IX. Fuzzy Accuracy Assessment
X. Case Study
XI. Conclusions