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RECREATION GPS AS A LOW-COST ALTERNATIVE FOR INTRODUCTORY COURSES IN NATURAL RESOURCES

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The Global Positioning System (GPS) has proven reliable for collecting spatial data for integration into a computer-based Geographic Information System (GIS). However, high cost often prohibits the purchase of individual GPS units for each student in a class. Recent advances in technology coupled with decreasing prices have made recreational GPS a low-cost alternative for introductory courses in Natural Resource Management. These units utilize 12-channel receivers, range in price from $115 to $500, and exhibit a point-location accuracy within 14 meters 95% of the time (6.2m - 66% of the time). Although recreational units lack the capacity for differential correction through postprocessing, the addition of real-time differential correction can improve accuracy to less than 9 meters 95% of the time in areas where free differential correction signals are obtainable (4.2m - 66% of the time). Several free computer programs are available for retrieving data from a recreational GPS directly into a GIS. Still others exist as stand-alone software that allows image registration for GPS data overlay. Thus, it is now feasible for students to purchase their own GPS unit for use in introductory classes, in advanced courses, in their research, or in any endeavor requiring spatial data collection for computer-based mapping.