

## **NACIS Annual Meeting 2000**

### **A Three Dimensional GIS Model for a Forest**

#### **Preserve in the Hudson Highlands**



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The Black Rock Forest, a nonprofit forest preserve located in the Hudson Highlands of New York (an hour-and-a-half north of New York City), recently flew high resolution, full color aerial photography of its 1530 hectare expanse. Much of this area consists of fairly rough terrain on eroded metamorphics. A DEM computed from the triangulated aerial photography was used to create a three dimensional GIS model of the forest preserve. Various GIS layers (hypsometric tints, hydrography, and the full color aerial photography) were draped over the three dimensional model to create very effective visualizations of the forest topography and vegetation. Applications of the three dimensional model include visitor education in the Forest's new Nature Center and research projects focused on watershed analysis and biohabitats.