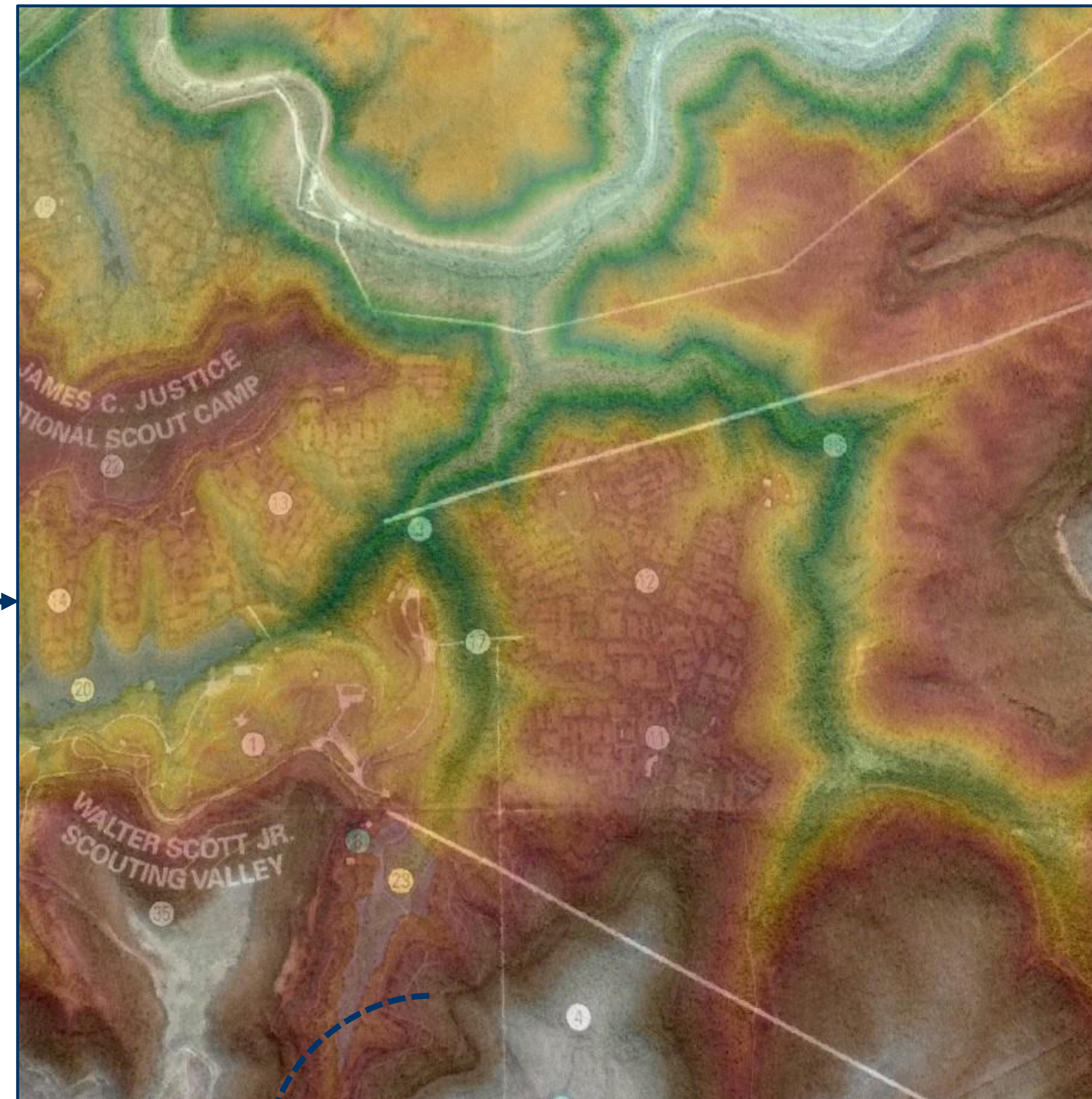
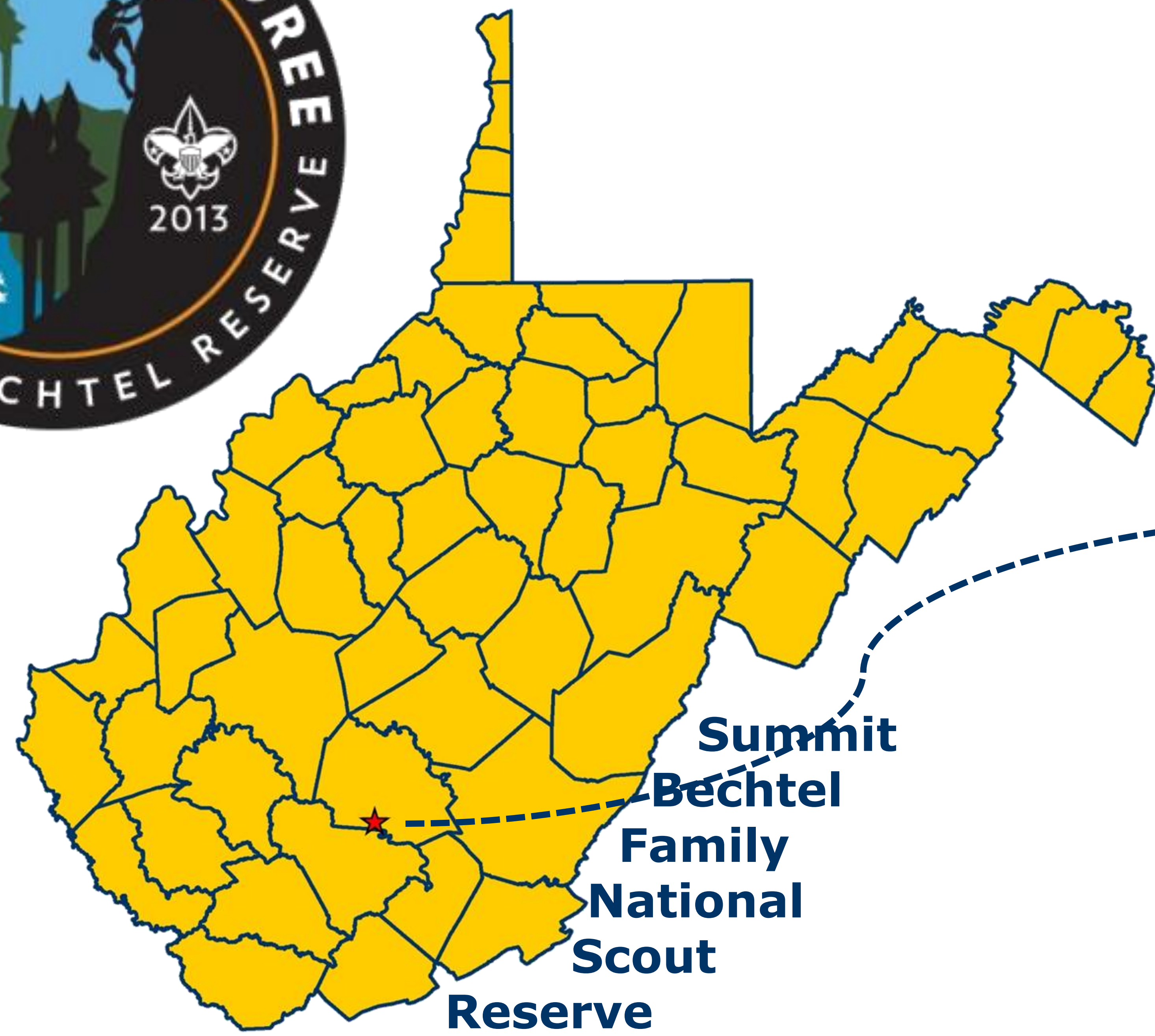


THE BIG ZIP

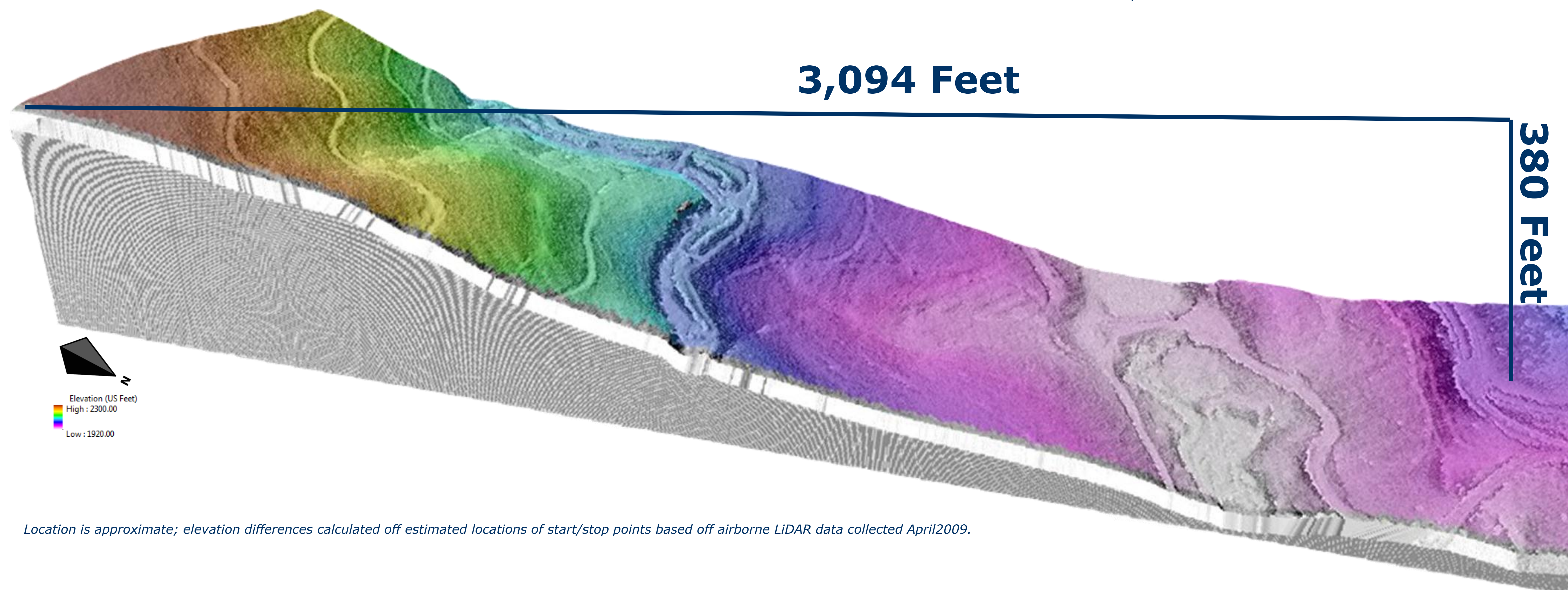


SCIENCE BEHIND THE SPORT:

Remote Sensing

In order to accurately map the earth's surface, West Virginia University produces in-house highly accurate and detailed digital elevation models (DEMs) by collecting LiDAR (Light Detection and Ranging) data. These data are similar to RADAR but use up to 100,000 pulses of concentrated energy (in form of near infrared (invisible) light (1064nm) emitted from an aircraft. By operating a system that is capable of multiple returns, WVU collects important information for natural resource professionals, including penetrating the vegetation to produce landform maps.

LOCATION OF BIG ZIP



Location is approximate; elevation differences calculated off estimated locations of start/stop points based off airborne LiDAR data collected April 2009.



Formed in the 1990s, the Natural Resource Analysis Center is a multi-disciplinary research and teaching facility in the Davis College of Agriculture, Natural Resources and Design at West Virginia University. Geographic Information Systems (GIS) and Remote Sensing (LiDAR) have been integral parts of the research and teaching programs of the Davis College for many years. The activities at the Center have been designed to complement work within the College, and include environmental planning, environmental and natural resource economics, recreation, wildlife management, forest ecology, and land and water reclamation.