# Highs and Lows - GIS Apps



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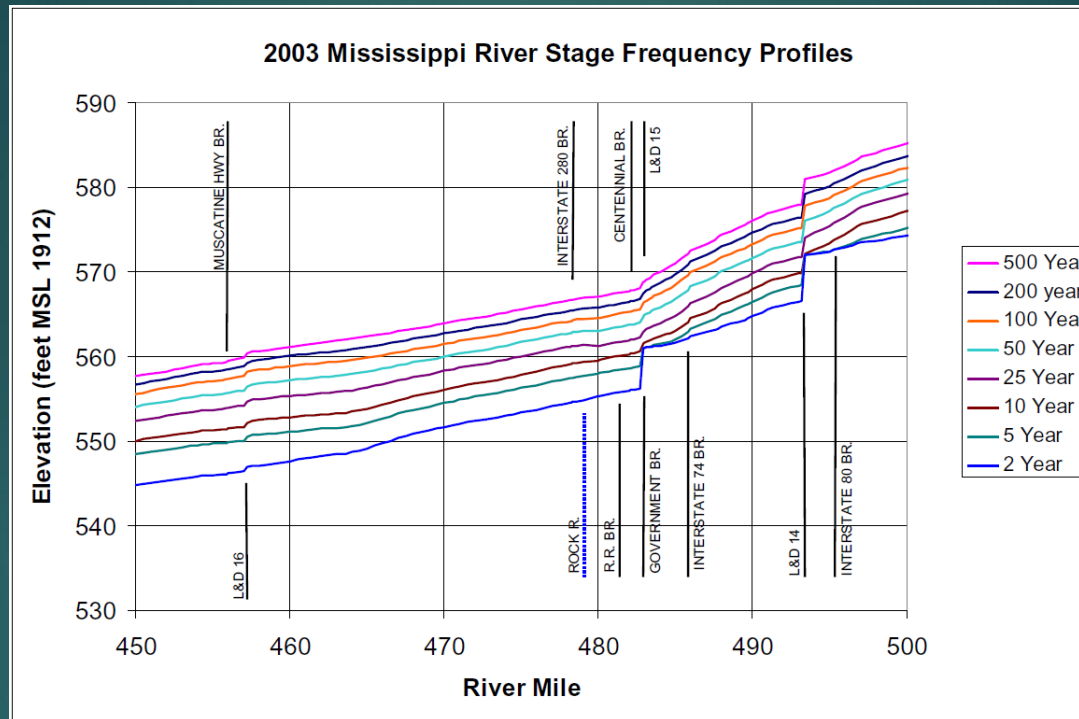# Live Demonstrations

▶ Elevation finder

http://geoserver.dnr.illinois.gov/elev/
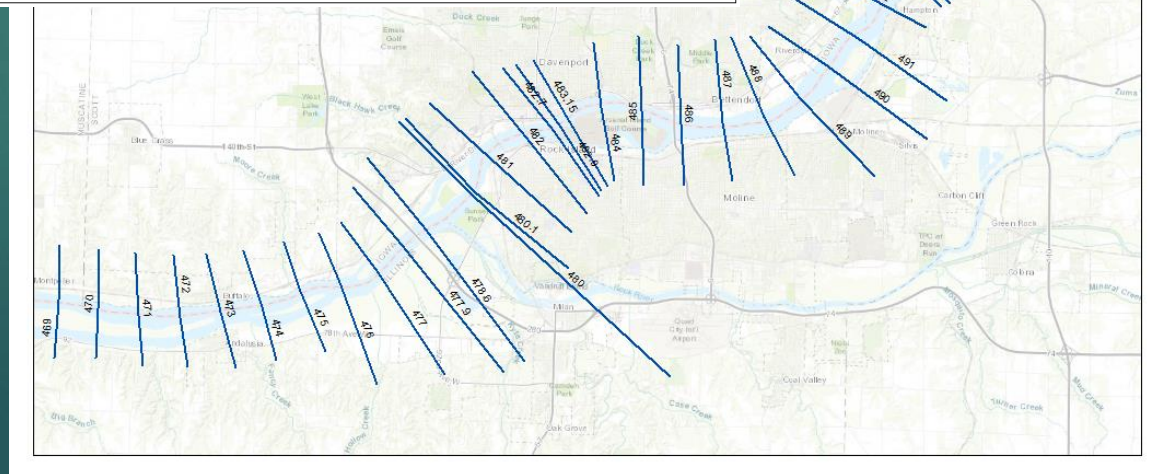

▶ Upper Des Plaines River Inundation

http://geoserver.dnr.illinois.gov/UDPR_INUND/inund3pub.html

# Detailed Hydraulic Model (USACE)



2003 Mississippi River Stage Frequency Profiles

Provides elevations at each cross section for each frequency profile

638:8
638:8
638:7
638.6
638:5
638:4
638:3
638:3
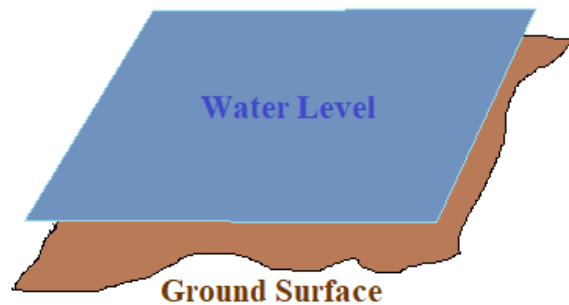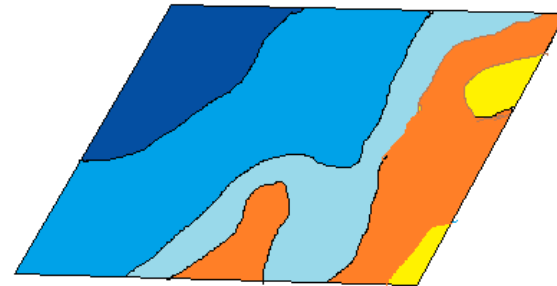**638.1**
**Gauge Cross Section**
637:9
637:9
637:4
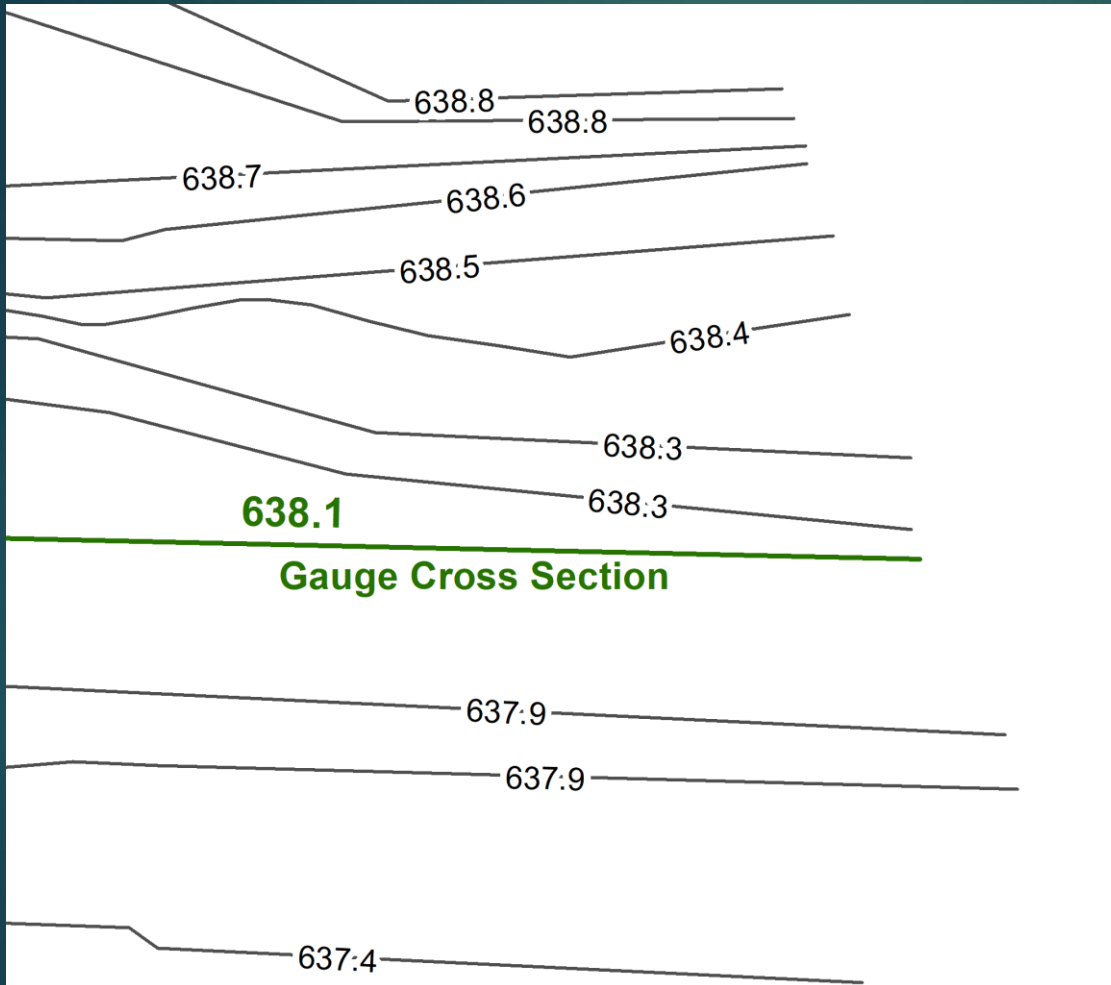
The model of standard frequency profiles is used to predict elevations for other cross sections based on the stage elevation.

A water level (surface) is then created from these cross section elevations.
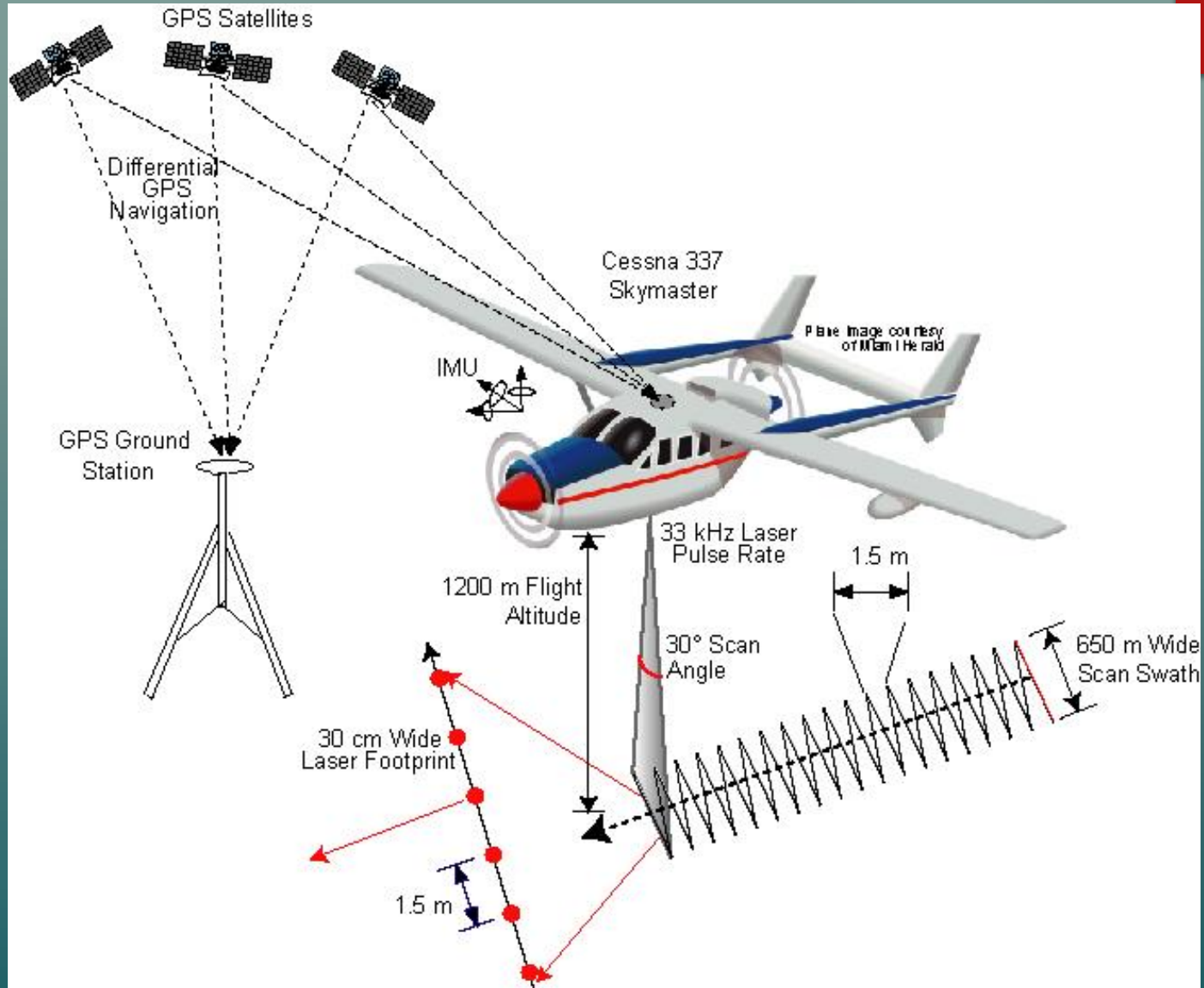
# Generating Inundation Layers



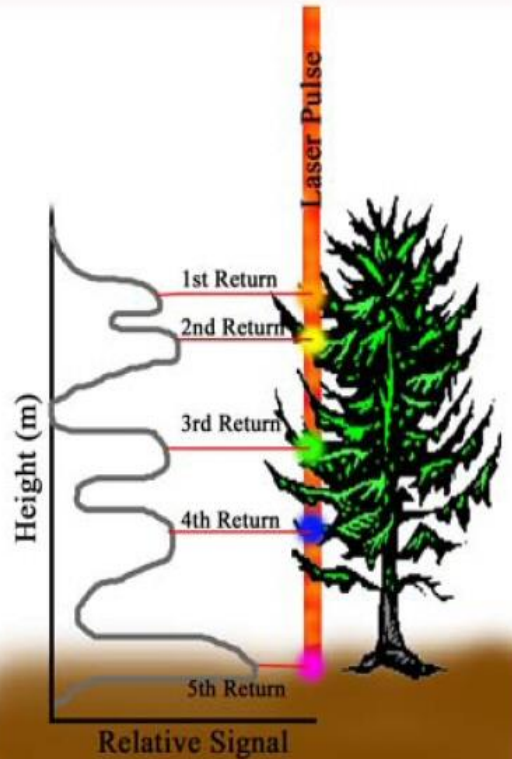Subtract the Ground Surface from the Water Surface to get a Depth Grid

Set Colors based on Depth Class
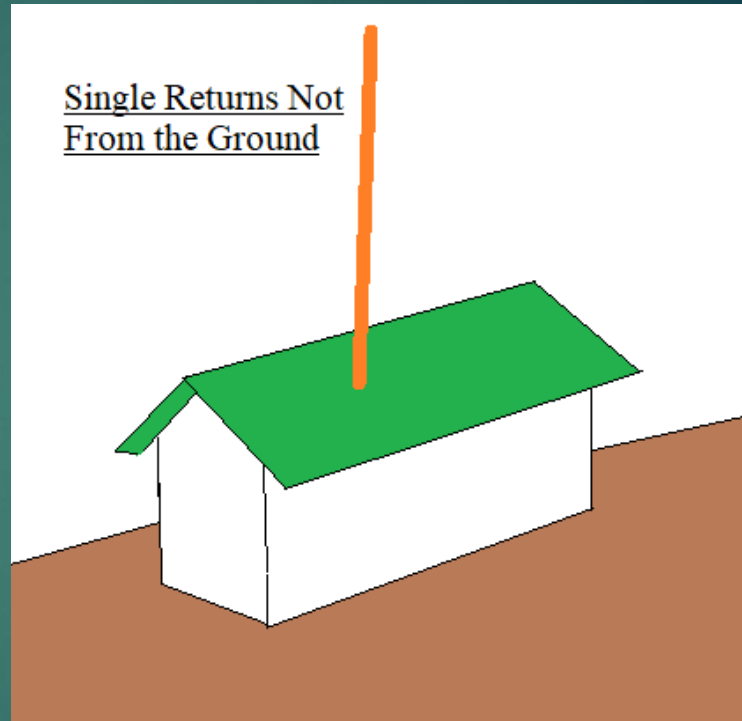
# Basic Concept of LiDAR Collection



► Example from Florida International University

# LiDAR Point Classification



Example from Penn State University

# Illinois Height Modernization Program

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