New Developments in GIS

Date Entry, Delivery, and Visualization

Data Entry – GPS will shrink in size, expand in uses

GPS capabilities will improve
Higher real-time accuracies
Faster response
Better data display
Easier integration
**GPS - extended technologies**

*e.g., laser rangefinding*

**Laser Locator**

Laser locator allows the determination of range, azimuth (bearing), vertical angle (elevation), target offsets, and horizontal angles.

*The Laser Locator is an instrument to use:

- Distance
- Field of view
- Digital Cadastre
- Height measurement*
Oblique, 3-D, Other Images

Indoor Mapping

New Platforms - RPVs
Experimental Platforms

Miniaturization

Data Deliver – via the web currently data are provided; in the future, updated, analyzed online
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GPS Tracking - Integration with Wireless Services

Open Source

Open Source
Inexorable Miniaturization & Diffusion

Velodyne Technologies

Resource Assessment:
Low-stature vegetation
Herbivory Assessment
Clip plots, biomass removal vs. LiDAR response

Radic et al., 2009