



# Using GIS data to improve airspace safety & efficiency

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# A few relevant aspects of NextGen

- **Airports GIS** online mapping warehouse
- **ADS-B** - Automatic Dependent Surveillance-Broadcast equipment will link location data between aircraft & ATC to replace radar location
- **NVS Voice** System will replace radio communications
- **Data Comm & Flight Deck enhancements** will allow pilots access to digital information including approaches, traffic, weather (CSS-WX)
- **Enhanced Low-Visibility** operations improve landing safety
- **Collaborative Air Traffic Management (CATMT)** will allow multiple air traffic controllers to share information & improve efficiency

# Anticipated benefits of NextGen

- Reduced **fuel consumption and emissions**
- **Speed up travel** by reducing delays due to congestion
- Improved cockpit **weather** information access
- **NVS voice system** improves communications existing radio
- **ADS-B uses GPS** to improve aircraft location data, replacing radar to increase efficiency and avoid collisions

# Airports GIS program basics

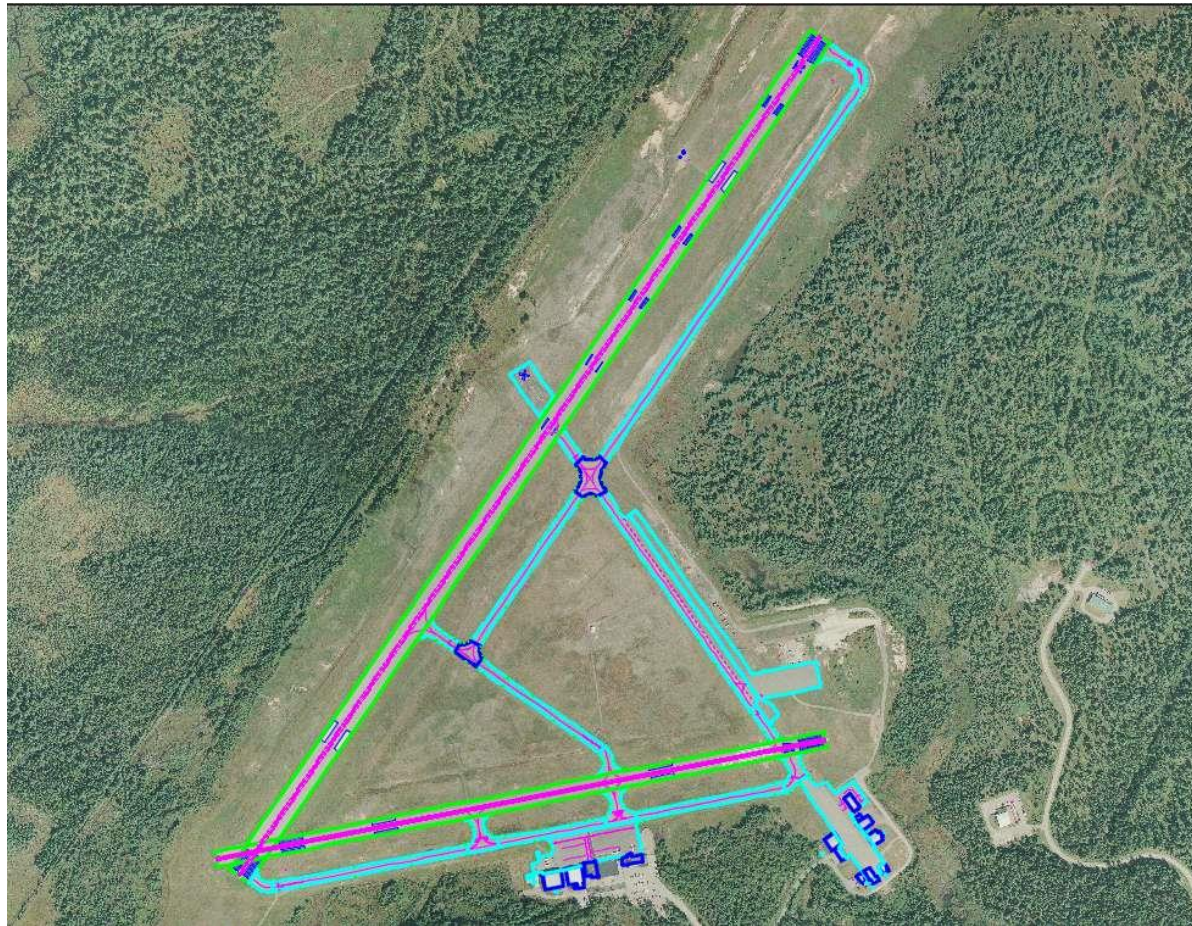
- An **online portal** to store geographic information
- Users can **upload changes** in location of safety-critical features such as runway ends, thresholds, navigational aids
- Can also store **many different features** such as property lines, noise contours, pretty much anything related to the airport
- After upload the FAA & NGS can **check for accuracy** and completeness

# Obstruction Analysis

- One of the aspects we've been closely involved in
- Photogrammetry & LiDAR used to analyze imaginary surfaces
- Any change in runway endpoint or threshold requires obstacle analysis
- Potential obstacles are attributed as to surface affected, elevation, type
- Safety-critical features, geodetic control points, all pavements & markings are re-surveyed & submitted

# KSLK Adirondack Regional

Saranac Lake,  
New York



# KSLK Adirondack Regional (Runway 27 Threshold Change)





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Providing the Northeastern United States with aerial photography and photogrammetric mapping products and services

