Unmanned Aerial Systems (UAS)

Changing the way we see technology

Features

- Deliverable types
  - Photos
  - Videos
  - 3D models
  - Engineering quality aerial imagery
  - Sensor data
  - Automated and manual GIS image analysis and mapping
- Sensor types
  - True color aerial imagery
  - High definition video
  - Infrared vegetation sensors
  - Thermal imagery for heat
  - More to come

Audience

County employees

Team members

Ross Martin, GIS Manager
Melanie Casey, Sr. GIS Analyst
Randy Yakos, Sr. GIS Analyst
Javier Ramos, GIS Analyst
Ian Dawes, GIS Analyst
Gene Schweizer, GIS Analyst

Our Rapid Eye in the Sky

The County of San Diego's Land Use and Environment Group's GIS team is proud to announce the creation of an unmanned aerial systems (UAS) program. UAS, also referred to as "drones," is an innovative technology for mapping aerial imagery and GIS data creation and is now available to all County departments. UAS has broad applications for local government, particularly in land use, agriculture, environmental monitoring, and public safety. The technology is affordable now and serves both as a supplement and replacement for traditional full-sized aircraft in missions such as but not limited to agricultural management, pest detection, aerial photography, wildlife studies, search and rescue, disaster response and recovery, construction monitoring, and facility inspection. The use of UAS has the unique ability to both cut costs through faster data capture, accessing areas that are normally inaccessible on foot, *and* minimizes risk to field employees working in hazardous terrain.

County UAS flight crews are trained, experienced, and certified remote pilots through the Federal Aviation Administration, and meet the rigorous standards set in the County's UAS policy for commercial UAS operations.

The successful creation and implementation of the drone program highlights the County's desire to embrace new technology that expands capabilities, decreases costs, and increases quality.

Benefits

- Able to collect data not visible to the human eye
- Numerous enhanced efficient field data methods (saving staff time and productivity costs)
- Able to collect data from unsafe/hazardous ground areas
- Rapidly acquire high quality imagery
- Two experienced flight teams
- Low site impact
  - No ground disturbance
  - No carbon emissions
  - Discrete and low noise

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