

# The National Geospatial Technology Center of Excellence and a look at the future of Geospatial Technology

Vincent A. DiNoto, Jr.  
Director of GeoTech Center  
[Vince.dinoto@kctcs.edu](mailto:Vince.dinoto@kctcs.edu)  
<http://geotechcenter.org>



*Empowering Colleges:  
Expanding the  
Geospatial Workforce*



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# sUAS Types

- Devices
  - Fixed Wing
  - Multi-rotator
- Sensors
  - Video
  - Still images
  - 4 band (near IR, RGB)
  - Multispectral
  - Thermal IR
  - LiDAR



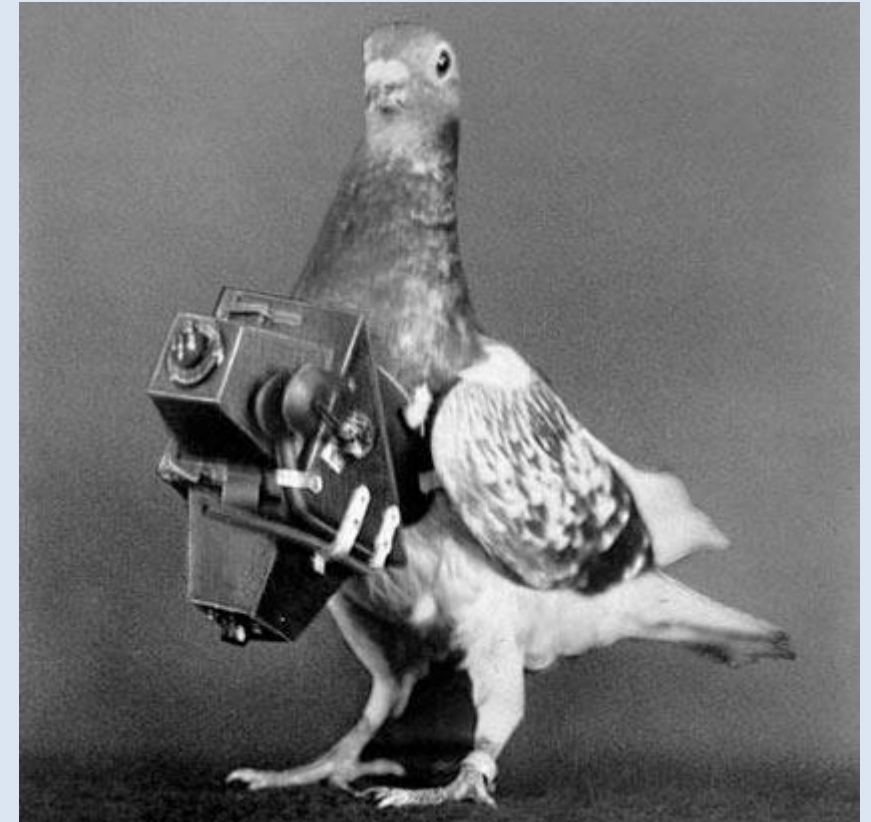
# Specifications

- Payloads of less than 55 pounds.
- Aircrafts must be registered.
- Must pass a part 107 FAA exam to fly and be certified. Unless a hobbyist.
- All outdoor flights are controlled by the FAA.
- Limitations on elevation, airports, time of day, location of people.
- Exemptions are available for specific tasks. Such as flying at night.



# Uses

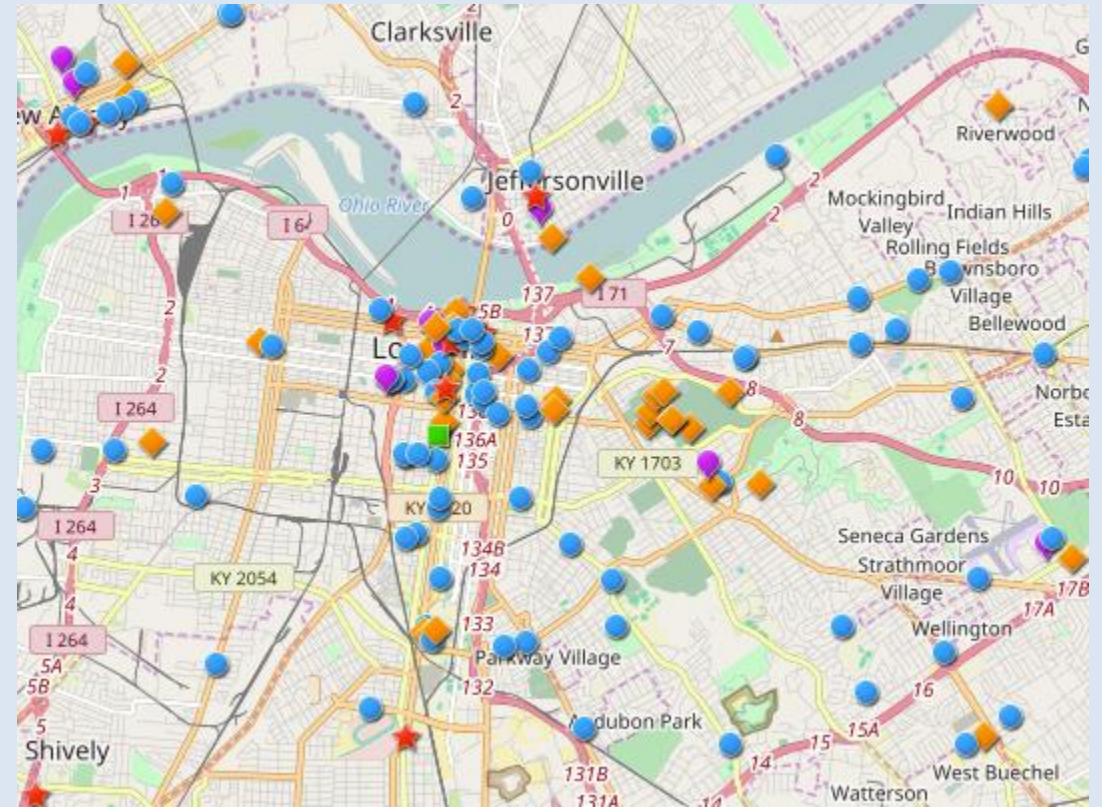
- First responders (RGB, Thermal IR)
- Agriculture (multispectral, 4 band)
- Volumetric measurement (RGB)
- Elevation measurements (LiDAR, RGB)
- Environmental (RGB, Thermal IR)
- Real Estate (RGB, Video)
- Energy (RGB, Thermal)
- Natural Disasters (RGB, Thermal, Video)





# Open Source Maps

- **Open Street Map** is the Wikipedia of Mapping! Who curates' it?
- The Cartography of Open Street Map can be changed by the user. Can be edited in multiple softwares.
- Open Street Map used as your base layers gives the designer the ability to modify both the basemap and the production layers.



# Story Maps

- Bringing together writing, photography and spatial technologies.
  - On a map you try to tell a story, but many times they don't tell the full story, Even when creating a poster.
  - Story maps can combine photographic elements, written text, historical timelines, compare and contrast features.
- There are templates that require little to no coding.
- Google Tour, Esri Story Maps and Knightslab are good examples of free software and services.

# Geospatial Personal Assessment

- GISCI, USGIF, ASPRS, and vendor certifications
- GeoTech Center's Personal Assessment Instrument is bring forth information about strengths and weaknesses in the user community.
  - Weaknesses include:
    - Data management
    - Statistics
    - querrying
- Accessible from the <http://GeoTechCenter.org> on right side of website (takes about an hour).