KyFromAbove Phase 3 Imagery Status Update Interim Joint Committee On Local Government

August 22, 2024

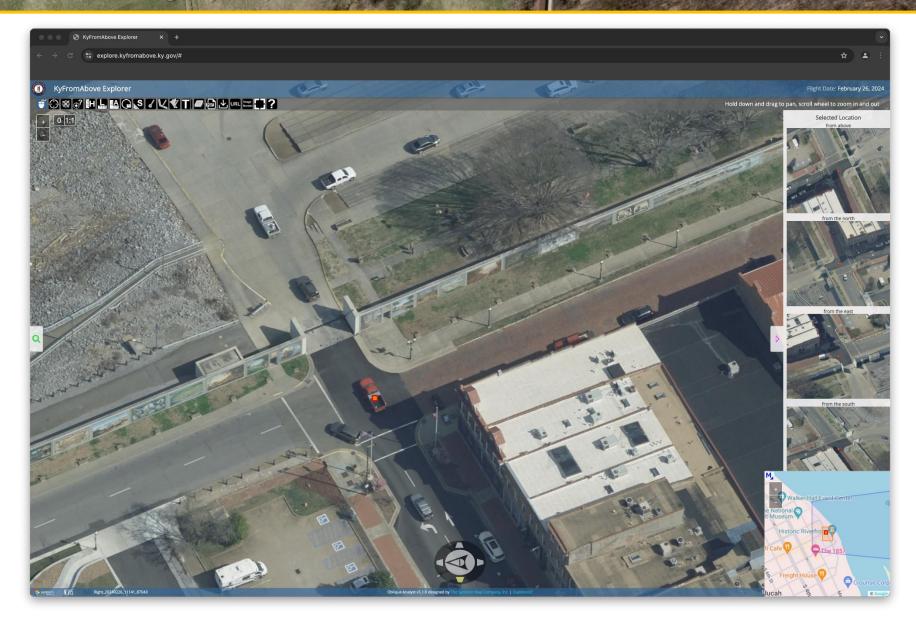
TEAM KENTUCKY.

FINANCE AND ADMINISTRATION CABINET

- Statewide acquisition completed in April 2024
- Kentucky is the first state in the nation to reach this milestone
- Oblique imagery (side/angle view) available for 101 counties (84%)
- Ortho imagery (top-down view) available for over 10 counties
- We have begun Year Two ortho imagery review
- We have launched KyFromAbove Explorer Landing and Help Page
- Base map services and downloadable data are forthcoming



Phase 3 Imagery: KyFromAbove Explorer



KyFromAbove Explorer – Hosted on AWS EC2

Phase 3 Imagery: KyFromAbove Explorer



Table of Contents

- User Interface
- Navigation
 - Zooming
 - Panning
 - <u>The Compass</u>
 - Changing the Perspective
 - Using the Locator Map
- Selecting a Location
 - Address Selection
 - Interactive Selection
 - Clearing the Selection
 - Switching Views
- Drawing Tools
 - Drawing Points
 - Drawing Lines
 - Drawing Polygons
 - Inserting Text
 - <u>Erasing Drawings</u>
- Measurement Tools
 - <u>Coordinates</u>
 - Measuring Heights
 - Measuring Lengths
 - Measuring Areas
 - · Measuring Length and Area at Height
 - Measuring Slope
 - <u>Copying Measurement Text</u>
 - Measurements as Drawings
- Working with Layers
- Sharing a Link
- <u>Creating a PDF</u>
- <u>Starting the Viewer with URL Parameters</u>

This page contains detailed information on how to use the <u>KyFromAbove Explorer</u> web mapping application. The Explorer allows users to view traditional ortho aerial photography and a perspective, or oblique view, of the same area.

When browsing, the Explorer selects the best photo for the current area of interest and then allows the user to switch between different perspectives such as looking straight down, or at angle from the north, south, east, or west.

Information on how to navigate, select a location, drawing, and measuring can be found in the table of contents. If you are a visual learner, check out the Overview Video below. It's a great resource!



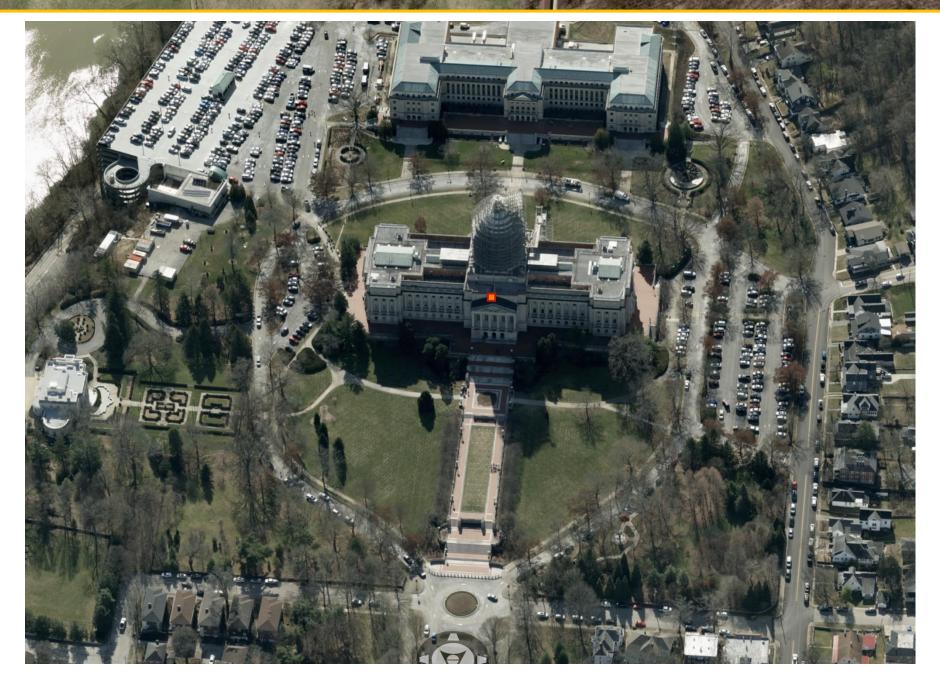
Overview Video

This video provides a thorough overview of how to use the KyFromAbove Explorer.

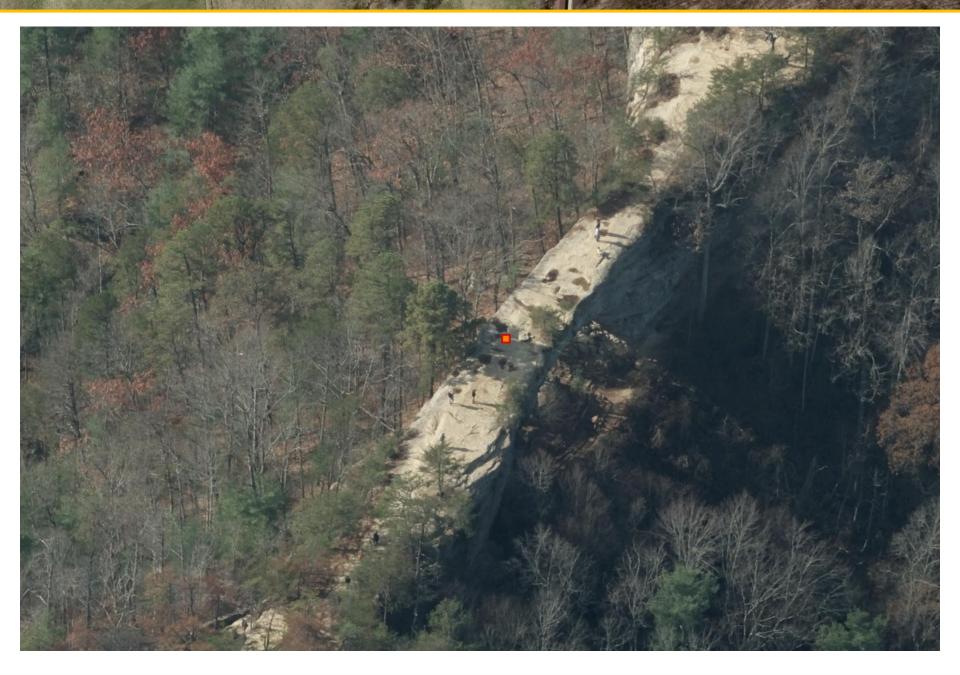
Visit the <u>KyFromAbove</u> website to learn more about Kentucky's Aerial Photography and Elevation Data Program.

NOTE: The KyFromAbove application is best used in Chrome, Firefox, and Edge. The current release does not work in Safari or on the iOS. It may work on the Android platform but has some limitations.

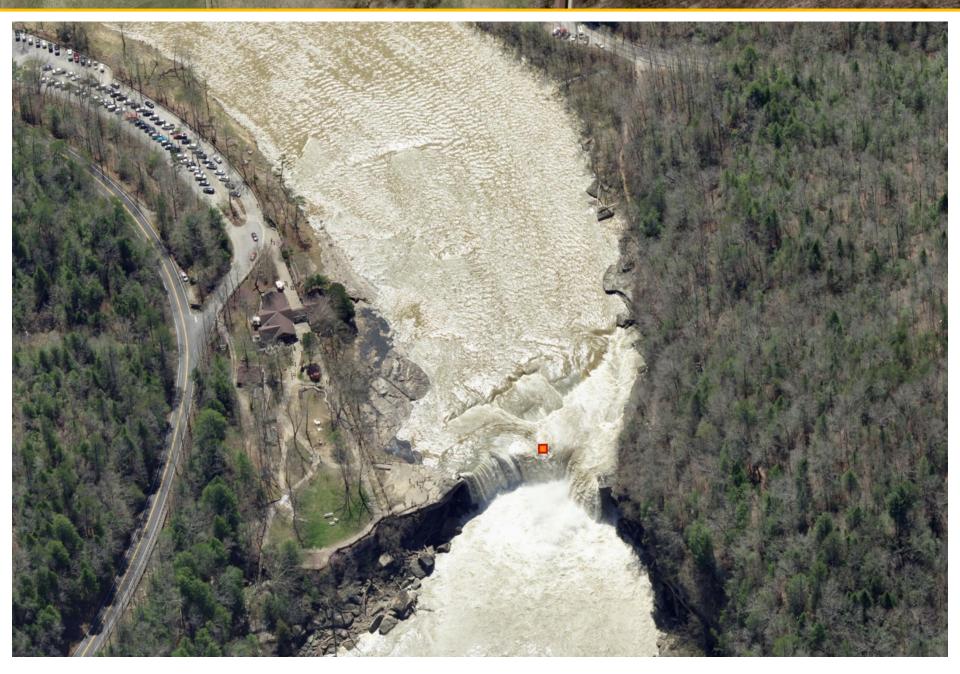
Phase 3 Imagery: Kentucky State Capitol



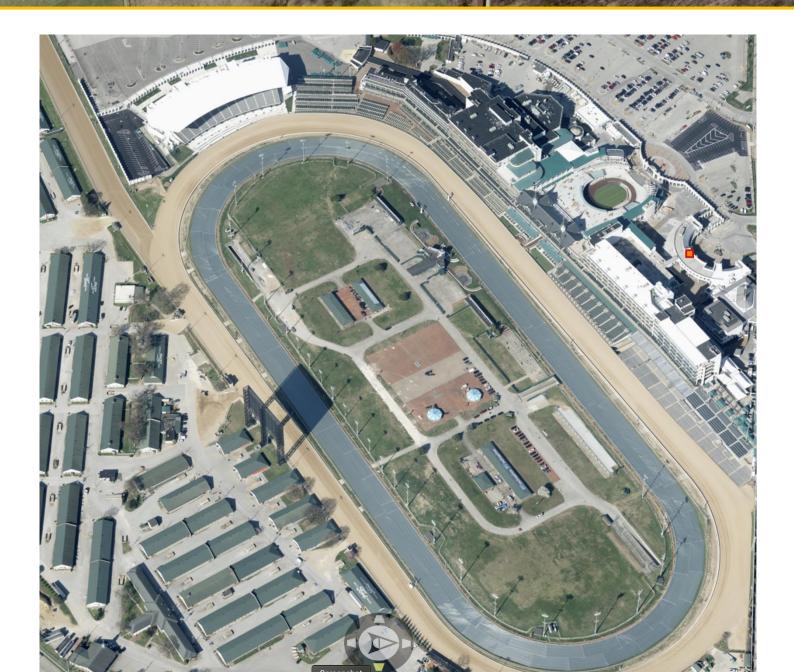
Phase 3 Imagery: Natural Bridge



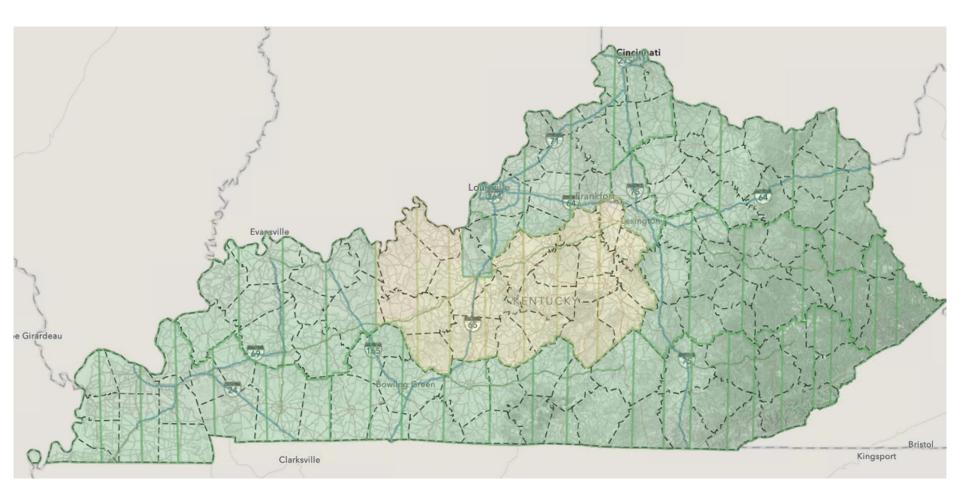
Phase 3 Imagery: Cumberland Falls



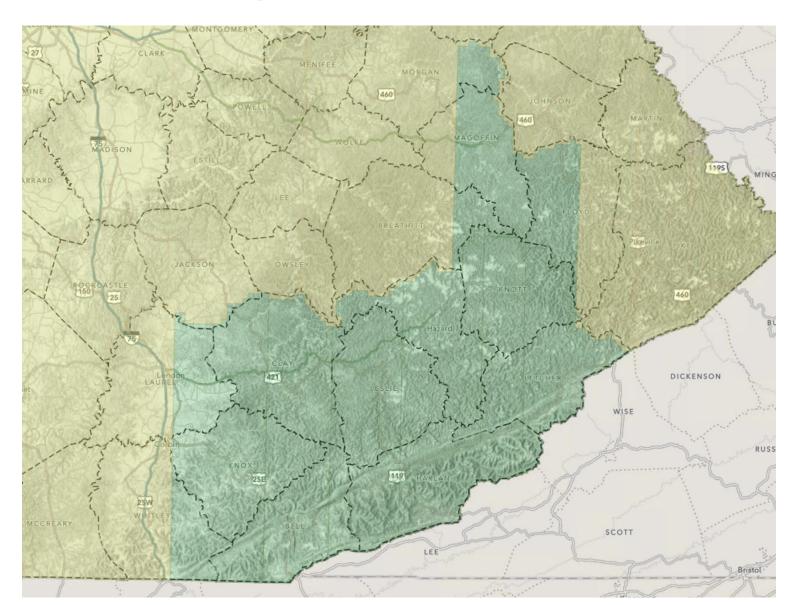
Phase 3 Imagery: Churchill Downs



Currently available in 101 counties!



Currently available in 10+ counties!



Phase 3 Imagery Integrations

- Next Generation 911 Portal
- GIS Desktop Software
- Cloud-based GIS Applications
- PVA GIS Operations (DOR)
- PVA Tax Roll Software

Guidance provided to:

- State Agencies
- City and County GIS departments
- Private Sector

"The KyFromAbove aerial photography initiative is highly beneficial to Kentucky's 117 certified PSAPs. Adding the ability to leverage oblique imagery is another valuable tool in the toolbox to increase situational awareness for first responders during emergencies and better direct emergency response." – Mike Sunseri, KOHS Deputy Executive Director / 911 Services Board Administrator



Phase 3 Imagery

- Used funds appropriated in the 22RS
- 3" resolution ortho and oblique imagery
- Statewide acquisition completed in two years
- Data hosted in an AWS S3 public bucket*
- No reauthorization or carry over of unexpended funds in the 24RS.
- Final invoice will be received in December

Kentucky Boundary Data and Mapping

Kentucky County Formation documents

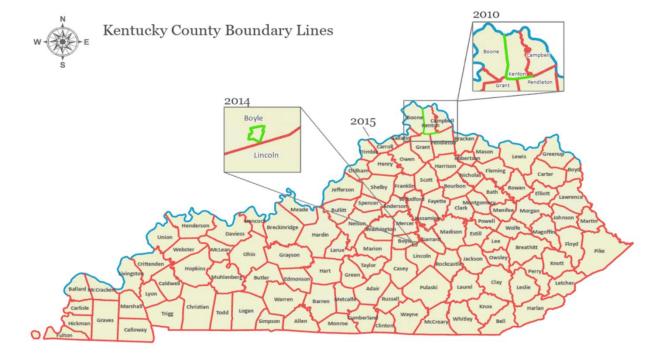
- In 1792, Kentucky was admitted to the union as the 15th state and the 120 counties were created.
- In this process, county formation descriptions were developed and filed.
- These are text-based descriptions with no mapping or surveying requirement.

| 1 Results found (1 Results shown; Page 1 of 1): |
|--|
| 1) Adair County (Current Location) |
| Parent County/Counties: Green |
| Date Approved: 1801-12-11 |
| Date Effective: 1802-04-01 |
| Present County Seat: Columbia |
| Formation #: 44 |
| Reference: Littell's "Statute Law of Kentucky", Vol. II, 1810, pages 429-431. |
| Note: Named in honor of Gen. John Adair, commander of the Kentucky rifle brigade at the Battle of New Orleans in the War of 1812 Adair later served as Kentucky Governor from 1820 to 1824. |
| Search for cities in Adair County |
| Text of Act Creating New County: |
| CHAPTER CCCXLVIII. An ACT for the division of Green County. Approved December 11, 1801. BE it enacted by the general assembly, That from and after the first day of April next, all that part of the county of Green, included within the following bounds, to wit: beginning on Green river, ten miles on a straight line above Green court-house; thence a line so as to strike a point one quarter of a mile due north from Maj. Daniel Trabue's house; thence a line to strike the Barren county line; s as to leave James Mitchell one quarter of a mile in the county of Green; thence with the Barren line to Cumberland county line; thence with said line to Wayne county line, and with said line to Pulaski county line; thence with said line to Lincoln county line; thence with the same to the ridge dividing the waters of the Rolling fork from Casey's creek; thence to the head of the ridge betwee Casey's creek and Robinson's creek; thence with said ridge to Green river; thence with the same to the beginning, shall be one distinct county, and called and known by the name of Adair. |
| the courts of quarter sessions shall be held in the months of February, May, August, and October; and the county courts in every |
| |

- USGS was the primary source for mapping data into the 1990s.
- USGS 7.5 Minute topographic maps for Kentucky were created from 1946 – 1992.
- County boundaries shown on those maps are based on sign off by locally elected officials.
- The boundaries shown on USGS maps are often regarded by the general public and local authorities as representing authoritative locations.
- Some states have adopted the USGS County boundaries through legislation.
- The Kentucky County boundary layer was one of the first GIS layers created by State Government.

Kentucky State and County Boundary GIS Data Sources

- In 1993, KYTC completed digital mapping of county boundaries from the USGS maps (red line)
- Supreme Court case defined Ohio River boundary (blue line)
- A couple county boundaries have been changed through Acts of the legislature (green lines)



- USGS TOPOGRAPHIC MAPS BOUNDARY (1993)

-OHIO V. KENTUCKY, 444 U.S. 335 (1980) - SURVEYED BOUNDARY LINE

- BOUNDARY CHANGE AUTHORIZED BY AN ACT OF THE KENTUCKY LEGISLATURE - SURVEYED BOUNDARY LINE

Kentucky City Boundary GIS Mapping

- The city boundary GIS layer is based *solely* on filings with Secretary of State's Land Records Office.
- The ADDs worked with City Officials to map the boundaries as filed from 1981 2002.
- From that point forward, city boundary mapping was done at the state level.
- The accuracy of the boundaries is based on the accuracy of the boundary data source.
- Accuracy of city boundaries has improved over time by amendments to the filing requirements.
- The latest amendment to require a digital file produced by a surveyor expedites the mapping process while also maintaining the accuracy and integrity of the surveyor's work.

Kentucky Boundary Summary

- The Secretary of State's Office is the repository for all Kentucky boundary records and information.
- Kentucky's digital boundary layers as maintained by DGI, are the authoritative source for Kentucky.
- Kentucky's boundary layers have been adopted by the U.S. Census Bureau; annual updates are provided through the Boundary and Annexation Survey (BAS) Program.
- Kentucky boundary mapping is based *solely* on the Secretary of State's repository of official filings.

- . Basemap layer for mapping
- . Rural and Municipal Road Aid
- . Legislative district boundaries, voting precinct boundaries
- . Local Government Premium Tax Jurisdiction determinations
- . Flood insurance rate determinations
- . Alcohol Beverage Control designations
- . State and Federal Grant programs
- . US Census Bureau/Federal Government

Questions?

TEAM KENTUCKY.

FINANCE AND ADMINISTRATION CABINET



Kimberly Anness Division of Geographic Information

<u>https://kygeonet.ky.gov/</u> <u>https://kyfromabove.ky.gov/</u>