



Virginia Information Technologies Agency

# GIS and the Virginia Geographic Information Network (VGIN)

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JCOTS – August 5, 2009





## Presentation Summary

- Overview of:
  - Where VGIN falls in the VITA Organization
  - Discuss the partnership between VGIN and E911/Public Safety
  - Highlight Code of VA pertaining to VGIN
- Discuss the geospatial services that VGIN offers/plans to offer
- The bigger picture with GIS in government
- Discuss GIS strategic planning efforts



# GIS Coordination

## Virginia Geographic Information Network (VGIN)

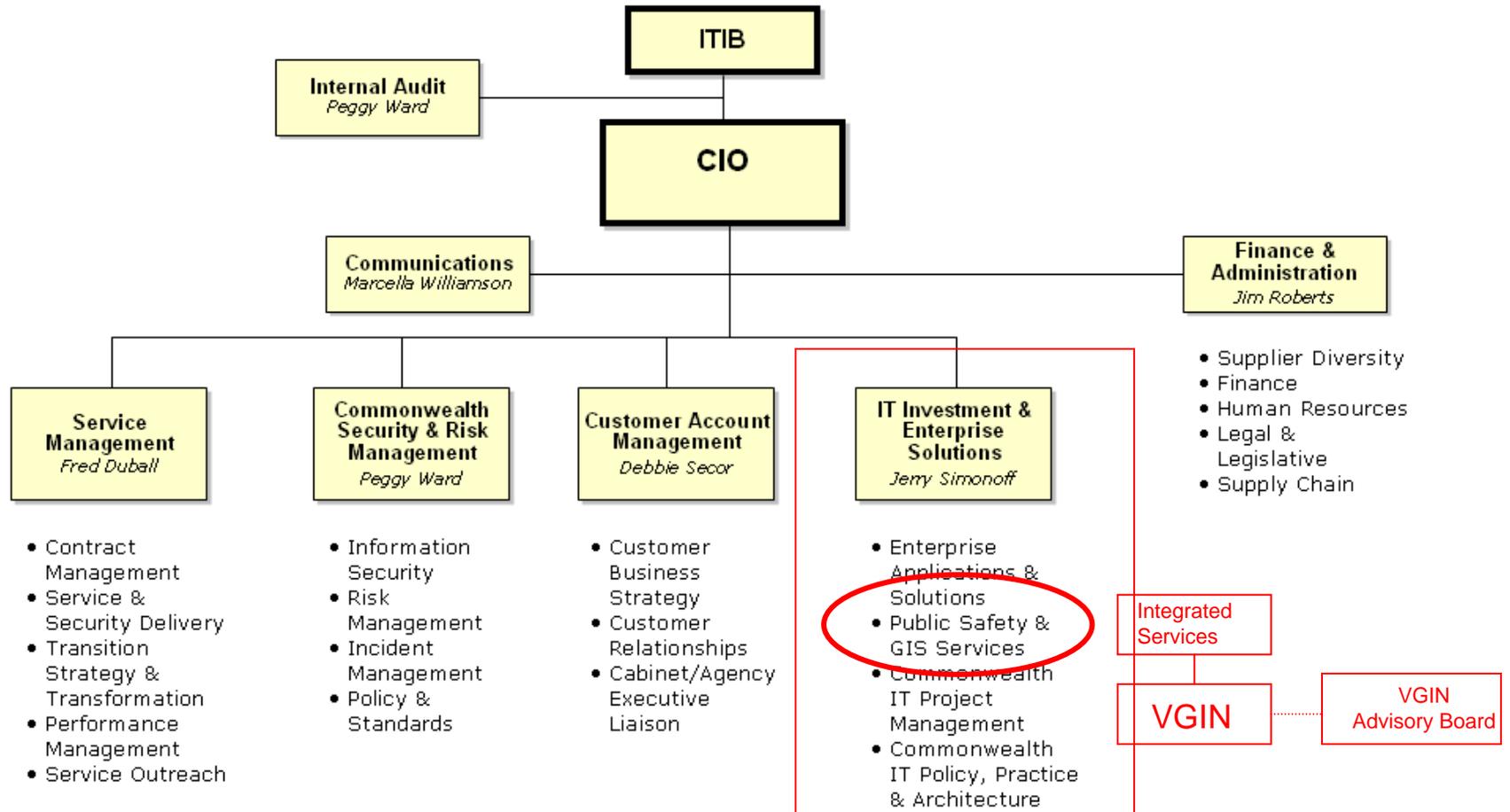
A **State function**, along with Public Safety/e911, within the Integrated Services Program of the Virginia Information Technology Agency

*Integrated Services Program*





# VITA Organization





## Partnership: VGIN and Public Safety/E911

- Integrated Services Program established in 2006 – led by Steve Marzolf
- <http://www.vita.virginia.gov/isp/>
- Goals:
  - Leverage existing GIS and Public Safety services and promote partnerships where feasible
    - E.G.: 7 Regional Coordinators for local and regional GIS and Public Safety needs
    - These also align with OCP and VSP regions
  - Avoid duplication, focus on overlapping needs
    - E911 GIS needs equal 90+% of common GIS needs
  - Promote shared services and enterprise approaches, particularly for localities
    - Examples include: common base map data with an eye towards the enterprise, use of common regional and statewide data, software interoperability, technology interoperability (web services)



## GIS Coordination

### Virginia Geographic Information Network (VGIN)

Established 1997 in Code of VA

Mission:

“Foster the creative utilization of geographic information and oversee the development of a catalog of GIS data available in the Commonwealth”

Organization:

- Currently consists of:
  - 6 staff, 2 in process of hiring
  - Current Staff Positions: Coordinator, 2 Project Managers, 2 Technical Services Specialists, 3 GIS Data Analysts
- Regional Coordinators shared with E911
  - Focus on PSAPs and locality GIS



VITA

ITIES

Integrated Services Program

Virginia Geographic Information Network

Geospatial Coordination

Enterprise Products and Services

Policy

Coordination

Application Services

Geospatial Data Management

Partnership Development

GIS User Community Coordination

Geospatial Project Management

Enterprise Geospatial Data Repository

Data Model and Standards Development

Spatial Data Infrastructure Coordination

Application Hosting

Framework Data Development and Maintenance

Promotion and Outreach

End User Support – State, Local, Education, Private GIS, Public Safety and Radio Engineering Synergies

Geospatial Needs Assessment and Consulting

Web Map Services

Geospatial Metadata Services

Geospatial Data Hosting



# GIS Coordination

## Virginia Geographic Information Advisory Board

- **Established by Code** (§ 2.2-2423)
  - Along with the Coordinator position
- **Purpose, Powers and Duties:**

*"To facilitate the cost-effective development and use of spatial data, GIS, and related technologies in organizations throughout the Commonwealth and to advise the Division of the Virginia Geographic Information Network on issues which foster the creative utilization of geographic information and oversee the development of a catalog of GIS data available in the Commonwealth."*
- **Advisory in nature**



# GIS Coordination

## Virginia Geographic Information Advisory Board

- **Composition: (18 members appointed as follows)**

9 nonlegislative citizen members to be appointed by the Governor:

- one agency director from one of the natural resources agencies
- one official from a state university
- one elected official representing a local government in the Commonwealth
- one member of the Virginia Association of Surveyors
- one elected official who serves on a planning district commission
- two representatives of utilities or transportation industries utilizing geographic data
- two representatives of private businesses with expertise and experience in the establishment, operation, and maintenance of geographic information systems

4 members of the House of Delegates, to be appointed by the Speaker of the House of Delegates

2 members of the Senate, to be appointed by the Senate Committee on Rules

1 Chief Information Officer

1 Commonwealth Transportation Commissioner

1 Executive Director of the Economic Development Partnership Authority or their designees who shall serve as ex officio voting members

- **Term:**

Five years; no more than two consecutive full terms. Legislative members shall serve for terms coincident with their term of office.



# GIS Coordination

## Virginia Geographic Information Advisory Board

### Current Appointed Membership

Constance Brennan, Faber  
W. Page Cockrell, Virginia Beach  
Stanford T. Hovey, Urbanna  
John D. Jenkins, Dale City  
James Wilson, Harrisonburg  
Jeffrey M. Anderson, Charlottesville  
Joseph Maroon, Midlothian  
David Ekern, Chesterfield  
Charles W. Donato, Richmond  
Richard Pevarski, Hardy  
Christopher R. Knights, Barboursville

### Senate Appointees

John C. Watkins, Chesterfield (Chairman)  
Mark Obenshain, Harrisonburg

### House Appointees

David L. Englin, Alexandria  
Jeffrey M. Frederick, Woodbridge  
Samuel A. Nixon, Jr., Chesterfield  
Salvatore Iaquinto, Virginia Beach

### Ex Officio Member

Chief Information Officer

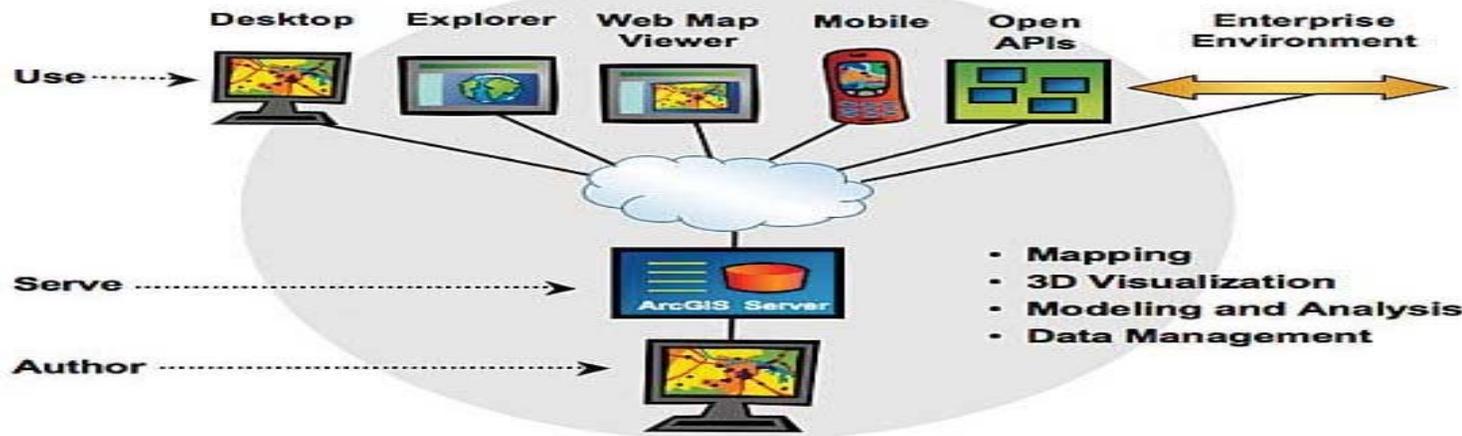


## VGIN Geospatial Services

- Base Mapping Development & Management
  - e.g. Orthophotography, Road Centerline, Hydrography
- Data delivery via web services
- Data and Application Hosting
  - Geospatial Enterprise Platform
- Geospatial Needs Assessment
- Geospatial Project Management
- Listservs for communication
- Geospatial Metadata portal  
<http://gisdata.virginia.gov>

# The Bigger Picture – GIS Technology

- Web Services and Service Oriented Architecture
  - Source systems and consumers
    - Author, publish and consume



*Making GIS Knowledge Available to Anyone . . .  
 . . . Integrates with Other Systems via Standards*

Source: ESRI



## State Agency GIS

- Fewer resources available to agencies
- Cost of building agency GIS remains prohibitive
- VGIN hosting more realistic, where it makes sense
- Some larger agencies need to invest in GIS to support business needs
  - Others can leverage VGIN where appropriate
- All should follow SOA to promote interoperability and not duplicate available enterprise services
- All parties need to communicate



# Commonwealth GIS Strategic Plan

## Create a Five Year GIS Strategic Plan



- Establish a Vision for Virginia GIS
- Identify Strategic Initiatives based on stakeholder requirements
- Identify Implementation strategies and guidelines



## Why Do a Strategic Plan Now?

**Leverage State and local government geospatial investments thus saving time and money**

- Provide needed geospatial services to stakeholders
- Provide clearing house that supports an interoperable geospatial environment
- Establish data and process web services that can be consumed by stakeholders



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# Examples



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# Virginia Metadata Portal

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GISData.Virginia.gov

Home - GISData.Virginia.Gov -- Windows Internet Explorer  
http://prime.esri.com:8181/Portal/

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VIRGINIA INFORMATION TECHNOLOGIES AGENCY

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Advanced Search

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WAI Compliant

W3C WAI-A WCAG 1.0

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 Anywhere  
 Use geographic extent  
 Exact text search  
Find A Place  
 Data must fall completely inside area  
Launch Map Viewer to Draw Box  
Get Box already drawn on Viewer

What  
Data Category: [Any]  
Type/Format: [Any]  
Thesaurus: [No Thesaurus used]  
 Synonyms

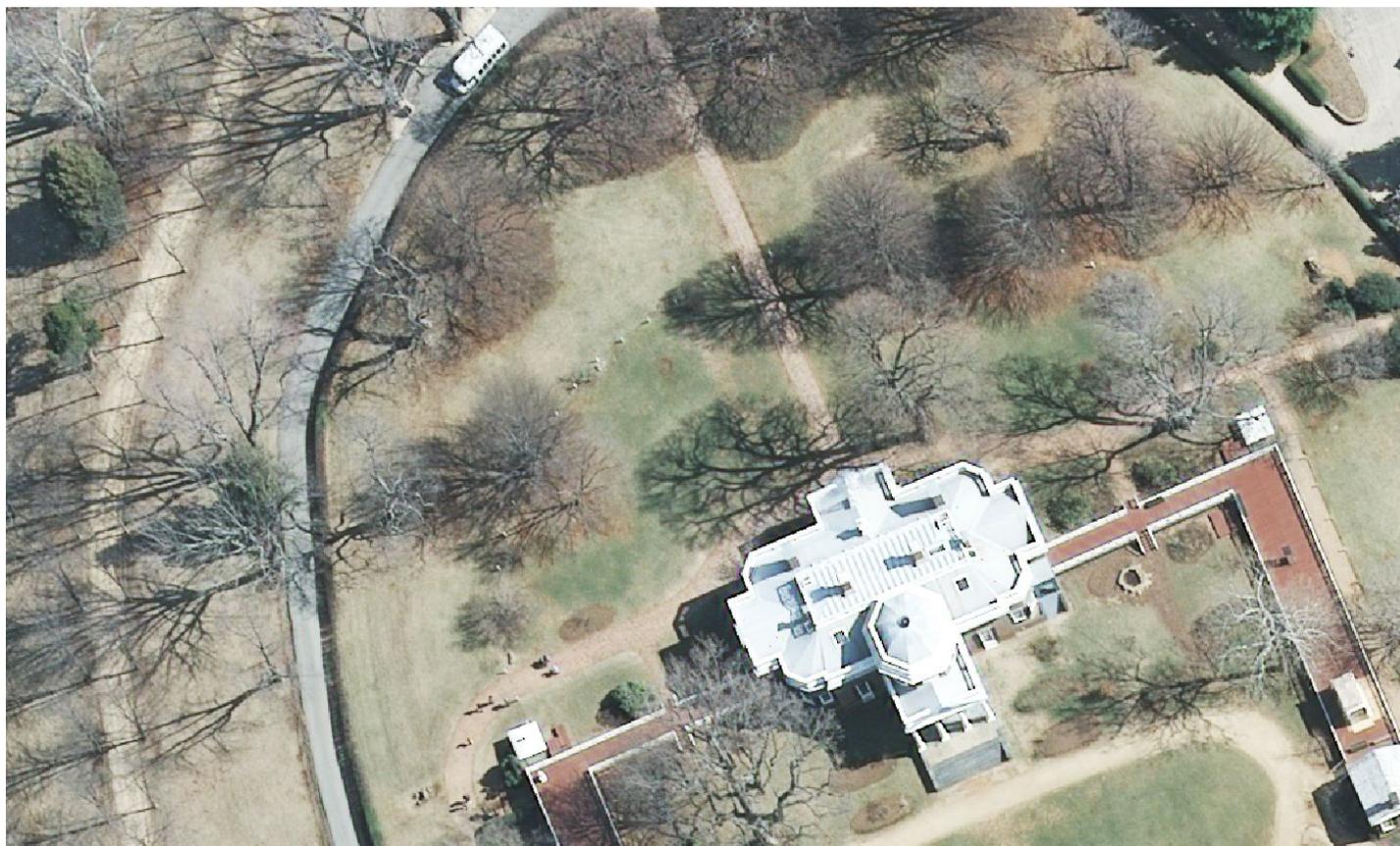
When (use 'YYYY-MM-DD' format)  
 Anytime  
 Time Period: From: To:  
 Date Posted: After:

Who  
Publishing Organization: [Any]



# Raw Image Samples

Monticello (6 Inch) – February 21st, 2009





# Image Comparisons

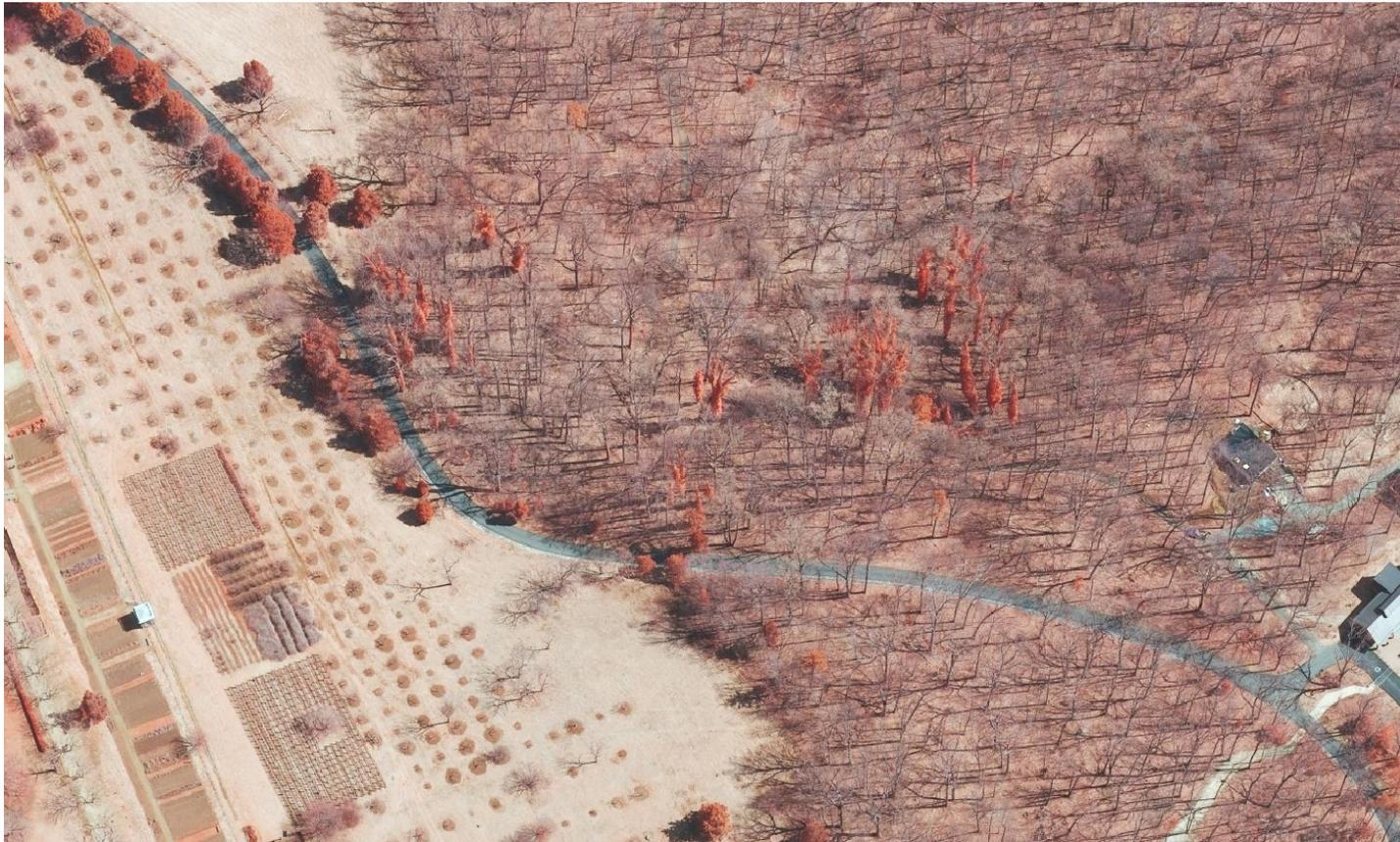
Monticello (6 Inch) – True Color





# Image Comparisons

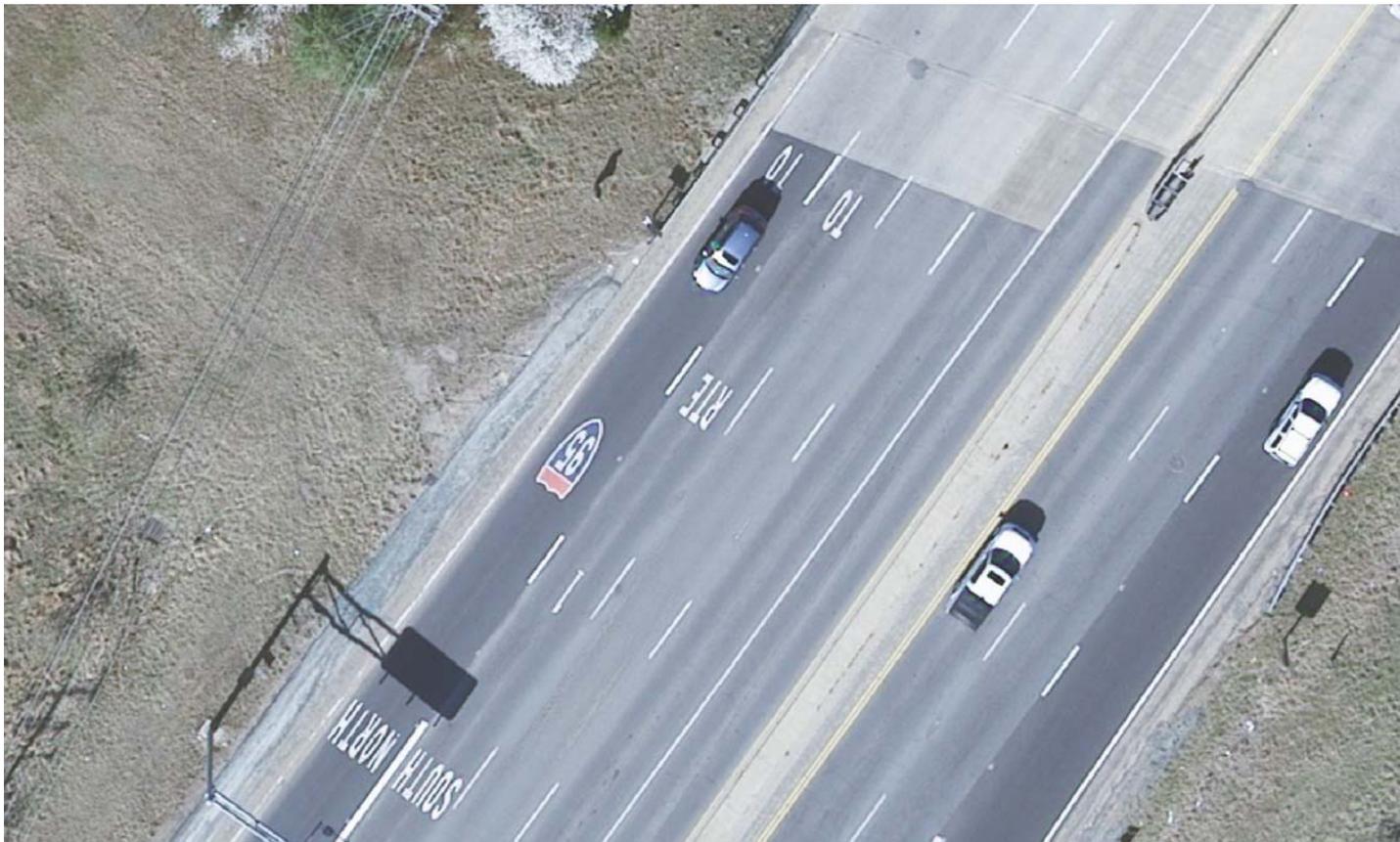
Monticello (6 Inch) – Color Infrared





# Raw Image Samples

Stafford County (3 Inch) – March 31st, 2009





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## Questions?

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