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What is ConnecticutView?



<http://ctview.org>

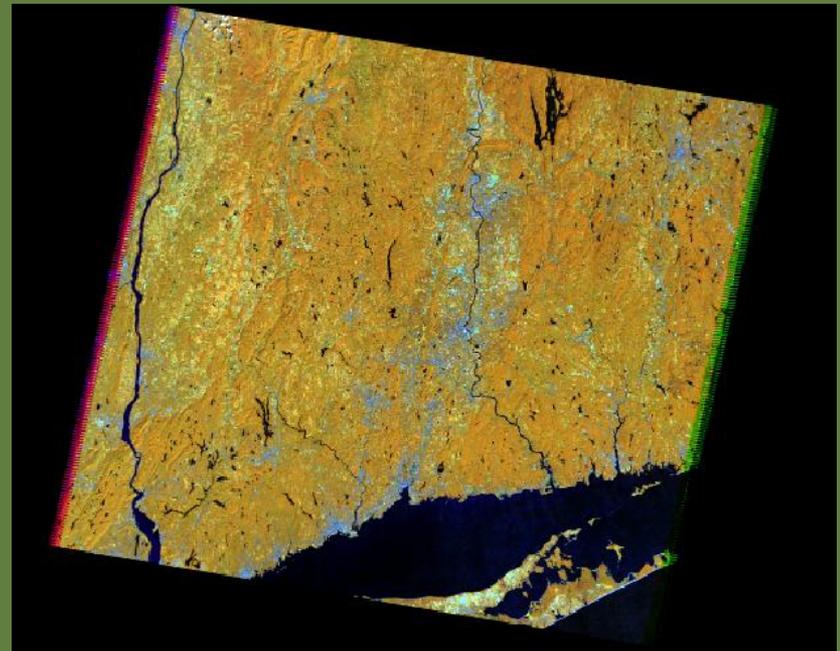
Overall Purpose:

To promote the use of satellite remote sensing data and technologies in Connecticut.

ConnecticutView is part of the AmericaView program.

Principal participants at UConn:

- Daniel Civco
- Michael Howser



About AmericaView



<http://americaview.org>

AmericaView is:

A nationwide program that focuses on satellite remote sensing data and technologies in support of:

- applied research
- K-16 education
- workforce development
- technology transfer

About AmericaView



<http://americaview.org>

The AmericaView Consortium:

Comprised of university-led, state based consortia, focused on building a nationwide network of state and local users.

Working to expand communications networks, facilities and capabilities for acquiring, using and sharing remotely sensed data among AmericaView members.

About AmericaView



<http://americaview.org>

History of AmericaView:

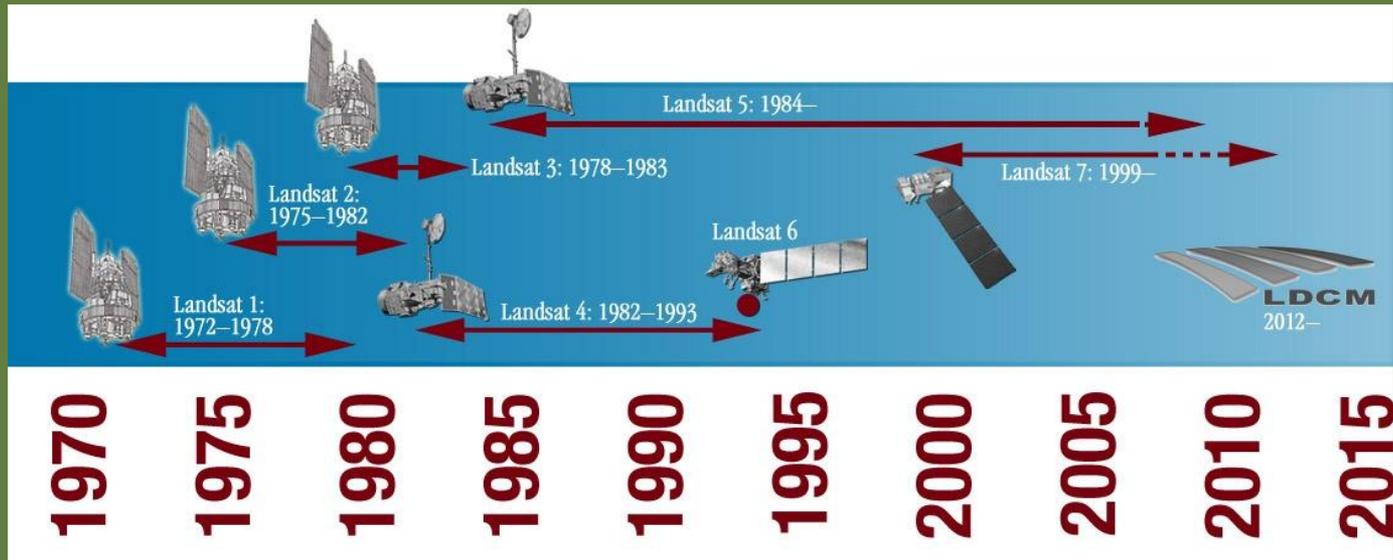
AmericaView is the result of a research and education pilot project initiated in Ohio by the USGS in 1998; named OhioView.



The purpose was to overcome some of the major **cost** and **data access** problems the research community faced using satellite remote sensing technology, focused particularly on Landsat satellite imagery.

Landsat Program

Joint effort of the USGS and NASA to gather earth information through a series of remote sensing satellites.



<http://landsat.gsfc.nasa.gov/>

Operationally the Landsat program has been managed by various federal agencies (NASA/NOAA) and the private sector (EOSAT).

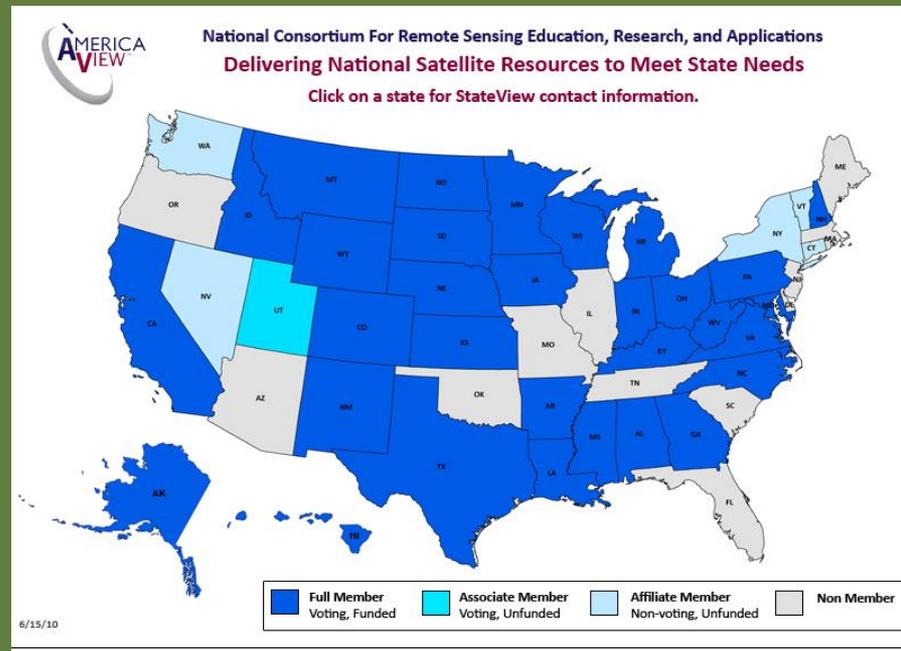
About AmericaView



<http://americaview.org>

History of AmericaView:

In 2000, Congress instructed the USGS to extend the OhioView pilot project nationwide.



Currently 37 member states

Remote Sensing is...

... the art and science involving the detection, identification, classification, delineation, and analysis of earth surface features and phenomena using imagery acquired from aircraft and satellite platforms equipped with photographic and non-photographic sensors using visual and computer-assisted interpretation techniques.

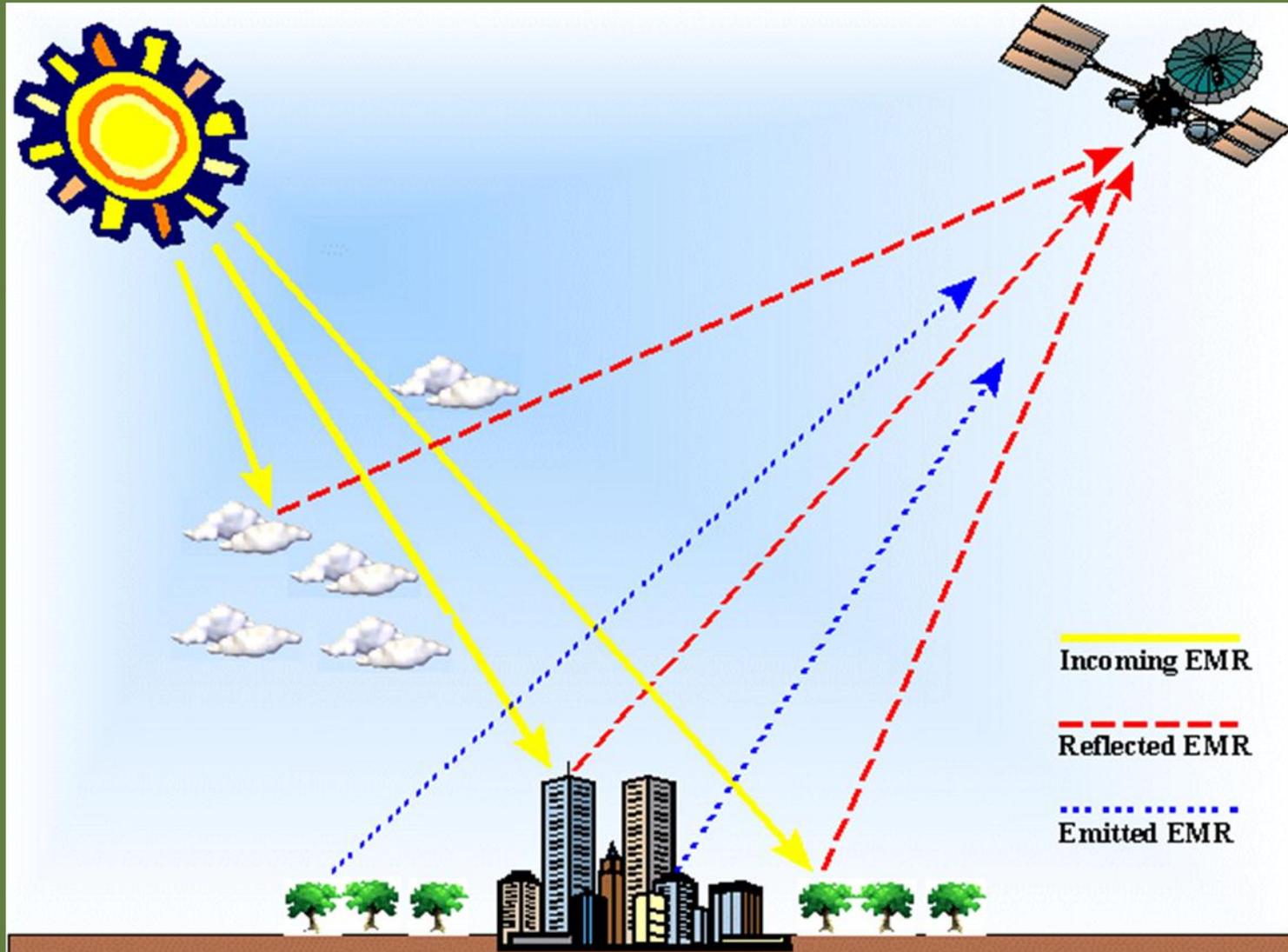


Or More Simply Stated...



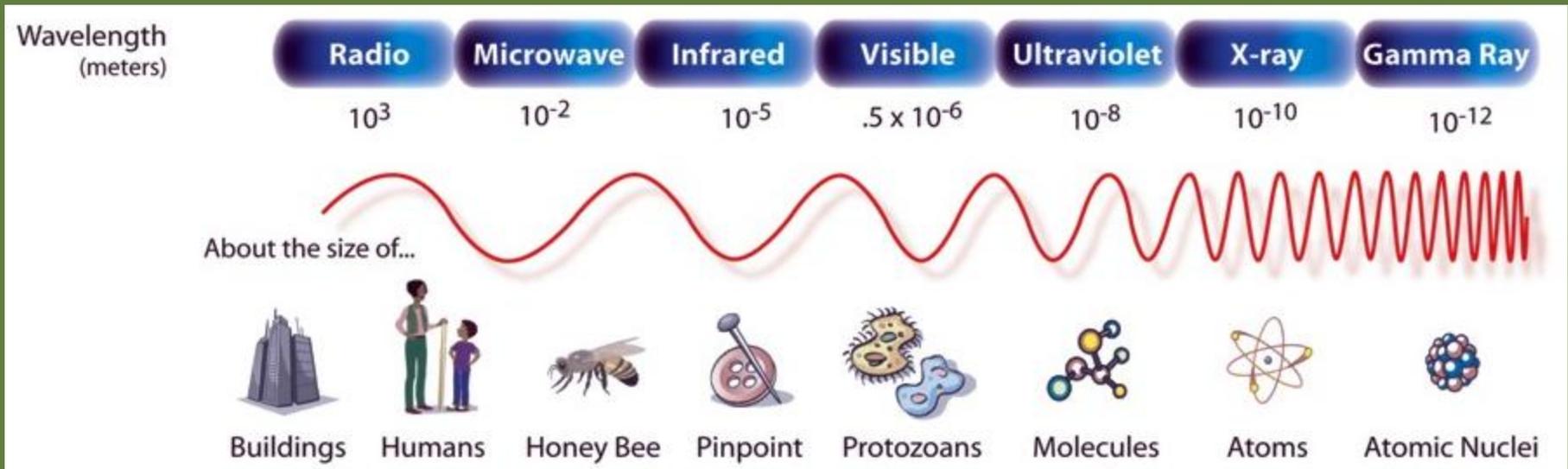
... the process of gathering information from a distance.

Remote Sensing the Basics



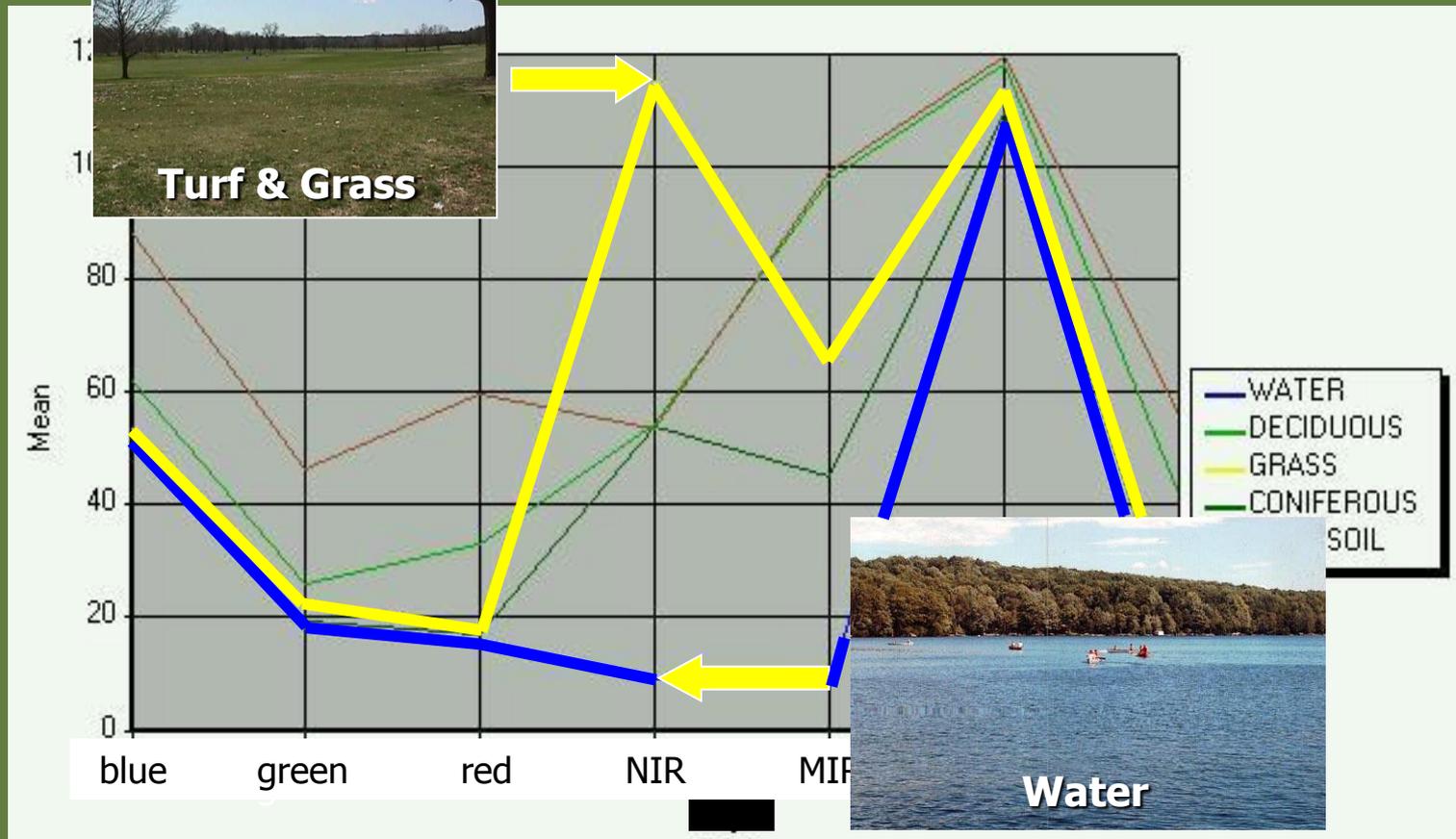
Remote Sensing the Basics

Electromagnetic Spectrum



Remote Sensing the Basics

Electromagnetic Spectrum



Examples of Land Cover Features



Residential



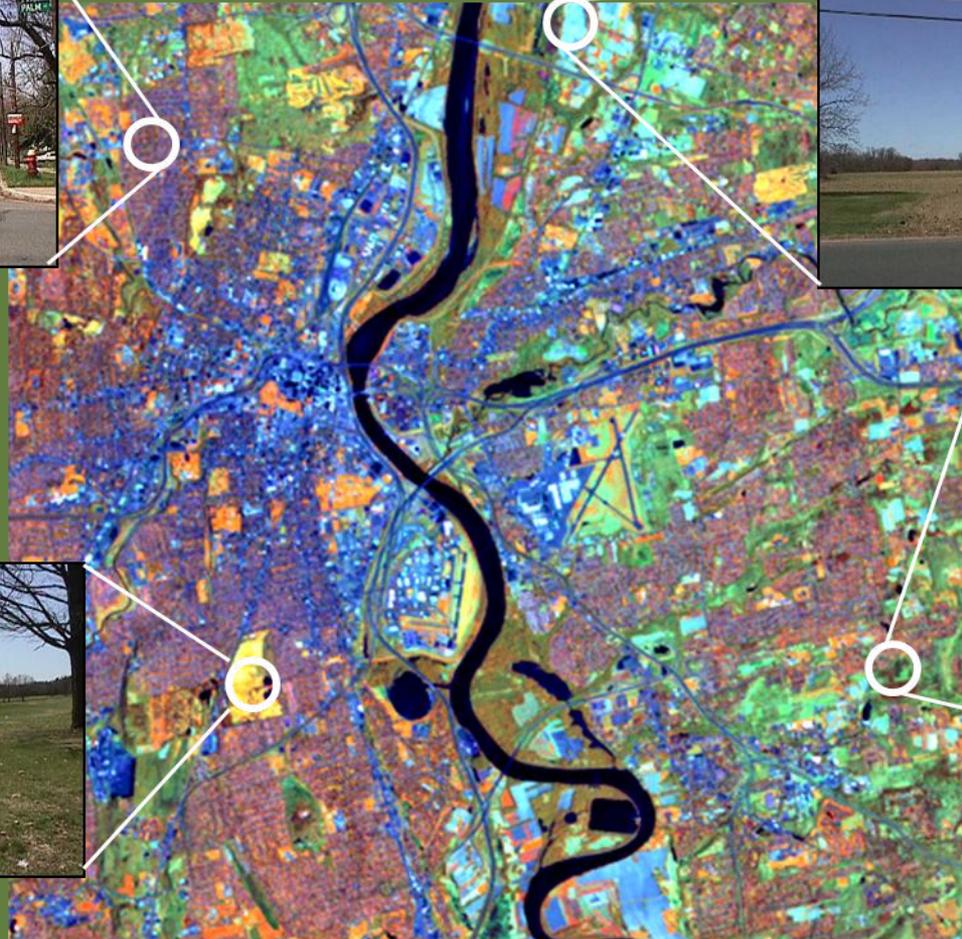
Agriculture



Turf & Grass

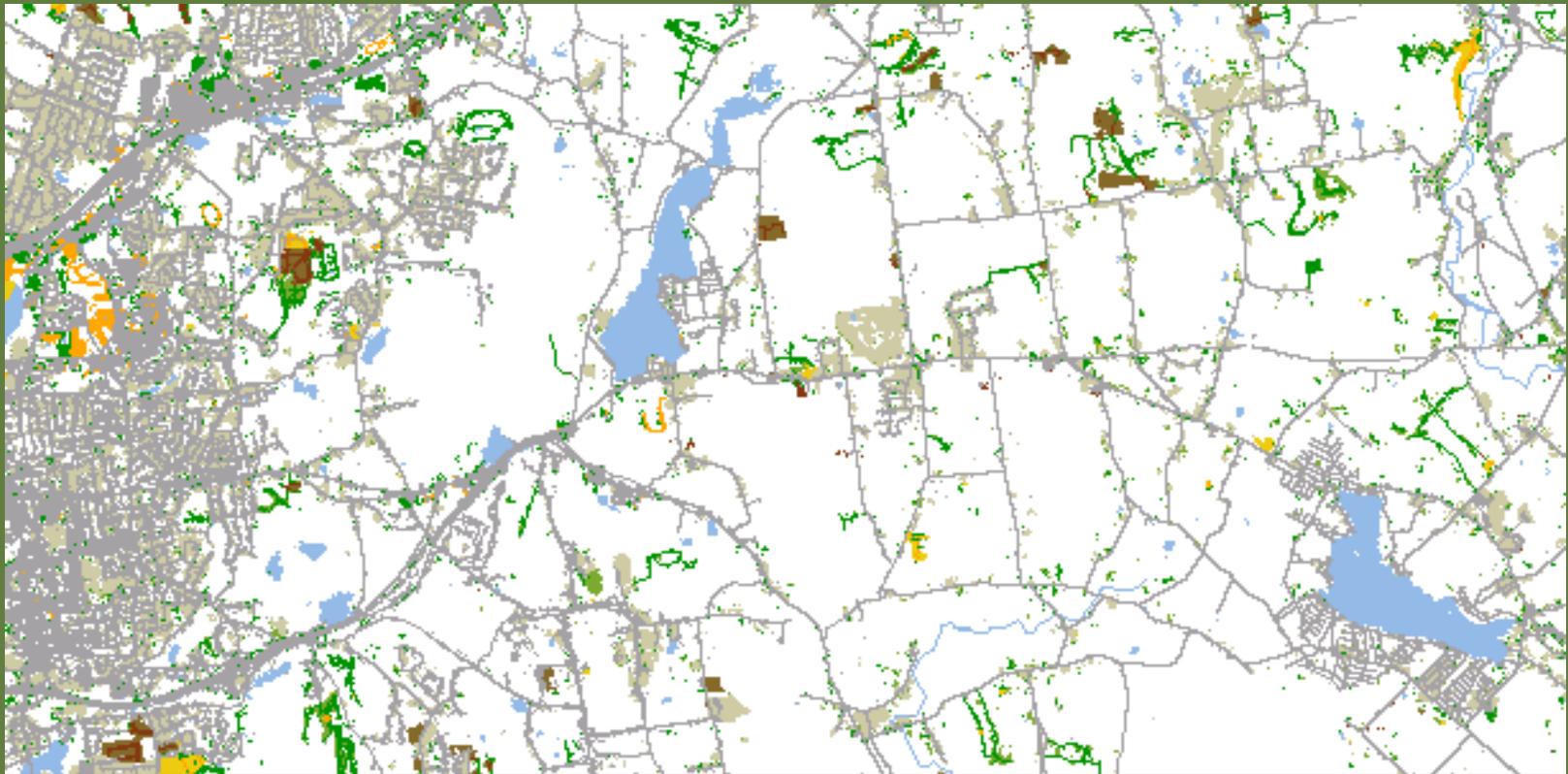


Non-forested Wetland



Remote Sensing Applications

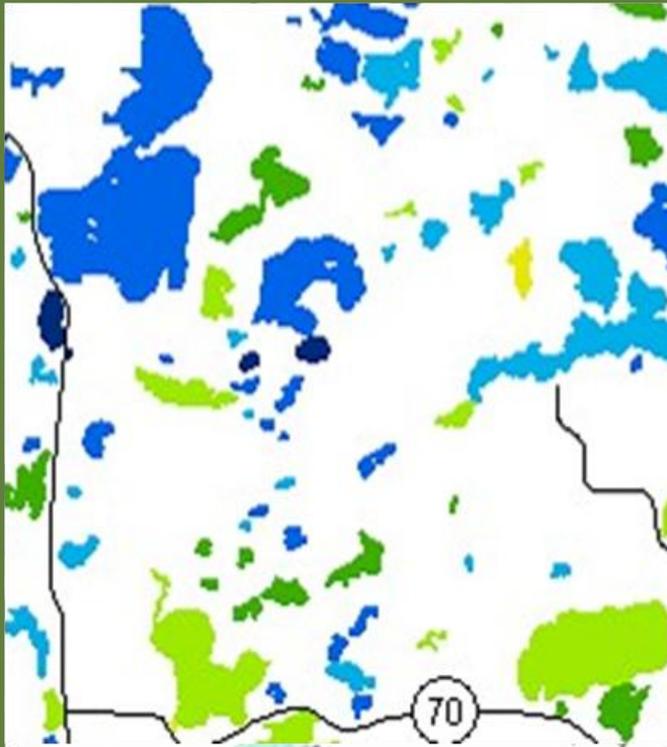
Land Cover and Land Cover Change



1985 – 2006 Change in Agricultural Development and Forest

Remote Sensing Applications

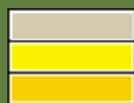
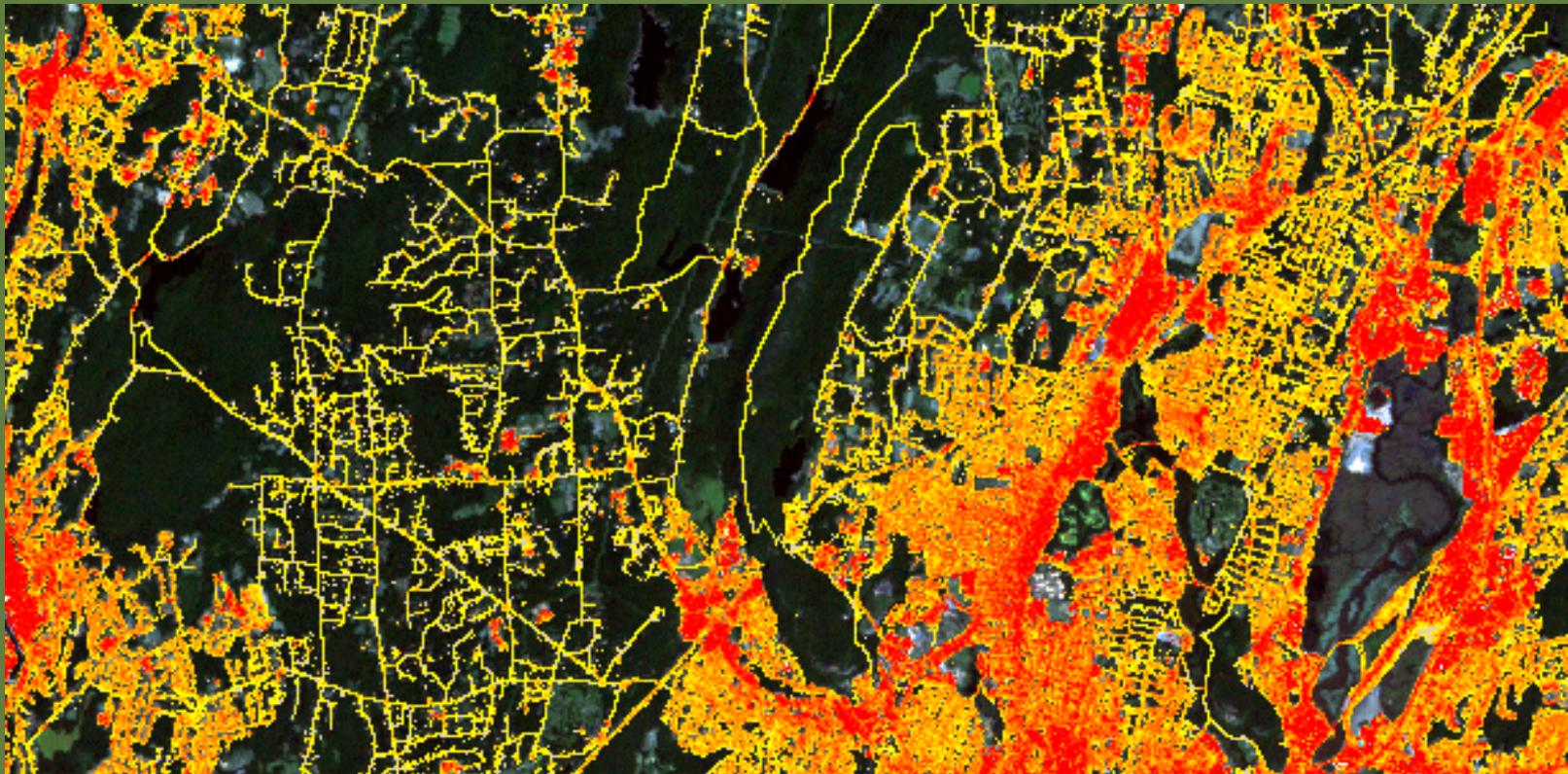
Estimating Water Clarity



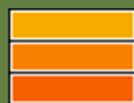
Water Clarity Legend	
SDT(m)	TSI(sdt)
> 4	< 40
2 - 4	40 - 50
1 - 2	50 - 60
0.5 - 1	60 - 70
< 0.5	> 70

Remote Sensing Applications

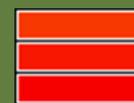
Estimating Impervious Surfaces



10% - 19%
20% - 29%
30% - 39%



40% - 49%
50% - 59%
60% - 69%

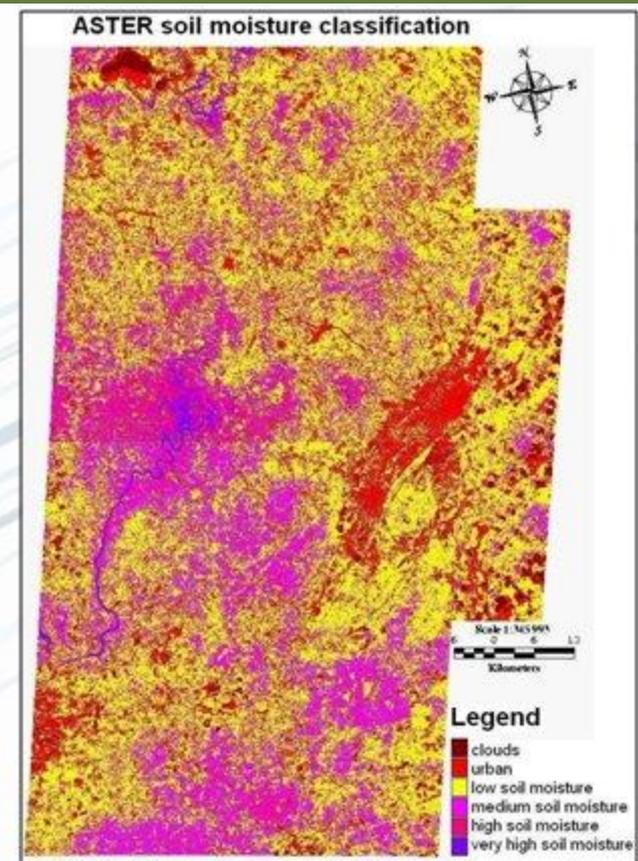
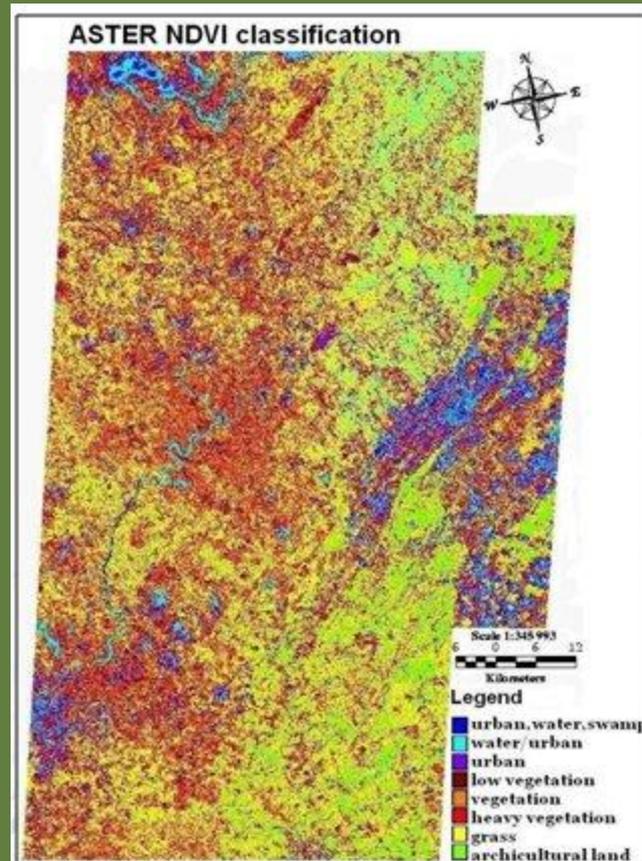


70% - 79%
80% - 89%
90% - 100%

Remote Sensing Applications

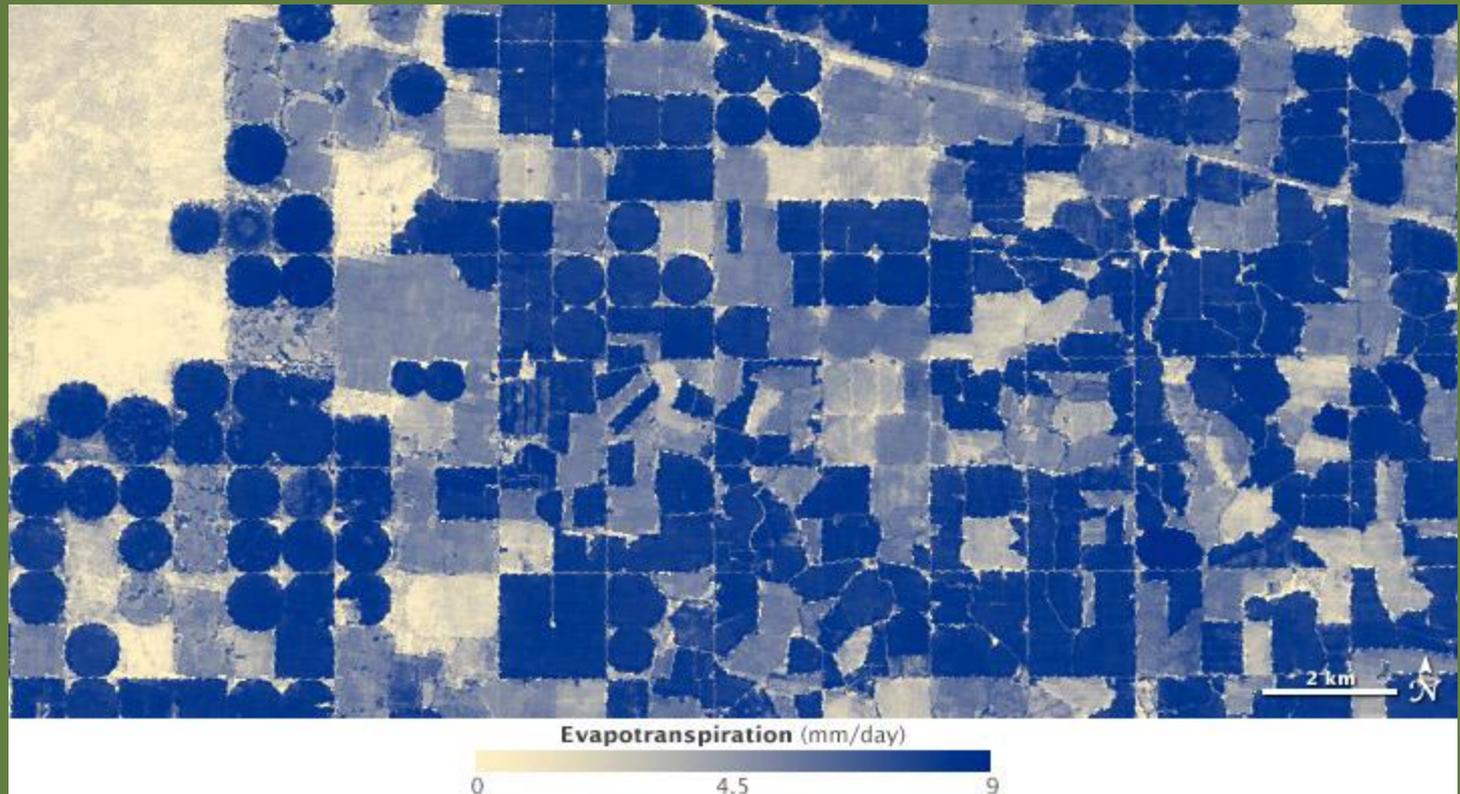
Identifying Tick Habitat to Reduce Spread of Lyme Disease

Ticks prefer moist heavily vegetated areas.



Remote Sensing Applications

Measuring Evapotranspiration to Estimate Agricultural Water Usage



Determining
transfer of
energy

note Seeing Satellite



QuickBird 1,2, USA



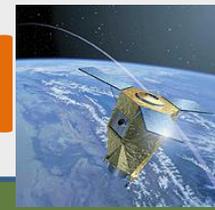
WorldView 1,2, USA



SPOT 1-7, France



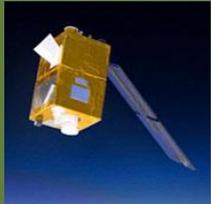
Terra, USA/Japan



Pleiades 1,2 France



EROS-A, B, C, Israel



ALSAT-2, Algeria



EO-1, USA



IRS-1A, B, C, D, India



Envisat, European SA



Almaz, Russia



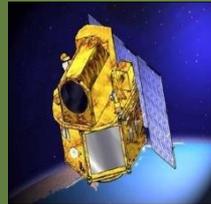
OrbView 1-3, USA



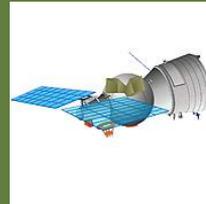
Formosa-1,2, Taiwan



Meteor, Russia



THEOS, Thailand



Kometa, Russia



Ikonos-1,2, USA



ADEOS-2, Japan



ALOS, Japan



Arkon-1,2, Russia



Resurs-DK1, Russia



CBERS-2, Brazil/China



Kanopus, Russia



Cartosat-2, India



IRS-P2, 3, 4, 5, 6 India



GeoEye-1,2, USA



Landsat 1-7, USA



Cosmo-Skymed, Italy



ERS-1,2, EU



RapidEye, Germany

What Other StateViews Are Doing



SATELLITES Conference
K-12 Educational Program
And teacher training



Educational programs through
short courses and web training



Provide state specific
data for users



Outreach materials for educators



kml files for NASA astronaut
photography in Google Earth



Provide support for
emergency management

What's Next?

Form a Connecticut consortium of users of remotely sensed imagery.

- Higher education institutions
 - Current partners:
 - Wesleyan University
 - Yale University
- Other interested agencies and organizations

Benefits?



- Imagery Discounts:
 - SPOT Satellite Image License Agreement

COVERAGE: U.S., Canada, Mexico, Caribbean



20-meter



2.5-meter

SPOT Scene	Commercial Price	AmericaView Price*
20m MS	\$1,900.00	\$285.00
10m PAN	\$1,900.00	\$285.00
10m MS	\$3,375.00	\$506.25
5m PAN	\$3,375.00	\$506.25
2.5m PAN	\$6,750.00	\$1,012.50
5m Color	\$6,750.00	\$1,012.50
2.5m Color	\$10,125.00	\$1,518.75

Mosaic	Commercial Price	AmericaView Price
USA Select 10m mosaic (per km ²)	\$0.25	\$0.05
National Prime 1m mosaic (km ²)	\$0.40	\$0.20

\$2,500 subscription fee

Benefits?



- Imagery Discounts:
 - eMap International License Agreement
 - High resolution satellite imagery from:



Benefits?

- Annual Funding Support:
 - Annual Program Maintenance - Each year, a program maintenance grant is awarded to each Full Member state consortia.
 - New Full Membership – given available funding, limited release of RFPs, panel reviewed and competitively awarded.

National Land Remote Sensing Outreach Authorization Act

Benefits?

- Possible discounts on image processing software.
- Networking, communication and the pooling of resources.

Determine Goals and Objectives.

- Create educational and outreach activities and materials?
- Advance remote sensing and other geospatial science technology?
 - Other higher education institutions
 - K-12
- Identify research needs for Connecticut?

Stay Tuned

<http://ctview.org>



[AmericaView](#) | [UConn CLEAR](#) | [UConn MAGIC](#) | [University of Connecticut](#)

Promoting the access & use of remote sensing imagery in Connecticut.

James Hurd

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