

Liatris
Rare find in CT

From the GeoDESK

Spring Edition 2009

Volume 2, Issue 1

UConn's Map Library, Unlike Any Other

By Benjamin Spaulding, UConn

The University of Connecticut Library's Map and Geographic Information Center (MAGIC) has updated its online map pages and is currently beta testing the service. The new pages run off of a Web Map Service read into a Google Map page, creating an easy to use mash-up. Users will be able view the maps, including the 1934 Connecticut aerial photography and a variety of historical maps from the MAGIC site in their internet browser without the need of downloading any third party plugins. These pages work best in Firefox or Internet Explorer 7. Get ready to update your bookmarks! The new pages include:

-Connecticut Topographic Maps and Connecticut Historical Aerial Photography (with links to online Connecticut aerial photography indexes) http://magic.lib.uconn.edu/mash_up/topo_index.html

-1934 Connecticut Aerial Photography
http://magic.lib.uconn.edu/mash_up/1934.html and

-Connecticut Historical Maps
http://magic.lib.uconn.edu/mash_up/historical_index.html

All of the datasets found here can read into many GIS programs. To do this visit http://magic.lib.uconn.edu/help/help_WMS.htm And as always, if you have any questions or run into any problems please feel free to email me or MAGIC at magic@uconn.edu.

Articles from the Geo Desk

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Upcoming Conferences

The **Spring 2009 NEARC** is coming soon.
Tuesday, May 12, 2009 at The Smith College
Campus Center in Northampton, MA.
www.northeastarc.org

URISA GIS in Public Health Conference
June 5-8, 2009
Providence, Rhode Island
<http://www.urisa.org/conferences/health>

URISA/NENA Addressing Conference
August 4-6, 2009
Providence, Rhode Island
<http://www.urisa.org/conferences/Addressing/Info>

Newsletter Contacts

Submit letters and articles to:
beth.kelly2@us.army.mil or
peter.sandgren@ct.gov

On the Right: A 1934 Aerial of Savin Rock Beach in West Haven CT. Many of us remember the Old Savin Rock Amusement Park once known as "White City" with many rides, the fun house with the famous Laughing Lady and of course the still missed Carousel. Currently, there's a Savin Rock Museum on site.

Beth Stewart-Kelly





Cedar Lake, CT

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GEOSPATIAL LAB

By Peter Sandgren, DEMHS



CT GIS User to User Network Update



The democratic process has worked once again. We again want to thank everyone who tossed their hat in the ring for consideration.

The new Steering Committee members are:

REGIONAL PLANNING

Glenda Prentiss – Council of Governments of the Central Naugatuck Valley

ACADEMIA

John Harmon – Central Connecticut State University

UTILITY

Jim Gagnon – South Central Connecticut Regional Water Authority

AT-LARGE

Michael Howser – University of Connecticut

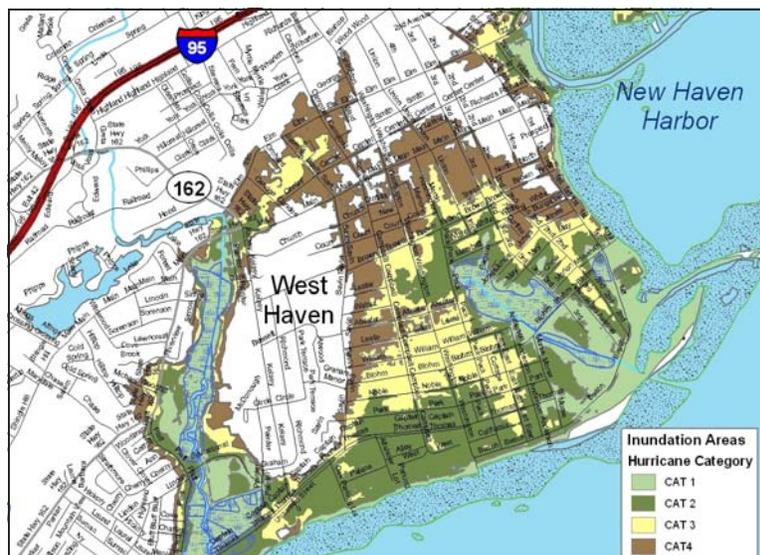
Thank you all again for your participation, including all of the voters. **Next meeting is scheduled for Friday June 19th, 125 Maxim Road Hartford.**

www.CTGIS.uconn.edu

Network Steering Committee

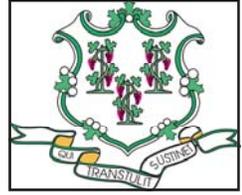
Nestled in a corner of Hartford's National Guard Armory is a small area dedicated exclusively to GIS. The Department of Emergency Management and Homeland Security's GeoSpatial Lab is part of the state Emergency Operations Center, or EOC. The EOC serves as a communication and coordination hub for statewide emergency events, such as major snow storms and hurricanes. Equipped with computer work stations for representatives of state agencies as well as private organizations like the Red Cross, the EOC also features a conference room where the Governor coordinates with agency commissioners and representatives before speaking to the press from the adjacent Media Center. In order to fulfill mapping requests from the EOC, the GeoLab has three permanent work stations and one laptop station equipped to run GIS software and the necessary related programs. Two large format plotters are networked to print maps in widths from 26 inches to 42 inches. Maps are also produced in digital form for quick distribution.

In an emergency situation, a call-down list brings in GIS specialists, primarily from state agencies, to work with emergency management staff on a round-the-clock basis until the emergency has ended. The GeoLab was fully activated for "Operation Logjam," a FEMA hurricane exercise, on November 13. During this exercise the lab was staffed by a GIS analyst from a state agency and one from a regional planning organization, in addition to the DEMHS GIS coordinator. Lessons learned during this exercise will benefit the state's GIS response during the next hurricane season, which begins June 1 and runs through November 30.



The map shows the highly populated West Haven shoreline and the inundation areas by Hurricane Category.

Education and Outreach Working Group members are:
Co-Chair: Peter Sandgren DEMHS Co-Chair: Sandy Prisloe UCONN, Beth Stewart-Kelly Military Dept., Scott Roberts Town of South Windsor, Dennis Barry DSS, Peter Petrella DSS, Arroll Borden United Way, Bernard Asimoye DOIT, Thad Dymkowski, Newington. This Quarterly Newsletter is created by the Education and Outreach Working Group, a sub-committee of the Connecticut GeoSpatial Information Systems Council. Our purpose is to communicate Geospatial News from current GIS activity within the State of Connecticut. Newsletter organized by Beth Stewart-Kelly and Pete Sandgren.



Geographic Place Names and the GNIS by Jackie Mickiewicz, DEP

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Each state has a Geographic Names Authority that performs research about the proposal, notifies any interested parties, accepts public comment and finally, make a recommendation to USGS Board on Geographic

The United States Geological Survey (USGS) has historically been responsible for mapping geographic features throughout the United States. Perhaps their most well known product is the Topographic Quadrangle Map collection, also known as the DRG's, or Digital Raster Graphic maps. As most of us know, there are many natural and cultural features named on these maps. But where do these names originate and where and how are they maintained? In the course of mapping these features, the USGS developed a database known as the Geographic Names Information System (GNIS). The GNIS contains information about physical and cultural geographic features of all types in the

United States, associated areas, and Antarctica, current and historical, but not including roads and highways. The database holds the federally recognized name of each feature and defines the feature location by state, county, USGS topographic map, and geographic coordinates. The GNIS collects data from a broad program of partnerships with Federal, State, and local government agencies and other authorized contributors, and provides data to all levels of government and to the public.

The authority for maintaining this database at the federal level is the USGS Board on Geographic Names (BGN) which promulgates official geographic feature names with locative attributes as well as principles, policies, and procedures governing the use of domestic names, foreign names, Antarctic names, and undersea feature names.

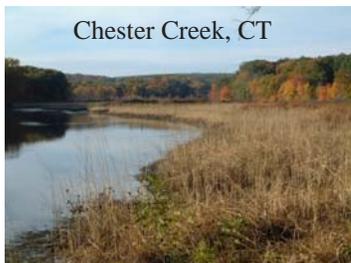
At times, the BGN receives proposals from state or local entities, the public, or other organizations with regard to adding new feature names or changing the names of existing features.

Each state has a Geographic Names Authority that performs research about the proposal, notifies any interested parties, accepts public comment, and finally, makes a recommendation to the BGN. The Connecticut Geographic Names Authority was recently re-convened (December, 2008) and new members were appointed. The Authority

now has eleven members, representing a cross-section of public and private organizations that are in some way involved with geographic naming from a cultural, physical or historic perspective. The Authority convenes only when a proposal has been submitted to either the State or the USGS BGN for a name change or the addition of a new name. The proposal is officially logged by the USGS and both it and the State Authority begin the process of research. After analyzing and compiling the results of this process, the State Geographic Names Authority makes a recommendation to the USGS Board on Geographic Names as to the approval or disapproval of the proposal. A recent example of a proposal involved the naming of the bay located on the easterly side of Mason Island in Stonington, Connecticut. Many suggestions were forwarded to the USGS, some historically based and some not. Some examples of suggestions are shown on the map. This proposal was submitted just before the new Connecticut State Names Authority was formed. As such, there was no official state recommendation to the BGN. The USGS subsequently made the decision to not name the bay due to some local controversy as well as the abundance of names proposed.



The next time you see a feature on a topographic map and wonder about the odd name, or the lack of a name altogether, you might think to contact the [USGS BGN](#) or the [State Geographic Names Authority](#) for more information.



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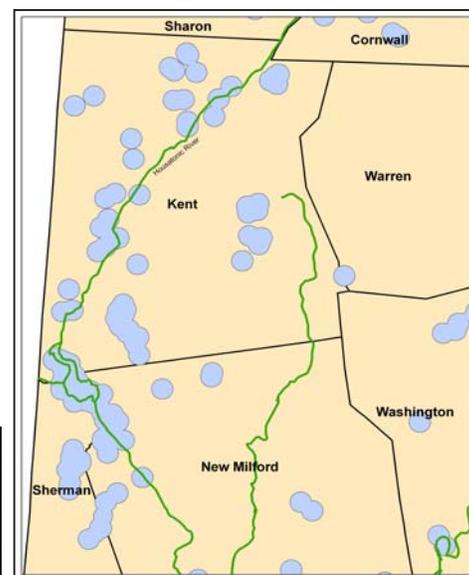
From the GeoDESK

State and Federal Listed Species and Natural Community Mapping By Karen Zyko, DEP

Information on state and federal listed species and significant natural communities is compiled by the Department of Environmental Protection's Natural Diversity Data Base (NDDDB). Established in 1983, the NDDDB manages more than 100 years worth of data from a variety of sources including museum records and surveys by state biologists, students, volunteers, conservation groups, and landowners. The data are managed using a national standard data model and custom software application developed for DEP that mimics a multi-user Geodatabase format using ESRI's ArcView software and an Oracle database. By using a standard data model and methodology, Connecticut's data can be rolled in to a national dataset of biodiversity information. One of the challenges of tracking endangered species data is how to make information available to the public for conservation, while still protecting sensitive sites. Many of the species that we track are highly sensitive to disturbance and may be the target of collectors. The compromise that we chose uses generalized species-blind locations to create a set of maps affectionately called the "blob maps." The maps are meant to show areas of concern for state listed species, without giving away exact locations, and to direct landowners to the DEP for guidance on how best to address potential conflicts with certain land uses or activities.

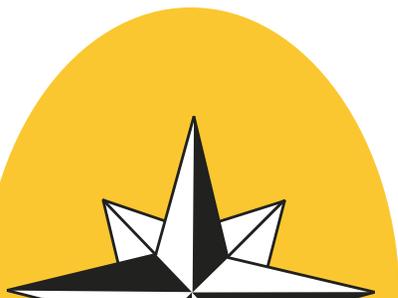
The maps are created using polygon centroids that are randomized by shifting both the X and Y coordinates. The shifted centroids are buffered to produce the general locations. The two datasets can be examined using topology rules to ensure that all species polygons are completely covered by the new generalized locations. I have recently developed an ArcGIS Model to help automate the process of creating the blobs, which are updated every six months.

ArcMapBook is used to create the town map series that is published in PDF format on the DEP Web Page www.ct.gov/dep/endangeredspecies. Using GIS to catalog Connecticut's rare species has been a huge step forward. It has allowed us to characterize and model species distribution in a way that was not possible when we managed our data on 116 separate paper topographic quadrangle maps.



Blob Map with "areas of concern" for Kent.

Snowy Egret and the Timber Rattler are just a few of the Endangered Species found in the Kent area.



Geography Quotes

Do you have any to share?



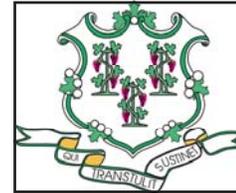
"For the execution of the voyage to the Indies, I did not make use of intelligence, mathematics or maps"

Quote by Christopher Columbus

"Just as none of us is outside or beyond geography, none of us is completely free from the struggle over geography. That struggle is complex and interesting because it is not only about soldiers and cannons but also about ideas, about forms, about images and imaginings."

Edward Said 1994





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OBLIQUE IMAGERY UPDATE

By Bernard Asimonye, DOIT

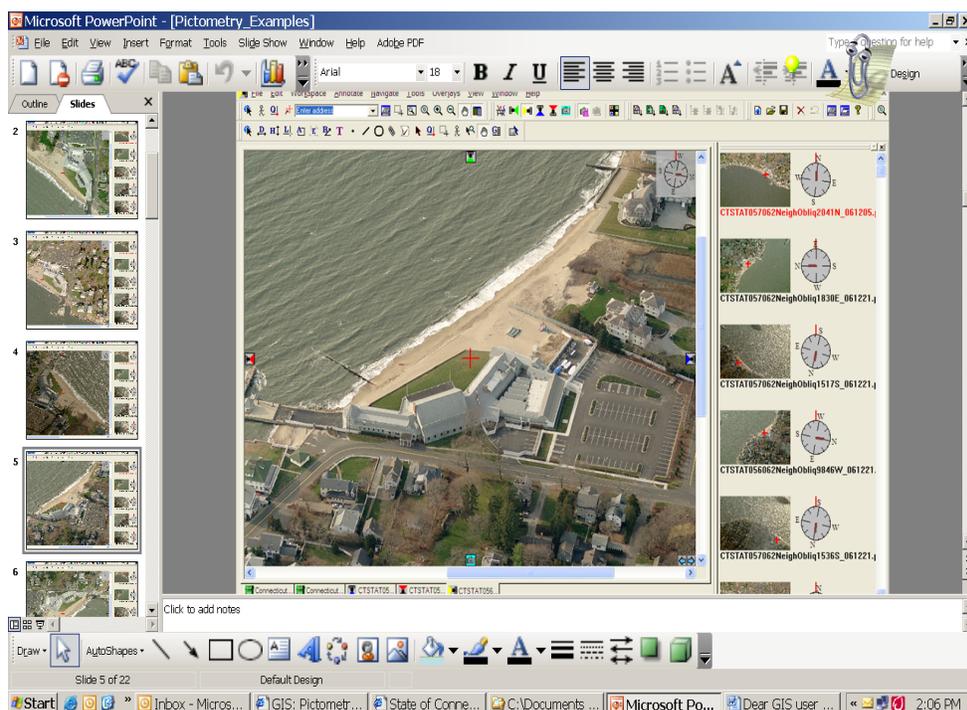
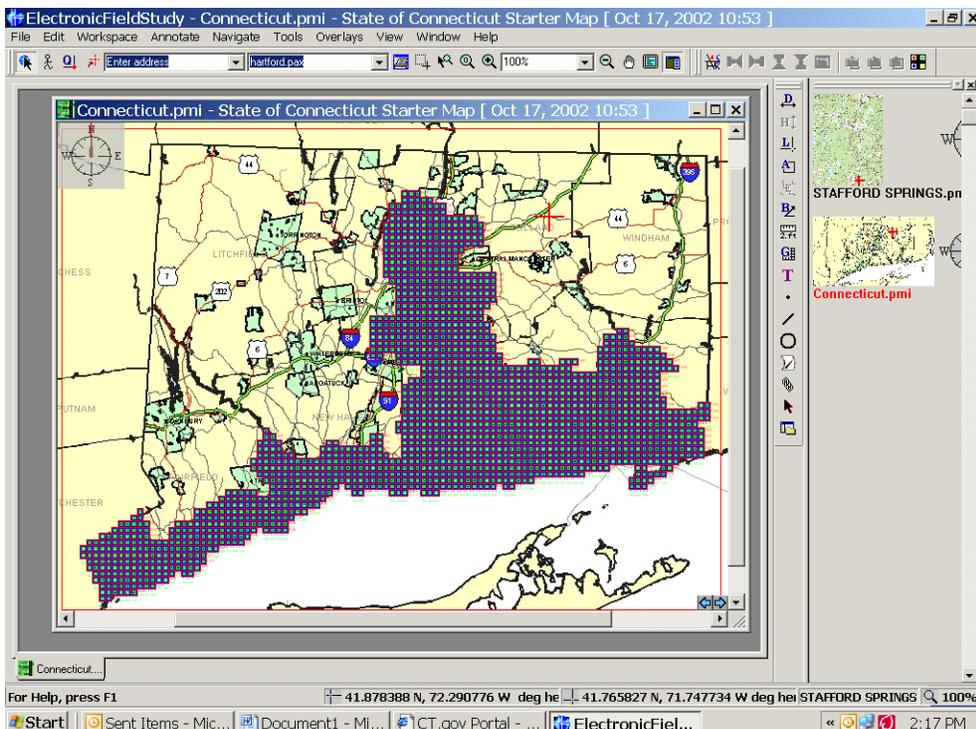
In 2006-2007 the state contracted with Pictometry, a Rochester, NY based company, to conduct a test flight of oblique image data for select areas of the state along the coastline and Connecticut River. Oblique imagery differs from traditional ortho-photo flown data because the images are captured in four directions, allowing an angled view of the landscape and especially buildings.

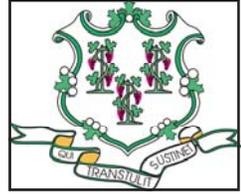
The initial purpose of acquiring this data was for use in emergency management and homeland security applications. It was also made available at no charge to political subdivisions of the state, mainly municipalities, state agencies and regional planning organizations covered by the flight area.

Recently, Pictometry provided a two day training coordinated by DOIT. The training consisted of basic end user classes and an advanced user class on March, 10th and 11th at the State Emergency Operations Center in Hartford. More training will be coming soon, check the CT GIS Council website for dates.

www.ct.gov/gis/cwp

Top screenshot is the flight cover area for this imagery. Bottom screenshot is an example of the Oblique imagery including 5 thumbnails of the location.





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"When Satellites Collide " Feb. 12, 2009 GPS World



February 10, the Iridium 33 and Cosmos 2251 communications satellites collided over northern Siberia, at approximately 1656 GMT. The impact between the Iridium Satellite LLC-owned satellite and the 16-year-old defunct Russian military satellite occurred at a closing speed of well over 15,000 mph, 490 miles above the face of the Earth. The collision occurred at roughly 780 kilometers (485 miles), a low-earth orbit (LEO) altitude used by satellites that monitor weather and carry telephone communications. It is considered the most crowded area of space. GPS and GNSS satellites are in medium-earth orbits, below the 22,300 miles of geostationary satellites and above LEO satellites. Bethesda, Maryland-based Iridium Satellite LLC has stated that the collision is not the result of a failure on the part of the 560-kg Iridium satellite or its technology, saying that it appears the satellite collided with a non-operational 900-kg Russian satellite.

GPS and GNSS satellites are in medium-earth orbits, below the 22,300 miles of geostationary satellites and above LEO satellites.

Iridium Satellite LLC operates a constellation of 66 LEO satellites that provide voice and data services for areas not served by ground-based communication networks. The Iridium 33 was launched in 1997. However, an official of the Russian Defense Ministry has implied that

the Iridium satellite should have known it would crash into "junk" at that altitude. As for the United States' position, "We did not predict this collision," said Pentagon spokesman Bryan Whitman on Thursday.

The U.S. Joint Space Operations Center was tracking 500 to 600 new bits of debris, some as small as 10 centimeters (3.9 inches) across, in addition to the 18,000 or so other man-made objects it has catalogued in space. It tracks so many that it has to decide which to follow most closely, such as the International Space Station (ISS) or manned space flights. The ISS flies at an even lower altitude than where the collision occurred. "There are limits on your ability to track and compute every piece of orbiting man made object," Whitman said. "It's an unfortunate incident that highlights the importance of cooperation and collaboration in space." Satellites that are "going dead" can be put in a place in space where there is no activity, or maneuvered into a safe descent back to Earth, he said. But Whitman refrained from accusing the Russians of negligence, saying that some of the procedures for handling dying satellites were introduced long after the satellite's launch in 1993. He said he had been told that Tuesday's collision was not the first of its kind, adding that "there have been three to four other events." NASA spokesman John Yembrick said there have been "three other cases in which space objects orbiting at hypervelocity have collided accidentally." But he added that "these were all minor events involving spent rockets or small satellites with only a few pieces of resulting debris."

To support the space community in better understanding this unprecedented satellite-to-satellite collision, [Analytical Graphics, Inc. and CSSI have used their software to reconstruct the event](#). The software is also being used to help assess the possibility of additional collisions by applying breakup models for debris prediction. Available tools include videos, interactive 3D Viewer files, and high-resolution images.