



Geographic Information Systems Technology News

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GIS Coordination Program

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Welcome to the Third Issue of
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Digital Orthoimagery is now available through the GIS Clearinghouse. Images can be viewed or downloaded using the Clearinghouse's internet mapping. The digital ortho data provided through the application were produced for the NYS Y2K Emergency Task Force by enhancing and reformatting data originally produced under the federal/state Digital Orthoimagery Quarter Quad Program, led by NYS Department of Environmental Conservation in New York State.

The main purpose of the mapping application is to provide open access to the state's digital ortho dataset. Anticipated uses of this site are GIS professionals seeking rapid data access, educators, students and the general public needing bitmap graphics. For further information, contact Tom Hart at thart@dos.state.ny.us. You may also check out the new Interactive Mapping Gateway on the Web at <http://www.nysl.nysed.gov/gis/gateway>.



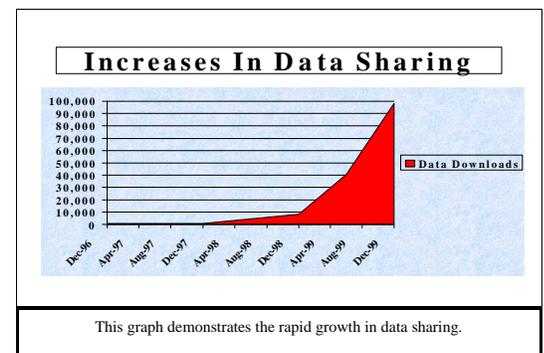
Internet Mapping
County Data by Area—Square Miles

Data Sharing Continues to Soar!

Prior to 1998, only 800 – 900 datasets were shared among GIS users in New York State. By the end of 1998, that figure had risen to more than 8,500 datasets with an estimated value in excess of \$2,000,000. This represented more than a ten-fold increase in GIS data sharing over previous years.

The figures for 1999 have been calculated by the Standards and Data Coordination Workgroup and they continue to be very impressive. There were

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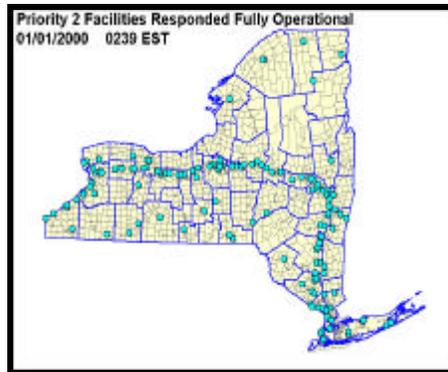


Year 2000 Call-Out a Success

For the first time, New York State established a Year 2000 Call Center to provide information to citizens on the State's readiness and response to the Year 2000 (Y2K) date change. In addition, the Call Center also provided Statewide status "snapshots" immediately following the date change and throughout the transition weekend. These snapshots provided the State Y2K Emergency Preparedness Task Force at the Emergency Operations Center (EOC) with immediate critical data on various life and safety issues throughout the State. The snapshots were developed through the use of an automated telephone call-out function combined with GIS mapping.

To prepare for the transition weekend automated call-out, a database of telephone numbers and related information had to be developed. State agencies were asked to supply telephone numbers

for all their critical facilities. More than 40 State agencies provided over 2500 telephone numbers for critical facilities such as hospitals, state priority facilities,



adult care and nursing home facilities, facilities for the disabled and mentally ill, colleges, correctional facilities, State Police barracks, etc. The telephone numbers, along with the related information on these facilities, were inputted into an Access database. Geo-referencing data was then applied to each of the facilities. The captured information produced data which then went to agencies for verifications.

The actual automated call-out began approximately 15 minutes after midnight on January 1st, 2000. The answers provided by the critical facilities were fed back into the call-out database and then transferred to the EOC. The EOC GIS Unit evaluated the responses provided by the facilities and using the geo-referenced facility information, developed Statewide maps reflecting the facility responses. These maps were available to EOC and Agency staff within 45 minutes of receiving the call-out data from the Call Center.

Utilizing this enhanced GIS capability, New York State was able to quickly and accurately display critical health and safety information related to the Y2K date transition. In the future, this system can be used to collect and display information such as power outages, road closures and emergency operating facilities to hasten the State's emergency responses efforts.

Data Sharing Continues to Soar!

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over 97,000 datasets downloaded with an estimated value of \$7,800,000. Since 1997, we have seen more than a hundred fold increase in data sharing in New York State. Currently, more than 900 datasets are available to Data Sharing Cooperative members. Of those, over 500 are available online through the Clearinghouses.

The emphasis for the year 2000 is to dramatically increase the number of datasets available online. Erie County has already made their data available online at the State Clearinghouse. Tompkins, Columbia, and Orange Counties have committed to making their data available online. Those wishing to place their datasets online

INTERESTED IN SUBSCRIBING TO GIST?

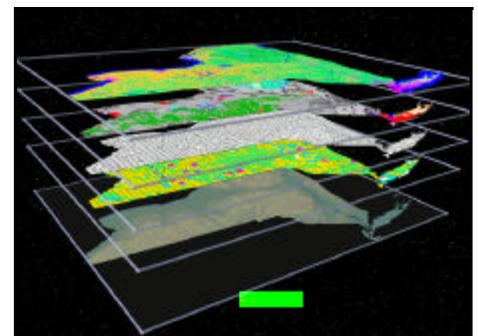
Contact Ms. Mary Ann Normandin at (518) 474-0865 or subscribe on-line at <http://www.nysl.nysed.gov/gis/forms/news.htm>.

at one of the Clearinghouses or via their own website should contact Sharon Oskam at the State GIS Clearinghouse at (518)474-0865 or sharon.oskam@oft.state.ny.us.

How do I Become a Coop Member?

To learn more about benefits of participating in the NYS GIS Data Sharing Cooperative, visit <http://www.nysl.nysed.gov/gis/datacoop.htm>

You may also contact Bruce Oswald from the NYS Office for Technology at 518-473-5622 or bruce.oswald@oft.state.ny.us.



Geographic Information Systems

Graphic created by the Visualization Program, Center for Theory and Simulation in Science and Engineering at Cornell University

For More Information on GIS Workgroup Meeting Schedules for 2000

Visit <http://www.nysl.nysed.gov/gis/reports/planning12-99.htm>

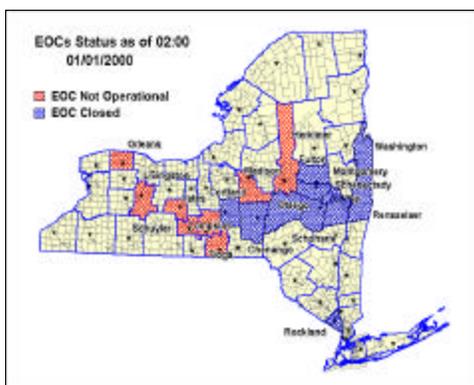
GIS Is Essential

For over 3 ½ years, New York had been working to identify high risk areas, resolve problems and provide contingency plans for Year 2000 related issues. Based on previous emergency management experiences in which GIS was utilized, GIS was seen as essential to locating facilities affected by power outages, identifying and tracking resources sent to resolve issues, and communicating the magnitude and interrelationship of problems that could potentially be experienced.

Data Developed to Meet Y2K

An analysis of the data needed to properly respond to Y2K related problems was performed and, as a result, 15 State agencies were asked to either create or improve over 30 databases. Information was gathered on such areas as high risk occupancy facilities, State owned emergency generators, power utility companies, critical vendors, critical care facilities, hazardous waste facilities, State facilities, potential shelter sites (public schools, colleges, & universities), etc. In addition, digital orthophotos from the Digital Orthophoto Quarter Quad (DOQQ) Program were reprocessed to address file size and format issues, and to address variation and quality of images. For the first time, live data feeds were also developed with power utility companies, high risk occupancy facilities (medical facilities, correctional facilities, mental health facilities, etc.), and road condition

data. Finally, taking advantage of a new electronic messaging and mission tracking system developed by the State Emergency Management Office, all calls coming in to the State Emergency Operations Center were geo-referenced automatically by operators through a series of drop down menus.



A multi-agency GIS Unit was established to handle each of the areas of live data feeds as well as special requests sent in from the various functional units in the Task Force. In addition, a GIS station was set on the main Operations floor at the State Operations Center to respond to immediate questions by agency representatives. Individuals were also responsible for visiting each of the twenty plus functional groups to insure that they had adequate data or analysis to perform their duties.

GIS was made central to the workflow with all messages routed through the GIS Unit. This allowed the Unit to not only respond to special requests, but also suggest potential aids that could be provided to assist functional groups with their assignments.

Data on the status of roads, provided by the Department of Transportation, was also delivered to the Operations Center. All GIS presentations were provided to each member of the Task Force over the local network. In addition, they were allowed to view and query data available on-line.

These new capabilities were again highlighted on January 4, 2000 as an ice storm approached several counties along the Canadian border. For the first time, GIS was used as part of a videoconference between staff at the State Emergency Operations Center and the Director of State Operations at the State Capitol in Albany. All of this occurred as GIS queries were made on-line by participants both at the Capitol and the State Emergency Operations Center.

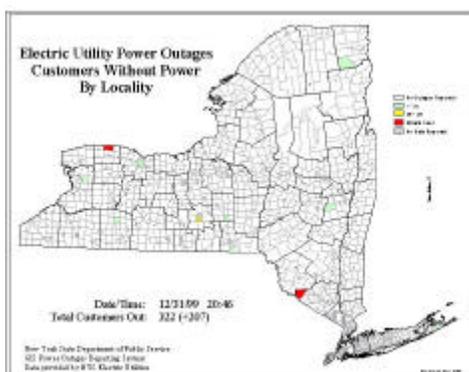
Policy Implications

The key policy implications resulting from the use of GIS for the Y2K Task Force include the following:

- The multi-agency approach team used by the GIS Unit will be closely considered for use in future emergency management operations;
- Requirements will be established for State agencies to fully maintain GIS data used for emergency management; and
- There will be a requirement to make GIS more easily available and framework data layers better integrated.

NYS Department of Public Service Y2K Effort

The NYS Department of Public Service (DPS) recognizes the need to disseminate information on power disruption and restoration from electric utility companies affected during emergency outages. In January 1998, Upstate New York was brought to a virtual standstill due to a major ice storm. Data was transmitted to the State Emergency Management Office



(SEMO) via fax, where it was manually inputted and then used with GIS to create maps showing power outages and restoration. This process originally took up to 3 days before a map could be generated. As the process matured, barriers to managing data were reduced which allowed the maps to be developed in approximately 6 hours.

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15th Annual NYS GIS Conference a Rousing Success

Thanks to everyone that helped make the 15th Annual NYS GIS Conference a rousing success. Registrations exceeded organizer expectations by increasing to over 500 participants. Organizers are hopeful that the number of people able to attend the conference will continue to rise.

The conference again brings together

GIS users from around the State to attend workshops, see the latest GIS technology, learn about successful GIS applications and network with GIS experts.

Potential topics for the conference include Remote Sensing, Census Data, and GIS on the Internet. The keynote speaker this year will be Nancy Tosta, former Staff Director to the Federal Geographic Data Committee at the Department of the Interior.

The addition of a banquet last year

was so well received that it will be offered again this year. The banquet speaker is Stewart McKenzie, who will present "Virtual Tomorrows: Future Planning." Mr. McKenzie will demonstrate how geospatial science will play a central role in environmental and community planning scenarios of the future.

A special thanks to the contributors to this issue: Sharon Oskam (NYS Library), Pam Lacy & Dawn Hoffman (OFT), Tom Hart (NYS DOS), and Linda Demers (NYS PSC).