

## December 2005

Welcome to the seventeenth edition of the **MassGIS GISette**, a bi-monthly newsletter e-mailed to over 1000 of our users and partner agencies to keep them informed of data updates, GIS events, and on-going technology developments. This newsletter will not replace more focused e-mails that many of you currently receive. A page on our website has been created for the [GISette](#). There you will find back issues of the GISette and an [online subscription form](#).

While our primary intent in publishing the GISette is to disseminate information related to MassGIS initiatives and data development in particular, we also see the GISette as a means of communicating public agency GIS news. So we encourage readers to send in updates or announcements concerning public agencies that they would like included in the GISette. We particularly want to encourage submission of announcements concerning data development projects. Announcements should be sent to Paul Nutting at [paul.nutting@state.ma.us](mailto:paul.nutting@state.ma.us).

### [GIS Day 2005](#)

Thanks to the participation of many people in the State GIS community, in Academia and from the Regional Planning Agencies, MassGIS hosted a very successful GIS Day exposition at the State House on November 16<sup>th</sup>. Over twenty-five exhibitors demonstrated their GIS projects on computers and over the Internet, and displayed their informative posters to hundreds of visitors, including many Legislators and their staff. Stephen Pritchard, the Secretary of Environmental Affairs, offered words of praise for the value of GIS to the mission of the Secretariat and was quick to notice the high level of cross-agency cooperation among the group. [Please visit our GIS Day recap webpage.](#)

### **2005 Orthoimagery Project Status**

As many of you know, with funding from multiple state agencies, last winter MassGIS contracted for development of a new statewide color orthoimage data layer. The new images will have the same half-meter pixel resolution as the 2001 orthoimages and will follow the same tiling scheme; some additional tiles have been added most notably to cover Nomans Land off the Southwest tip of Marthas Vineyard and the Boston Harbor Islands. Besides the red, green, and blue color bands, an infrared band was also acquired and will be available in images distributed by MassGIS. The imagery was acquired on various dates last April.

The project's original schedule had the last of the new images being delivered in about

February 2006. However, this schedule has been delayed as we have worked with the contractor to resolve some issues involving the accuracy of the digital elevation model that is one of the project deliverables. We believe these issues have been resolved and the revised schedule calls for all the imagery to be delivered by mid- to late April 2006. For project purposes, the state has been divided into about 10 delivery areas or blocks. Deliveries will be made sequentially starting with block 1 and finishing with block 10. We will be working as quickly as possible to check and approve these blocks of images as they are delivered. We will in turn work as quickly as possible to make the images available to all those who would like to receive them. Obviously, anyone interested in obtaining complete statewide coverage all at once will need to wait until May or perhaps later until we have accepted the complete data layer. Similarly, some regional organizations will want imagery from more than one block of images and this will slow our ability to deliver imagery for their entire region.

Other products from this project that we will distribute include new elevation data, reduced resolution versions of the images for those who's primary need is displaying imagery for large areas, and mapping of impervious surfaces statewide. Impervious surface mapping will be delivered as a 1m-resolution grid. Features being mapped will include roads, sidewalks, patios, parking areas, driveways, structure roofs, and any other material or structure comprised of material such as asphalt or concrete that is visible in the source imagery. Finally, while these products will not be the first distribution priority, we will also distribute the "raw" stereo imagery. These images can be used in a softcopy stereo imaging environment to map additional features based on interpreting their reflectance values.

### **Update on Parcel Grants Program for Southeast**

As many of you know, in early November, MassGIS announced another round of grant funding for parcel mapping. The funding was limited and because of that and because of the rapid pace of development in the Southeast, communities eligible for the funding were limited to Plymouth and Bristol Counties. The deadline for grant applications was November 29th; we received applications covering 23 of the possible 47 communities. MassGIS staff has evaluated the applications and made recommendations to Secretary Pritchard of the Executive Office of Environmental Affairs (MassGIS' parent agency) as to who should receive grants; he will probably announce the awards in early January. The recipients of the awards will be posted on the MassGIS web site once they have been announced.

### **SETB Agreement Finalized**

MassGIS has recently finalized its agreement with the Statewide Emergency Telecommunications Board (SETB /911) to work on finding streets and addresses missing from the Navteq data, which has been licensed for public agencies in Massachusetts by the Executive Office of Transportation. Under the agreement with SETB, MassGIS will hire two people. These individuals will identify streets and addresses that are missing or incorrectly represented in the Navteq street data, by attempting to geocode records from Verizon's 911 Master Street Address Guide and

Emergency Service Listing data files. Errors and questions will be researched with the help of local 911/Public Safety staff and then forwarded to Navteq. As needed, Navteq will capture new street locations using GPS - enabled vans, thus ensuring that the spatial accuracy of the existing data (MassGIS/MHD 1:5000 scale road network) is matched. Once these initial checks of the Navteq data are underway, MassGIS staff, working collaboratively with municipal staff and regional planning agencies will start assembling master address files for individual communities. The expectation is that these files will be built using address information from parcel data, street centerline files, and other sources with the objective being to create address points representing all structures in each community.

### **Mapping DCR Infrastructure for Snow Removal**

MassGIS and DCR GIS staff were engaged in a project from August through November of this year to inventory DCR/Urban assets related to snow removal including parkways, sidewalks, pedestrian bridges and crosswalks and to work with DCR operations staff to create a GIS version of DCR's snow management plan. We used GPS units and laptops in the field to collect the inventory data and then produced working maps for use in planning sessions with DCR operations staff that showed T stops, schools and other facilities that might affect the snow removal priorities. The final result is a complete inventory of assets that will become part of DCR's overall effort to centralize such information in DCR's Facility and Asset Management Information System (FAMIS ) as well as a very detailed GIS representation of snow removal priorities. Internally, DCR staff is now using ArcGIS to track status of snow removal during storm events as district and regional staff report in to their Storm Center. DCR has also made the plan available through a Web interface at [http://maps.massgis.state.ma.us/DCR\\_Snow\\_Priority/viewer.htm](http://maps.massgis.state.ma.us/DCR_Snow_Priority/viewer.htm)

This simple html viewer is pretty much self-documenting, but if you have comments or questions about it you can contact Christian Jacqz at MassGIS at [christian.jacqz@state.ma.us](mailto:christian.jacqz@state.ma.us).

### **Database Updates**

- **New Crime Statistics and Police Employment Layers - 12/15/2005**  
The State Police Crime Reporting Unit has made available statistical data that MassGIS has developed into GIS spatial datasets. The new layers include:
  - [Crime Statistics By Municipality](#)
  - [Crime Statistics By Colleges and Universities](#)
  - [Police Employment By Municipality](#)
  - [Police Employment By Colleges and Universities](#)
  
- **New [NRCS HUC \(8, 10, 12\) Basins](#) Layer - 11/23/2005**  
This dataset is a digital hydrologic unit boundary layer that is at the Subwatershed (12-digit) level. The layer also includes delineations at the Watershed (10-digit) and Subbasin (8-digit) levels. Each basin is identified by a unique Hydrologic Unit Code

(HUC), as well a name, at each level. HUCs are identifiers as assigned to basin polygons by the U.S. Geological Survey (USGS).

- **[New MassDEP Oil and/or Hazardous Material Sites with Activity and Use Limitations \(AUL\) Layer](#)** - 11/7/2005

This statewide point dataset contains the approximate location of oil or hazardous material release/disposal sites where an AUL has been filed. An AUL provides notice of the presence of oil and/or hazardous material contamination remaining at the location after a cleanup has been conducted pursuant to Chapter 21E and the MCP. The sites mapped in this datalayer represent only a subset of the total reported release sites tracked by MassDEP BWSC. See the [datalayer description page](#) for complete details.

- **C21e Layer Updated** - 11/4/2005  
DEP GIS Group has updated the [Tier Classified Chapter 21E Sites](#) datalayer. Three sites were added and 73 sites were removed.

### **What's New on the MassGIS Web Site**

- **[Hydro Centerline Data for Two Watersheds](#)** - 11/30/2005  
Downloadable shapefile data are now available for the North Coast and Taunton watersheds. These layers, however, have not been processed to be used as part of the Watershed Analyst.
- **[Recapping GIS Day 2005](#)** - 11/21/2005  
See pictures from the November 16, 2005 event at the State House.
- **[New DEP Title 5 Viewer](#)** - 11/10/2005  
Displays MassDEP's Title 5 Setback Areas and base map features.

### **From the Order Fulfillment Staff**

In a constant effort to simplify and speed interaction with our constituents, we have created new, more user friendly, online order forms, which will be implemented in January. One of the primary changes is to the map products form.

- You no longer need to reset the form for each individual map; rather you can order several different maps at once.
- Since datasets are becoming larger, we are now offering DVD as a media type.
- Also, we will no longer send out contours with Standard Statewide sets, as these data are quite large and never change; this must now be added using a check-off box on the form.

There are two new standard map products, which will be available via the new order forms. The first is a Massachusetts Senate and Representative District map. This map has municipalities, counties, and the Legislative districts, labeled with the district name.

The second is the result of an collaborative effort by MassGIS' staff to create a colorful, useful, and informative general-purpose map of the Commonwealth. This 36"x 44" map has indexed cities and towns, counties, major roads, generalized topographic relief all MBTA Rail, ferry routes, major watersheds, and town-level population density.

## Online Mapping

State Police Launch [SPOLIVER](#)

Building upon [OLIVER](#), the open source mapping service developed at MassGIS, the State Police have created an online crime statistics mapping application. More than twenty years worth of crime and officer employment data are displayed geographically by municipality and by university, and many of the [MassGIS layers](#) are also available. Detailed breakdowns of over twenty types of crimes can be analyzed over time from town to town and from university to university, with the most recent crime data as of 2003 and the most recent employment data as of 2004. As with MassGIS' OLIVER, it is anticipated that the functionality will increase, as will the number of public safety related data layers.

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Any comments or suggestions about the GISette are welcomed at [paul.nutting@state.ma.us](mailto:paul.nutting@state.ma.us).

MassGIS-The Commonwealth's Office of Geographic and Environmental Information is located within the Executive Office of Environmental Affairs and is charged with the collection, enhancement, storage and dissemination of the Commonwealth's geographic data.

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