

# 1st Annual New York State Remote Sensing Symposium

*Emerging Technologies for a Post-9/11 World*

**May 9, 2002**

**Empire State Plaza, Albany, New York**

Sponsored by-



Central New York Region of the American Society for  
Photogrammetry & Remote Sensing

Co-sponsored by-



State University of New York College of  
Environmental Science & Forestry

This conference serves to focus attention, not only on events shaping the world we live in today, but on the role and impact that remote sensing will play in addressing the needs of our neighbors, friends, and country tomorrow. Several of the presentations and discussions that are scheduled will provide an overview of the impact that remote sensing technology had during the response to the September 11 attack on New York City. Other presentations lay the foundation for the continued expansion of the role remote sensing (and you) can play to meet tomorrow's needs. The Central NY Region of ASPRS is looking forward to your involvement in shaping the future of our region, our field, and our country.

**Workshop Location:** Empire State Plaza, Albany, New York. Directions will be sent with acknowledgment of registration.

**Lodging:** A block of rooms has been reserved at the Crowne Plaza Hotel, State and Lodge Streets, Albany, at \$109 per night. Call 518-462-6611 or 800-2CROWNE to reserve your room; mention the NYS Remote Sensing Symposium to qualify for the symposium rate. Cut-off date: 3:00 pm on April 18, 2002. At this time, the block will be released for general sale. All requests after this date will be handled on a space and rate available basis.

**Questions?** Contact ESF Continuing Education at (315) 470-6891.



[General Information](#)

[Preliminary Agenda](#)

[Registration Information](#)

[Registration Form](#)

[Directions & Maps](#)

[Symposium Flyer](#)

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*Emerging Technologies for a Post-9/11 World*

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## Preliminary Agenda

9:00 am Registration and Coffee

10:00 **Keynote Speaker:** *Terrence J. Keating, Ph.D.*, ASPRS National President 2002-2003

Terry Keating is the president of Lucerne International, a company that provides strategic planning, marketing, quality assurance, professional consulting and project management associated with surveying, photogrammetry, image-based mapping and spatial information management activities. Dr Keating has been involved with ASPRS since joining as a student in 1971. He will take over as the ASPRS National President at the Annual Conference in April 2002 and will serve until the 2003 conference.

### Session 1: Acting on the Lessons Learned from the World Trade Center Experience

10:15 **A Legacy of the World Trade Center Experience: Confirming and Improving the Value of Geographic Data**, *Alan Leidner*, GIS Director, New York City Dept. of Information Technology and Telecommunications

Mr. Leidner was directly involved in the coordination of remote sensing and GIS information collection and distribution in support of the World Trade Center response. He will discuss the lessons learned, the need for improvements, and steps that NY City is taking to make those improvements.

10:40 **Improving Emergency Remote Sensing Data Collection in the Wake of 9/11**, *Bryan Logan*, President and CEO, EarthData Holdings

EarthData was contracted by the New York State Office for Technology to provide aerial remote sensing data over the World Trade Center site during the emergency response. Mr. Logan will discuss that experience and initiatives that EarthData is involved in to improve response for future emergencies.

11:05 **The Critical Link: Turning World Trade Center Remote Sensing Data into Information for Emergency Responders**, *Sean Ahearn, Ph.D.*, Director, Center for Analysis and Research of Spatial Information (CARSI), Hunter College, New York City

Dr. Ahearn and his CARSI staff were directly involved in mapping and GIS support for the World Trade Center response. He will discuss and illustrate the challenges in converting the basic remote sensing data provided to them into immediately usable visual and cartographic products that conveyed critical information to the planners and the responders on the ground. He will also discuss how this process may be improved for the future.

11:30 **Panel Discussion** with *Alan Leidner, Bryan Logan* and *Sean Ahearn*

Noon Lunch

### Session 2: Data Fusion and Advanced RS Technologies

1:15 pm **Fast Image Registration and Change Detection**, *Herb Hirsch*, MTL Systems, Inc.

MTL Systems, Inc. is developing new technologies for rapidly registering images, detecting changes, and automatically mining image data products in large, distributed databases. These software tools are finding application in a broad range of military and commercial areas. This presentation will include an overview of these techniques and their current applications, and real-time demonstrations of the registration, change detection, and image mining tools.

1:45 **Fusion Of Collects to Unify Selections (FOCUS) for Rapid Decisions**, *Mr. Randy Young*, Pennsylvania State University

The future of remote sensing will exploit automated information fusion for resource management as well as information extraction, association and combination. Rapid, automated decision-making requires combining reliable information from diverse sources. Automated tasking of data collections

that are extremely time-responsive demands an information fusion system that maps multiple users' requirements and already available information into "situation resolving or ambiguity resolving" info needs/requests. Mr. Young will present the Fusion Of Collects to Unify Selections (FOCUS) for Rapid Decisions program that rapidly, effectively & efficiently transforms massive amounts of disparate data into User-Centric/User-Controlled/User-Optimized knowledge.

- 2:15 **Nomadic Computing and Wireless Communications to Meet the Expeditionary Warrior's C4ISR Needs: Pocket COP**, *Pete Batcheller*, Booz•Allen & Hamilton Inc., Joint Combat Information Systems Group

The Services and Agencies are pursuing a variety of handheld C2 and wireless technologies to support the nomadic computing and wireless communication needs of the dismounted and mobile, expeditionary combatants in the battlespace of today and the future. This paper discusses a growing body of enabling technologies and capabilities that address these needs. Systems addressed include the Windows CE-based Joint Expeditionary Digital Information System "Pocket COP" and "COP-Lite" family of Pocket PC and laptop platforms, as well as a Windows NT-based wireless to wire line Communication Processor gateway system.

- 2:45 **Remote Sensing Applied to the NYC Watershed Protection Program**, *George Washburn, Dave Nouza and Jennifer Barber*, PAR Government Systems Corporation (PGSC)

The NYC Watershed represents over 2,000 square miles in the Catskill/Delaware and Croton watersheds. The water supply system consists of 19 drinking water reservoirs and a series of connecting aqueducts, and provides drinking water to over 9 million people in the NYC metropolitan and surrounding areas. The challenges of planning, monitoring and modeling of water quality, and managing the land use practices are formidable. The effective use of modern GIS and remote sensing technologies is a key ingredient in the success of the watershed protection program. PGSC is supporting NYS DEC and NYC DEP regarding the collection of remotely sensed data, development of imagery-derived products, data management architecture development, and the design and development of water quality modeling support software tools.

- 3:15 Coffee Break

### **Session 3: New Technologies to Support Emergency Response**

- 3:45 **Experiences Supporting Emergency Response Applications with the Emerge Sensor**, *Gerald J. Kinn and Michael R. Burnett*, Emerge

Recent advances in the commercial, digital image component markets have enabled the development of new, cost effective, direct digital, remote sensor systems that make rapid supply of imagery to the users GIS very practical. Mr. Kinn was one of the initiators of the Emerge Business in 1997, now part of E-ConAgra.com, a ConAgra company. He lead the Emerge Engineering and Development team through initial operating status and now holds the position of Senior Advisor to the President of Emerge, responsible for new technology plans and efforts related to the remote sensing and geographic information aspects of the business. His presentation will discuss the use of The Emerge sensor in actual emergency response activities as well as in qualification test environments.

- 4:15 **The Effective Use of LIDAR Imagery for Precision Mapping Applications**, *Art Lembo*, Cornell University

The use of LIDAR imagery in support of topographic mapping operations has increased in recent years. Often, LIDAR sensors are used to develop an accurate terrain model for photogrammetric mapping. Additionally, the use of LIDAR imagery has proven effective for precision mapping of civil infrastructure. This presentation will detail the use of LIDAR imagery for precision mapping of transportation infrastructure maintained by the Long Island Rail Road. The presentation will discuss the methods for performing the precision mapping at the Long Island Rail Road, the resulting products, and the accuracies achieved. The presentation will also highlight the cost savings achieved by using a LIDAR technique instead of traditional photogrammetric methods.

- 4:45 **Hyperspectral Imaging, Modeling, and Simulation of Chemical Gas Plumes: A Remote Sensing Perspective**, *John Schott and Rolando Raqueno*, Rochester Institute of Technology (RIT)

This presentation will highlight the research conducted at the Digital Imaging and Remote Sensing (DIRS) Laboratory at the RIT in hyperspectral remote sensing of chemical plumes. DIRS had been investigating the technology of detection, identification, and quantification of chemical gas plumes from a modeling perspective using a suite of first principles, physics based models to analyze and understand the processes behind the dispersion of these effluents. We will present key results and

validations of our modeling and simulation tools and present our perspective of the future direction of this technology.

5:15 **Remote Sensing Support to Emergency Response**, *Alan Will*, National Nuclear Security Administration (NNSA) Remote Sensing Laboratory (RSL)

The RSL at Las Vegas provides an extensive remote sensing capability (radiologic, multi/hyperspectral, photographic, data fusion and analysis, and aviation) in support of emergency response and consequence management activities for the Department of Energy/NNSA. These services are also provided to Federal, State, and local agencies in support of DOE/NNSA's national security, environmental, and natural disaster response requirements. This presentation will describe the wide range of remote sensing capabilities available for application to a variety of emergency response requirements, discuss inter-agency cooperative activities, and relate lessons learned from real world applications.

5:45 Reception with cash bar

6:30 Dinner

7:30 **CNY ASPRS Annual Meeting & Student of the Year Presentation**

8:00 **Speaker:** ASPRS National President, *Terry Keating*

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# **1st Annual New York State Remote Sensing Symposium**

*Emerging Technologies for a Post-9/11 World*

**May 9, 2002**

**Empire State Plaza, Albany, New York**

## **Directions & Maps**

[Directions to Reach the Empire State Plaza](#)

[Empire State Plaza Vicinity Map](#)

[Parking Information and Map](#)

[Empire State Plaza Interior Map](#) (Word Document)

## 1st Annual New York State Remote Sensing Symposium

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Empire State Plaza, Albany, New York

### Directions to Reach Empire State Plaza

From the North:

- o take I-87 south to the interchange with I-90
- o take I-90 east to the interchange with I-787
- o take I-787 south to the exit for Rensselaer/Empire Plaza, bear right towards the Plaza
- o take the entrance road, which goes under the Plaza, to the Visitor Parking "V Lot" (formerly P3 North) on the right (north side). This is a pay parking lot. **For security purposes, you will be asked to show a picture ID.** If the lot is full, there are outside pay lots near the Plaza on all sides as well as limited on-street metered parking.
- o take the nearest elevator on the V Lot to the Concourse Level and follow the detailed Empire State Plaza Map to Meeting Room 3 on the Main Concourse

From the West:

- o take I-90 east to the interchange with I-787
- o take I-787 south to the exit for Rensselaer/Empire Plaza, bear right towards the Plaza
- o take the entrance road, which goes under the Plaza, to the Visitor "V Lot" (formerly P3 North) on the right (north side). This is a pay parking lot. **For security purposes, you will be asked to show a picture ID.** If the lot is full, there are outside pay lots near the Plaza on all sides as well as limited on-street metered parking.
- o take the nearest elevator on the V Lot to the Concourse Level and follow the detailed Empire State Plaza Map to Meeting Room 3 on the Main Concourse

From the South:

- o take I-87 north to the junction with I-787
- o take I-787 north to the exit for Rensselaer/Empire Plaza, bear right towards the Plaza
- o take the entrance road, which goes under the Plaza, to the Visitor "V Lot" (formerly P3 North) on the right (north side). This is a pay parking lot. **For security purposes, you will be asked to show a picture ID.** If the lot is full, there are outside pay lots near the Plaza on all sides as well as limited on-street metered parking.
- o take the nearest elevator on V Lot to the Concourse Level and follow the detailed Empire State Plaza Map to Meeting Room 3 on the Main Concourse

From the East:

- o take I-90 west to the interchange with I-787
- o take I-787 south to the exit for Rensselaer/Empire Plaza, bear right towards the Plaza
- o take the entrance road, which goes under the Plaza, to the Visitor Parking "V Lot" (formerly P3 North) on the right (north side). This is a pay parking lot. **For security purposes, you will be asked to show a picture ID.** If the lot is full, there are outside pay lots near the Plaza on all sides as well as limited on-

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## **Parking Information**

The Office of General Services operates several visitor parking areas in and around the Empire State Plaza in downtown Albany, New York. Please review the information below, if you have any questions about visitor parking, please [e-mail](#) or call us at (518) 474-8118.

All visitor parking under the Empire State Plaza is now located in the V Lot (formerly known as P-3 North). All oversized vehicles (in excess of 6' 6") will be accommodated on an as needed basis for up to 27 vehicles on P-1 North. Visitors entering the V Lot are required to show a photo identification and their vehicle is subject to a search.

Two visitor parking areas are located on Madison Avenue, which is just south of the Empire State Plaza. Both areas are within easy walking distance of the Plaza's main concourse level and all building entrances. These areas are the Cathedral lot and the Madison Avenue lot.

We also have a visitors lot located on Grand Street, just east of the Empire State Plaza East Garage. The Grand Street lot is conveniently located. You can easily access the Plaza as well as numerous downtown buildings from this location.

Handicapped parking is available in the V Lot (P-3 North). Oversized handicapped vehicles (in excess of 6' 6") will be accommodated on P-1 North. In addition, if you are planning to visit the New York State Museum or the State Library, handicapped visitor parking spaces are also available in the Cathedral parking lot. Please see the [map](#) for locations. If you have any specific questions about the availability of handicapped parking, please feel free to [e-mail](#) or call us at (518) 474-8118.

All visitor parking is on a pay-upon-entry basis (see fee structures below). Refunds are given upon exit, depending on the length of your stay.

A [map](#) of OGS operated lots for visitors also shows two private owned public parking lots.

### **V LOT (P-3 NORTH) and P-1 NORTH**

Hours of operation - 6:00 A.M. to 3:00 P.M. (Monday through Friday)

- \* \$8.00 payable upon entry prior to 10:00 a.m.
- \* Stay of 0-2 hours = \$6.00 refund upon exit
- \* Stay of 2-4 hours = \$4.00 refund upon exit
- \* Stay of 4 hours or more = No refund
  
- \* \$4.00 payable upon entry between 10:00 a.m. and 1:00 p.m.
- \* Stay of 0-2 hours = \$2.00 refund upon exit
- \* Stay of 2 or more hours = No refund
  
- \* \$2.00 payable upon entry between 1:00 p.m. and 2:00 p.m.
- \* No refunds given if entry is after 1:00 p.m.
  
- \* There is no charge for visitors parking if entry is after 2:00 p.m.

### **CATHEDRAL LOT**

Hours of operation - 6:00 A.M. to 3:00 P.M. (Monday through Friday)

- \* \$7.00 payable upon entry prior to 10:00 a.m.
- \* Stay of 0-2 hours = \$5.00 refund upon exit
- \* Stay of 2-4 hours = \$3.00 refund upon exit
- \* Stay of 4 or more hours = No refund

\* \$4.00 payable upon entry between 10:00 a.m. and 1:00 p.m.

\* Stay of 0-2 hours = \$2.00 refund upon exit

\* Stay of 2 or more hours = No refund

\* \$2.00 payable upon entry between 1:00 p.m. and 2:00 p.m.

\* No refunds given if entry is after 1:00 p.m.

\* There is no charge for visitors parking if entry is after 2:00 p.m.

### **MADISON AVENUE**

Hours of operation - 7:00 A.M. to 2:45 P.M. (Monday through Friday)

\* \$7.00 payable upon entry prior to 12:00 P.M.

\* \$4.00 payable upon entry after 12:00 P.M.

There are no refunds given at this location.

### **GRAND STREET SURFACE LOT**

Hours of operation - 6:00 A.M. to 2:00 P.M. (Monday through Friday)

\* \$5.00 All Day - payable upon entry

\* There is no charge for visitors parking if entry is after 2:00 p.m.

There are no refunds given at this location.

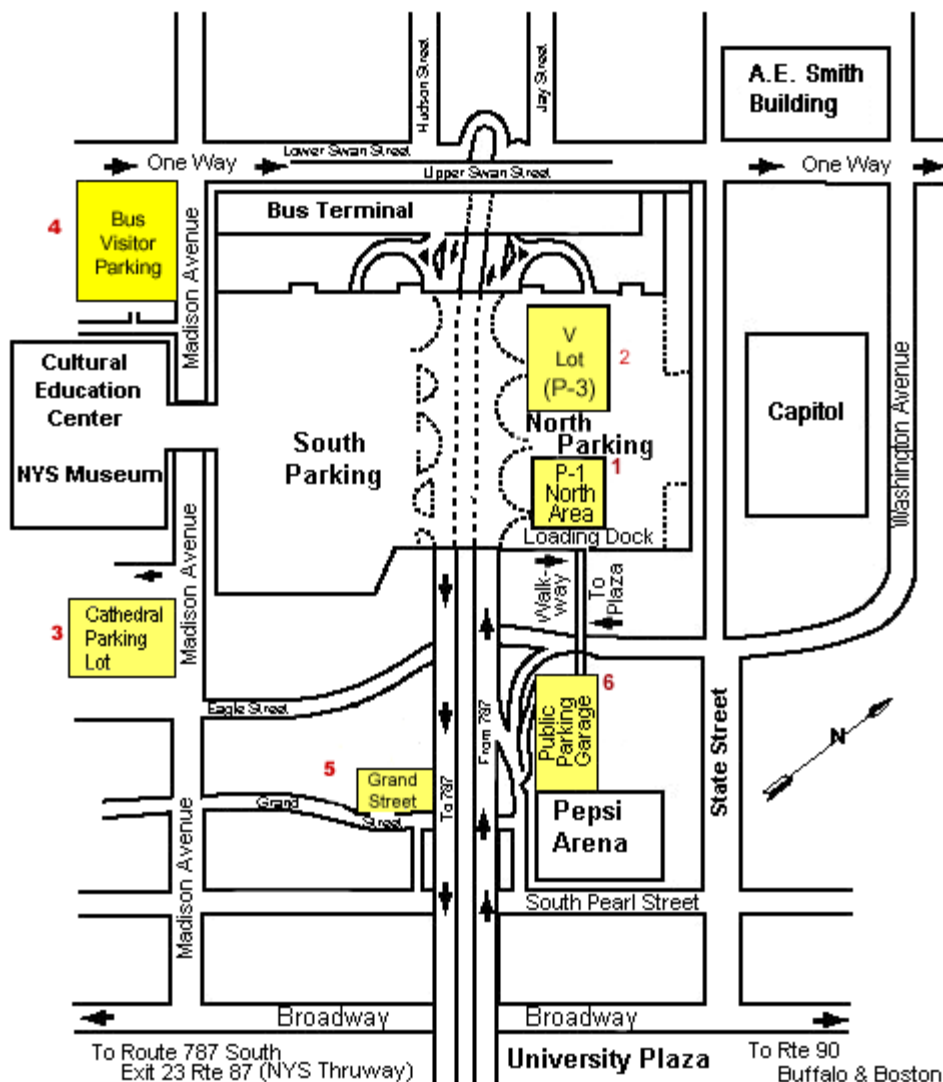
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## Parking Map



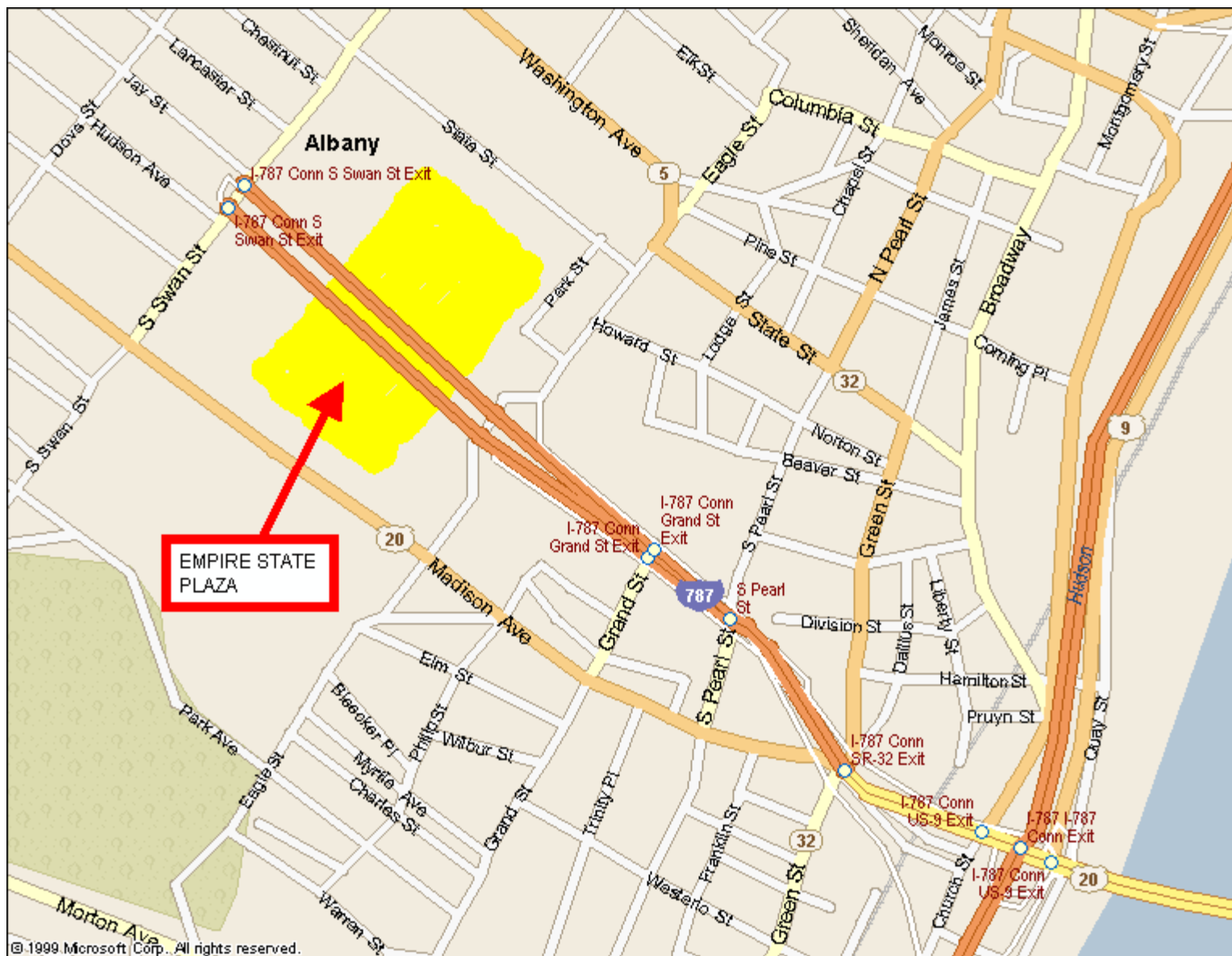
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## Empire State Plaza Vicinity Map



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**To Register: *Please preregister!*** Simply fill out and mail the [registration form](#) with your registration fee. You may register by phone by calling ESF Continuing Education at (315) 470-6891; or fax to (315) 470-6890.

**Registration Deadline:** Registrations *and payment* must be postmarked by April 30, 2002 to qualify for the early discount. Government or corporate purchase orders received by the deadline qualify for the early discount.

**Registration fee:** Register **and pay early** for the early discount fees. All fees are payable to: *CNY ASPRS*. The dinner is an additional fee of \$25 (\$15 for students).

<b>Paid by April 30:</b>	<b>\$50</b>
<b>Paid after April 30:</b>	<b>\$75</b>
<b>Student fee:</b>	<b>\$30</b>

**Refunds:** SUNY-ESF reserves the right to cancel any program in the event of insufficient registrations. A full refund will be given if a program is canceled. Participants who wish to withdraw must give written notice by April 30 receive a full refund. After that date a \$25 cancellation fee will be charged. Substitutions are permissible at any time.

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### Print and Mail or Fax to ESF Continuing Education

Name \_\_\_\_\_

Organization \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Phone ( \_\_\_\_ ) \_\_\_\_\_ Fax ( \_\_\_\_ ) \_\_\_\_\_

email \_\_\_\_\_

Special needs: \_\_\_\_\_

### Register me for the 1st Annual New York State Remote Sensing Symposium

Enclosed is my conference fee, *payable to CNY ASPRS*:

Registration fee: \$75 ; \$50 before April 30, 2002

Student registration fee: \$30

\_\_\_ Dinner tickets @\$25 (\$15 for students)

Mail or fax form to:

ESF Continuing Education  
SUNY College of Environmental Science & Forestry  
1 Forestry Drive, Syracuse, NY 13210-2784

**FAX: 315-470-6890**

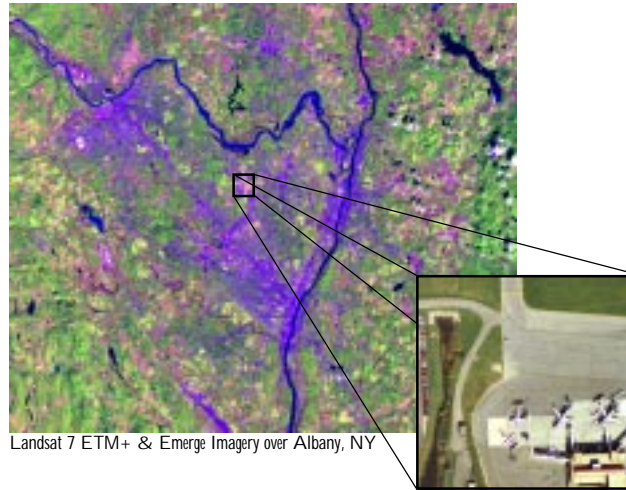
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ESF Continuing Education  
 SUNY College of Environmental Science & Forestry  
 Syracuse, New York 13210-2784

ESF CONTINUING EDUCATION  
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Landsat 7 ETM+ & Emerge Imagery over Albany, NY

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**Symposium Fee:** Early registrations, received by April 30 are eligible for the discount fee of \$50. If received after April 30, the full fee is \$75. The student fee is \$30. The registration fee includes lunch, refreshments, reception, and materials. The dinner is an additional fee of \$25.

Fees are payable to CNY ASPRS. Purchase orders will be accepted.

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### Registration Form

## 1<sup>st</sup> Annual New York State Remote Sensing Symposium

Name \_\_\_\_\_ Organization \_\_\_\_\_

Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_ Zip \_\_\_\_\_

Phone ( \_\_\_\_ ) \_\_\_\_\_ Fax ( \_\_\_\_ ) \_\_\_\_\_

email \_\_\_\_\_

Dietary or special needs: \_\_\_\_\_

Register me for the NYS Remote Sensing Symposium on May 9, 2002.  
Enclosed is my registration fee, *payable to CNY ASPRS.*

Fees:

**Registration:**     If received by April 30:    \$50  
                               After April 30:                     \$75  
                               Student fees:                         \$30

\_\_\_ **Dinner tickets** @ \$25 (Student dinner tickets: \$15)

Mail form to:

ESF Continuing Education, SUNY College of Environmental Science & Forestry  
1 Forestry Drive, Syracuse, NY 13210-2784

**FAX: 315-470-6890**

**Early Registration Deadline: April 30, 2002**