

TIPS NEWS

Technical Innovation and Professional Services

TIPS newsletter of highlights, news, and information for the TIPS End User

If you use any TIPS services – this document is for you!!!

TIPS web page: [html://www.tips.osmre.gov](http://www.tips.osmre.gov)

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Atlanta Geospatial Conference
December 7-9, 2004
Register Now... Details on p. 12

TIPS Welcomes New Staff

- *Billie Clark, TIPS Manager*

Please join us in welcoming Dianne Osborne and Steve Trujillo who have joined the National TIPS Team in Denver, Colorado. Dianne is the TIPS Remote Sensing Specialist. Prior to joining TIPS, Dianne was a remote sensing specialist with the Bureau of Land Management's National Science and Technology Center in Denver, CO, where she developed prototype applications for vegetation mapping and trend analysis using remote sensing in support of special status species conservation and rangeland health initiatives. Dianne brings a broad depth of remote sensing expertise to OSM. She has worked throughout the Western U.S. and Alaska for the Bureau of Land Management and the National Park Service using remote



Diane Osborne & Steve Trujillo

sensing to support resource management decision making. Dianne has also worked with the DOI International Technical Assistance Program to provide remote sensing technical support and training in South America. Dianne has a B.S. in Wildlife Biology from Colorado State University and has 20 years of applied remote sensing experience. Come meet Diane December 7-9, 2004 at the Geospatial Conference in Atlanta, Georgia. Dianne can be contacted at:

dosborne@osmre.gov, (303) 844-1400 ext. 1417.

Steve Trujillo is the TIPS Program Analyst. He comes to TIPS from the Defense Finance and Accounting Service (DFAS) Denver Center. He has 20 years of Federal service. Since 1999, Steve has served on a special projects team performing various staff duties to include, cost analysis, project management, and support to senior staff. Steve is a graduate of the College of Santa Fe, he is married with two teenage sons and lives in Aurora, Colorado. Steve will be working behind the scenes to keep TIPS functioning smoothly. Steve will be handling the TIPS budget and capital planning. Steve can be contacted at: strujillo@osmre.gov, (303) 844-1400 ext. 1463.

Geospatial Conference...

Are You Attending?

Information Below...

**ADVANCED
INTEGRATION
OF GEOSPATIAL
TECHNOLOGIES
IN MINING &
RECLAMATION**

**SPONSORS: OSM-TIPS
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ATLANTA, GEORGIA

DECEMBER 7-9, 2004

Software News – Updates and New Software

Software Upgrades Available October 22, 2004

– *Mary Greene*

The Technical Innovation and Professional Services (TIPS) is pleased to provide you with six Core Software updates:

- ArcGIS 9.0
- Galena 4.01
- Groundwater Modeling System – GMS 5.0
- Groundwater Vistas 4.0
- HEC-RAS 3.1.2
- KeyServer Client 6.0.24

If you have not received your upgraded software, contact your office TIPS liaison.



Software Patches: If patches are available for a TIPS core software package, the web pages providing information on how to download the patches are listed at the end of the software upgrade information. If there are no patches listed, then TIPS will automatically provide you with the upgrades during the next software deployment.

Descriptions of uses for each of the software programs are included on the TIPS website under *Software/Hardware Support*. This will give you an idea of how the TIPS tools can help you right away in the work you do. **TIPS software HELP**

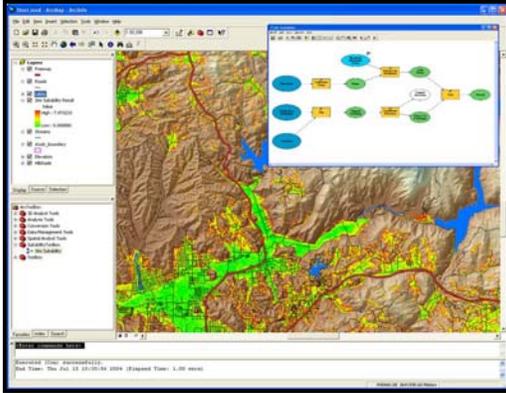
contacts are listed on the web page to support your software use.

Upgrade Notes and Highlights

ArcGIS 9.0 – *Alan Wilhelm*

1. TIPS has found that ESRI desktop product licenses remain checked-out even after users have exited the program. This seems to happen when users exit out of the ArcGIS Desktop products by clicking on the “close” icon located in the upper right hand window. **Please use the “File > Exit” option to exit all ESRI products.**
2. Please remember to uncheck the ArcGIS Desktop extensions when you are not using them otherwise they will be activated every time a user starts up the ArcGIS software even if the user does not need them.
3. Note - the MrSid extension and the Image Analyst extension will not work with ArcGIS 9.0. TIPS is working on solutions to these problems.

The FlexLM license server information was updated as of March 22, 2004. After installation of the new ArcGIS ArcInfo 9.0 software the user must create a new environment variable. The required information for the Flex-LM license server settings for ArcGIS is listed on the Software Information Sheet which is sent to your TIPS contact person and is always available from your TIPS Service Manger.



ArcGIS Patches

Below is the current list of patches that can be downloaded for the ArcGIS 9.0 Desktop software. The URL for this download site is:

<http://support.esri.com/index.cfm?fa=downloads.patchesServicePacks.listPatches&PID=43>

1. ArcGIS 9.0 Service Pack 2 will be available by early November - size unknown
2. ArcGIS 9.0 Service Pack 1 is available now for download - size = 68MB
3. ArcGIS Desktop 9.0 Raster Datum Transformation Patch - size = 1MB
4. ArcGIS Desktop 9.0 Spatial Statistics Geoprocessing Toolbox Patch - size = 1MB

If you have any questions, please contact Alan Wilhelm, ArcGIS software manager at: Awilhelm@osmre.gov, (303) 844-1400 ext. 1457.

Galena 4.01 – Lou Hamm

Changes in Galena with the v. 4.01 upgrade include:

1. The Material and Water properties has been changed to allow all materials that you may expect to encounter to be defined (not

necessarily during model definition) and saved – this option allows the effective creation of a ‘database’ of properties files, that can then be used for any model you wish to create without the need to define material properties for each model.

2. A unit weight for water (in-ground) may be defined with options, and used for all models without further definition.
3. You may now select distributed load and external force positions, circular failure positions, and annotation positions with the mouse.
4. Mouse line draw has been improved to make it more flexible and easier to use. This change was made in response to comments from students in the TIPS Galena classes.
5. A menu option has been added to allow you to send your Galena file to colleagues or to Clover Technology for help with problems.
6. A Required Definitions option (and dialog) has been added which allows the user to see at a glance the information required to complete a basic model.

These are just a few of the more notable changes with the upgrade.

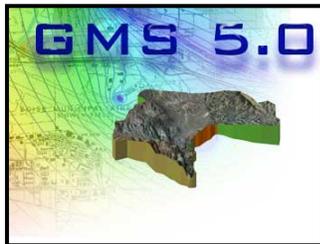


Galena Patches

Galena patches are available from the software download page on the TIPS web page at:

<http://www.tips.osmre.gov/Download/List.asp>. If you have any questions, please contact Lou Hamm, Galena software manager at: Lhamm@osmre.gov, (303) 844-1400 ext. 1475.

Groundwater Modeling System 5.0 – Mary Greene



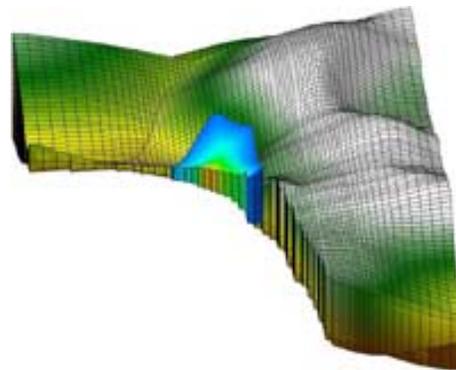
The ems-i vendor website provides extensive “What’s New” documentation for GMS at the

web site <http://www.ems-i.com/GMS/gms50new/>. The new features are listed in a menu on the left. To check out the new features in GMS, click on the items in the menu. Each page gives an overview of the feature and provides a simple set of instructions for using the feature. More detailed instructions will eventually be provided with the GMS v5.0 documentation.

New and improved features include Open GL Graphics, new conceptual model overhaul, new GIS module, new digital image tools, analytic element model (MODAEM), new coordinate conversion options, animated options, seepage face option, specified flow boundary condition, user-defined stochastic option, Generic Model Data Import/Export, New Stress Periods Dialog, Create Scatter Point Tool, Pilot Point Conditioning, and an Enhanced Data Tree.

In addition, changes have been made to the SEEP2D Phreatic Surface Display, Scaling

of Exported Images, Automatic Layer Assignment, and Spatially Varying Feature Object Elevations. Other Miscellaneous Features including the following minor enhancements were also included in GMS v5.0: MODFLOW Grid Location/Orientation, Better Memory Management for MODFLOW Arrays, and Fast Cross-Sections. The algorithm for computing cross-sections through solid models was optimized. Generating cross-sections on complex solid models now takes just a few seconds compared to several minutes with previous versions of GMS.



GMS Patches

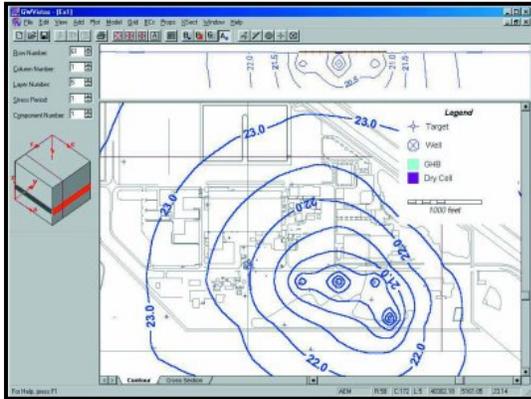
TIPS will provide you with all the GMS upgrades available via CD’s during a regular TIPS software distribution. If you have any questions, please contact Mary Greene, GMS software manager at: Mgreene@osmre.gov, (303) 844-1400 ext. 1438.

Groundwater Vistas 4.0 – Mary Greene

Version 4 has many new features and has organized some of the menus differently from previous versions. The Groundwater Vistas User’s Manual provides additional detail titled, “What’s New in Version 4”. The manual can be found in the manuals folder of the CD and will be installed on your computer with the software. Be

careful if you want to print this section – the entire manual is over 300 pages!

Highlights of the new capabilities include new property sheets which compress the many options available for each model into a tab dialog box; property matrixes allowing the option of choosing to make any property a matrix rather than working



with zones so the property data can be edited in a spreadsheet; the ability to find individual targets and wells; and the easy import of model results allowing the user to quickly scan the results of a transient model.

Additional new features include: mass balance for transient models; distributed computing; importing MODFLOW2000 and MT3D files; MODFLOW96 double precision; better PEST-ASP support; Improved stream support; automatically importing parameters for Pest, UCODE, and MF2k, digitizing to delete boundary conditions; enhanced figures capabilities allowing the creation of a figure at any time as well as multiple figures easily for slide shows; the addition of spreadsheets to many dialogs that use to have “Next” and “Previous” buttons. The list continues. I recommend you review this section of the manual as soon as the software arrives.

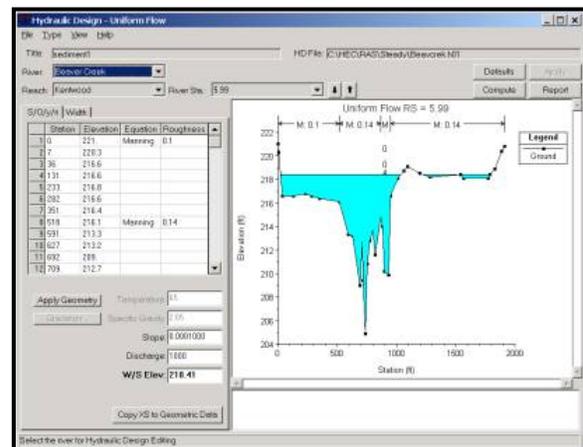
Groundwater Vistas Patches

TIPS will provide you with all the Groundwater Vistas upgrades available via CD’s during a regular TIPS software distribution. If you have any questions, please contact Mary Greene, Groundwater Vistas software manager at:

Mgreene@osmre.gov, (303) 844-1400 ext. 1438.

HEC-RAS 3.1.2 – Mary Greene

Version 3.1.2 is primarily an update of Version 3.1 to fix reported problems. The manuals were updated for Version 3.1 and are still applicable. These manuals include a thorough discussion of the theory behind the unsteady flow computations used in HEC-RAS. Additional features include mixed flow regime for unsteady flow, navigation dam simulation, pumps, and additional hydraulic design functions such as uniform flow analysis, stable channel design, and sediment transport capacity computations. A summary of the new features is available at the web site - <http://www.hec.usace.army.mil/software/hecras/hecras-whatsnew.html>. The complete release notes are available as a PDF and can be accessed on the above web site.



HEC-RAS Patches and Upgrades

HEC-RAS and the HEC series software upgrades and patches are available at the HEC web page listed above. TIPS will continue to provide you with all the HEC-RAS upgrades available via CD's during a regular TIPS software distribution. If you have any questions, please contact Mary Greene, HEC-RAS software manager at: Mgreene@osmre.gov, (303) 844-1400 ext. 1438.

KeyServer Client 6.0 – *Mike Benavides*

TIPS is providing this client upgrade in preparation to moving to the improved KeyServer 6.0 Server. Upgrading to KeyServer Client 6.0 will also resolve any conflict issues customers might be experiencing with EarthVision. **TIPS will provide you with all the KeyServer upgrades.** Please contact Mike Benavides, the KeyServer Administrator, if you have any questions, Mbenavid@osmre.gov, (303) 844-1400 ext. 1482.



Tips Core Software Testing with Windows XP

Service Pack 2 – *Mary Greene & Cathy McNish*

The TIPS core software packages are currently being tested for compatibility with the Windows XP Service Pack 2. When the results have been submitted, they will be summarized and posted on the TIPS web page. Look for this information in December 2004. Cathy McNish has assumed the lead for this project. Cathy

can be reached at Cmcnish@osmre.gov, (303) 844-1400 ext. 1473.

Future Software For Distribution And Availability - *Mary Greene*

TIPS is planning our next distribution in the spring of 2005. We anticipate providing you with updates for AutoCAD, and SDPS, and a new licensing scheme for SurvCAD. Other TIPS Core Software upgrades available at this time will also be distributed.

CAD News – *Bill Joseph and Kevin Garnett*

Autodesk has released Service Pack 1 for Map 2004 and Map Series 2004. If you download the service pack using the Live Update feature in Communication Center, the service pack version that you need is automatically identified. The Communication Center can be found by clicking on the small radar dish in the lower right hand corner of the screen when you are running Autodesk Map 2004. You can also download the service pack manually at the following link: <http://usa.autodesk.com/adsk/servlet/ps/dl/item?siteID=123112&id=3592209&linkID=2786655> (Note: you must download and install the English Un-Locked version of the Service Pack for the network licensed version that TIPS provides).

There is also a Service Pack for Autodesk Raster Design 2004. You can download Service Pack 1 for Raster Design at the following link:

<http://usa.autodesk.com/adsk/servlet/ps/dl/item?siteID=123112&id=3795524&linkID=2476535>

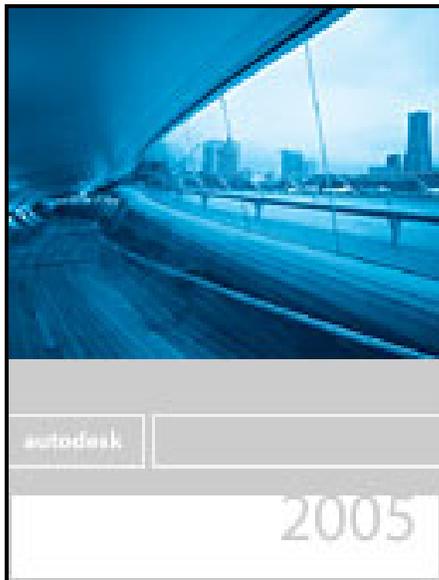
Carlson Software has released a new patch and updated release of SurvCADD XML2

issued on October 20, 2004. You can download these updates at <http://update.carlsonsw.com/updates.php> from the pull down menu select SurvCADD XML Release 2 (Current Version) and then click on the submit button.

SurvCADD may update automatically with the update wizard if this option is still turned on. You can also force an update at the main Windows Operating System by going to "Start" to "All Programs" to "SurvCADD XML Release 2" to "Check for SurvCADD Updates".

Autodesk Map 3D 2005

The TIPS CAD team is continuing to test Autodesk Map 3D 2005. Map 3D Service Pack 2 has been released and will hopefully resolve the remaining stability issues. The TIPS CAD team is also working with Carlson Software to bring the SurvCADD license server fully online. At this time we anticipate rolling out Autodesk Map 3D 2005, Autodesk Raster Design 2005, and the server version of SurvCADD XML 2 in February of 2005. TIPS will be discontinuing the licensing for Map 5 (2002) when Map 3D 2005 is released.



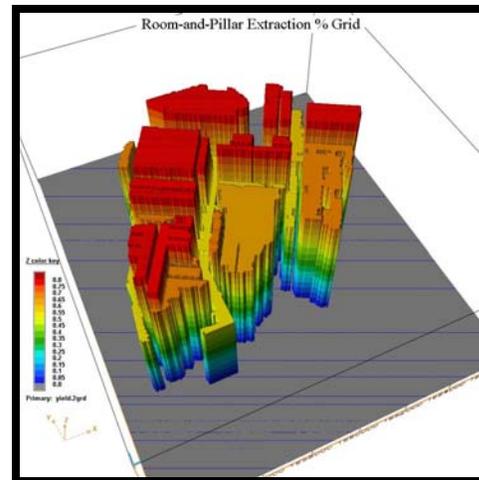
If you have any questions about the new releases of Autodesk or Carlson products, contact Kevin Garnett (kgarnett@osmre.gov, (618) 463-6463 x127) or Bill Joseph (bjoseph@osmre.gov, (618) 463-6463 x106).

earthVision News – Mike Dunn

XWin32 version 6.1 is available for download from the vendor: To access the correct download file for your type of licenses, please go to the XWin32 upgrade website at:

<http://www.starnet.com/support/upgrade.asp> and copy/paste your full license key (not the serial #) into the text box. Your license key number is available from your TIPS Service Manager or from Mike Dunn.

If you have any questions, please contact Mike Dunn, earthVision software manager at mldunn@osmre.gov, (412) 937-2910.



Software Installations

We encourage you to use any TIPS provided software on your individual desktop in the convenience of your own offices! Each software program is commercial software and has been successfully installed and used on computers world-wide.

TIPS assumes no responsibility for any consequences to your computers as a result of installing this software. In our testing we have found a few installation details which can be easily overlooked and may create installation issues.

We have addressed each of these details in a set of custom installation **instructions** which can be found on the TIPS website (www.tips.osmre.gov, click on the *Software/Hardware Support* link at the top of the page) or go directly to <http://www.tips.osmre.gov/SWinstall/SWList.htm>.

You will find it well worth the time to review these instructions carefully before beginning installation. In most cases, your software administrator will be required to install the software at your desktop.

TIPS Software Managers

Software Managers are listed on the TIPS web page, to assist you with software installation problems, or contact your TIPS Service Manager.

TIPS Service Managers

Service Managers are listed on the TIPS web page. They are ready to assist you.

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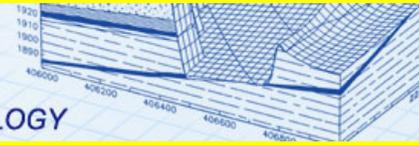
Act Now!

TOP FIVE REASONS TO ATTEND:

- 1. Network with State, OSM & industry geospatial experts for three days.**
- 2. Significantly decrease your learning curve for developing geospatial activities.**
- 3. Exposure to geospatial mining related activities throughout the nation.**
- 4. Review technical resources and support available to you.**
- 5. Major software vendors available for three days with presentations, at booths, and providing free consulting.**



TRAINING ... AT THE SPEED OF TECHNOLOGY



Training News

Scientific and Engineering Software Applications Training

– Robert Welsh

Training of state, tribal, and Office of Surface Mining personnel in the practical application of analytical software is an integral part of the TIPS mission.

Instructor-led courses incorporate the reclamation experience of its instructors and students to provide a unique shared training experience. Our instructors continually update the course materials and methodologies to retain the high professional level of the curriculum and incorporate the latest software functionality.

TIPS training during 2004 totaled 456 participants in 36 instructor-led classes, compared to 2003 levels of 393 participants in 32 instructor-led classes. Twelve instructor-led courses were held at customer sites with critical training needs for software use. The training program employed 48 different instructors in 2004; 16 of these were state program experts. The Government Performance and Results Act rating for this training satisfaction for 2004 was 90 percent. The four categories making up this score breakdown as follows: class satisfaction rated at 87 percent, facility at 88 percent, lead instructor at 93 percent, and co-instructor at 92 percent.

Additional E-training courses were offered to students in 2004. Eighteen new one-hour GIS Workshops were offered as

individual sessions in addition to 15 on-line courses through a contract with the Environmental Systems Research Institute Virtual Campus for basic geographic information system training. During the fiscal year, 54 students started new classes.

New courses planned for FY 2005 include two Mobile GIS Computing courses, three Advanced CAD courses, an Advanced StatGraphics Workshop, and an introductory ERDAS Remote Sensing



course. For more information on these courses please check the TIPS training website schedule at: http://www.tips.osmre.gov/training/tips_html/tipscourses_schedule_date.asp?FY=2005. On the schedule page, simply click on the course title to read the course content summary.

We encourage you to sign up for TIPS courses approved by your supervisor through the following state training contacts:

http://www.tips.osmre.gov/training/tips_html/contactus_coordinators.asp

For additional information, contact: Robert Welsh, TIPS Training Manager, rwelsh@osmre.gov, (303) 844-1400 x1478.

Galena Online Course – Veronika Eskova

NEW!

We are conducting usability testing for the Galena Online course.

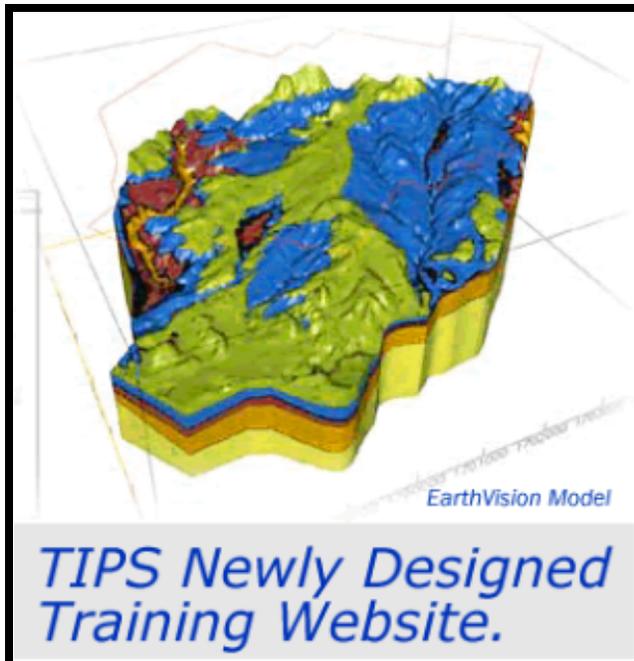
This is a great opportunity for professionals who want to polish their skills using Galena Slope Stability Analysis software. The Galena Online course is complete and ready for its first users.

The course provides a variety of methods to help users quickly gain expertise in the Galena software. Course materials were developed with respect to novices as well as experts who will find valuable resources to improve their knowledge of the Galena software.

The Galena On-Line course offers basic methodologies, multiple analyses, and mining oriented projects to practice with by using simulations and downloadable samples.

Please contact us to request access to the online Galena course for usability testing purposes. We need your feedback. The training contact person is Veronika Eskova, veskova@osmre.gov, (303) 844-1400 ext.1511.

For more information on the Galena Online course content please contact the course instructor Lou Hamm, lhamm@osmre.gov, (303) 844-1400 ext.1475.



www.tips.osmre.gov/training

Geospatial Conference:

**December 7-9,
2004 in
Atlanta, GA**

**Are You
Attending?**

**Information
Below...**

Hear Ye, Hear Ye: Come One, Come All to the Geospatial Conference - *Bill Winters*

The Office of Surface Mining (OSM), National Association of Abandoned Mined Land Programs (NAAML), Western Interstate Energy Board (WIEB) and Interstate Mining Compact Commission (IMCC) will jointly sponsor a national geospatial conference in December 2004 in Atlanta, Georgia. The Conference provides an opportunity for practitioners of advanced geospatial technology to discuss and exchange ideas on the application of this technology to SMCRA related issues. This nationwide conference will also provide a vehicle for State and Federal Regulatory agencies to exchange ideas with coal industry personnel that work on geospatial projects included as part of everyday permitting activities.

Technical sessions will include: Mobile Computing in Mining and Reclamation, Mine Permitting and GIS, GIS Design, Implementation and Management, Geospatial Technology and Bonding, AML Site Assessment, Design and Construction Management, GIS and Abandoned Underground Mines, GIS and GPS in Blasting Activities, Serving and Delivering Geospatial Data. The conference will also include poster sessions, vendor exhibits and a vendor project demonstration.

The conference originated from ideas presented at the TIPS Steering Committee meeting held September 9-11, 2003, in Breckenridge, Colorado. Several presentations were made to the Committee demonstrating the utility of geospatial technology through SMCRA project examples. The committee asked the TIPS team to investigate the feasibility of sharing this technology with the TIPS customer

community in general, with the hope of technology transfer, and to educate more potential users in the capabilities available to them. This conference is a result of that effort.

The conference will facilitate an exchange of geospatial solutions between users of advanced geospatial techniques on SMCRA related applications. The conference will include topical sessions related to GIS, GPS, Remote Sensing, Electronic Permitting, and Mobile Computing as applied to mining and reclamation issues. A bilateral approach is anticipated whereby high level demonstration projects solving SMCRA issues will be presented by end users. The second function involves incorporation of our main vendors (ESRI, AutoDesk, Trimble, ERDAS, Carlson) to demonstrate/discuss the latest trends affecting the geospatial community as applied to mining and reclamation.

Ideally, the conference would have 175 – 200 attendees including presenters, representing the full spectrum of geospatial users. It is the goal of this conference to share advanced geospatial technology with the SMCRA community. With the knowledge gained, it is hoped participants will return to their offices and inform others of the available technology and solutions.

A block of rooms has been reserved at the Renaissance – Waverly hotel in Atlanta, Georgia for the conference. **All potential presenters and attendees should contact their respective TIPS Training Contact for conference registration and further details.**

Current conference information can be found at:
<http://www.tips.osmre.gov/GeoSpatial/GeospatialConference2004.htm>.

All non governmental individuals should contact Karen Pierson at (303) 844 – 1400 ext 1487 for registration details. Please direct any questions or comments to Bill Winters, (412) 937 – 2105, or email: bwinters@osmre.gov.

Conference Format

- Mobile Computing in Mining & Reclamation
- Mine Permitting & GIS
- GIS Design, Implementation & Management
- Geospatial Technology & Bonding
- AML Site Assessment, Design & Construction Management
- GIS & Abandoned Underground Mines
- GIS & GPS in Blasting Activities
- Geospatial Databases for Historical Mine Records
- Serving and Delivering Geospatial Data
- Software Vendor Exhibits & Demonstrations
- Poster Sessions Highlighting TIPS Users Applications

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Abandoned Mine Land Programs**

Western Interstate Energy Board

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