

2009 TIPS Steering Committee Meeting



May 19th – 21st, 2009

**Gaylord Opryland Resort
Nashville, TN**

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Steering Committee – Nashville, TN

Tuesday, May 19, 2009

Steering Committee Attendees

State: Dave Berry; Julian Calabrese, *representing Neil Harrington*; Carl Campbell ; Larry Evans; Don McKenzie ; Greg Melton; Joe Taranto *representing Scott Roberts*; Mark Schlimgen; Mike Sharp

OSM: Roger Calhoun; Billie Clark; John Craynon; Sarah Donnelly; Paul Ehret; Jeff Fleischman; Lou Hamm; Al Klein; Bob McKenzie

Conference Guests: Earl Bandy; Bill Card; Karyn Evans; Bill Joseph; Orsain Larranhondo; Cathy McNish; Eric Perry; Dan Rivers; Steve Trujillo; Jessica Villanueva; Bill Winters

Live Meeting Conference Guests: Tonya Buckmaster; Debbie Dale; Dianne Osborne; Stefanie Self; Robert Welsh; Alan Wilhelm

2009 Steering Committee Decisions

- AqQa, water –chemistry modeling software, was added as TIPS core software.
- The Draft Memorandum of Agreement for all state and tribal customer sites was accepted with the exception of West Virginia, and possibly Montana, that use Citrix. An alternative agreement will be drafted suited to their systems. Julian Calabrese will find out about the Montana system and report back to Lou.

2009 Goals and Priorities

- **Geospatial Strategy** – Continue to develop a plan to share geospatial data nationwide in a coordinated way via the web. Work through the NCMGC and its Data Stewards to get this started.
- **Service Manager Emphasis** – Service Managers and their constant contact with TIPS customers is a priority. Improvements must continue.
- **Virtual Presence (NGA)** – Access to satellite imagery is of great interest to SMCRA efforts nationwide. The pilot project that TIPS continues to work on with the National Geospatial Intelligence Agency (NGA) may result in the ability to acquire imagery at reduced or no cost. This proposal must be pursued to completion. TIPS expects to reach an agreement one way or the other within 12 months. Promote and assist the development of a national mining and reclamation map showing the locations of active and proposed permits, underground mine extents, and tie the information to underground mine maps and the Mine Map Repository, as well as AMLIS.
- **Software Distribution** – Create a table on the TIPS website that lists each core software product, along with the current version, date distributed, number of licenses, and the Software Manager contact information.
- **Matrix for Managing Growth** – Develop a matrix that indicates the priorities and workload of TIPS to demonstrate and track the resources and limits of TIPS. Use this as a systematic way of evaluating new proposals, and identify processes that are no longer useful. Consider the following:
 - People helped
 - States/Tribes helped

- Complexity
- Cost
- **Update Strategic Plan** – Include the process matrix of TIPS tasks, and the efforts toward a virtual presence in a national mining and reclamation map.
- **Increased Communication** – Use a group email application to send notices to TIPS customers regularly regarding:
 - Email notification of updates
 - Success team coordination
 - Other items of interest
- **Success Teams**
 - Communication – Regular communication between Success Teams is needed, so that each team is aware of initiatives and processes of one another. This can lead to better coordination of initiatives and training.
 - Downsizing – Downsizing of Team initiatives may be necessary to ensure that the items most important to the states are covered adequately.

2009 Steering Committee Suggestions

- **TIPS Charter**
 - Add the Success Teams, and a description of their duties, to the Team Charter.
- **Training Suggestions**
 - Suggest 1 instructor and 1 local helper vs. 2-3 instructors to cut down on instructors needed.
 - Use webinars for refresher modules.
 - Schedule winter classes for MT/ND/Alaska students due to short field season.
 - Extract pieces out of established training class and make them available on-line to get students familiar with the necessary concepts – get them started.
 - Establish priorities of “nice vs. needed”
 - Partner with Universities; provide them an expert and let them develop the course using mining examples.
 - Add TIPS admin staff in other Regions
 - Add regular information about classes to the email notification that goes to TIPS customers (outlined above in TIPS Goals and Priorities), such as the latest blurb and student quotes. May get instructors or helpers as a result.

Lou Hamm and Al Klein – Welcome

Theme for this year's meeting "Sounds of the Future"

Lou Hamm, Karyn Evans - Introductions

Opening Icebreaker "What kind of musical talent do you have?"

Current TIPS Initiatives are:

- TIPS Internal Control Review 2008.
 - (i) obligations and costs are in compliance with applicable law;
 - (ii) funds, property, and other assets are safeguarded against waste, loss, unauthorized use or misappropriation; and
 - (iii) revenues and expenditures applicable to agency operations are properly recorded and accounted for to permit the preparation of accounts and reliable financial and statistical reports and to maintain accountability over the assets.
 1. Better tracking of license usage
 2. Better tracking of technical assistance
 3. Obtain necessary financial reports from FBMS
- Since the last meeting.
 - Added more software licenses
 1. KeyServer
 2. ArcEngine
 3. AutoCAD
 - DOI Installs New Security Measures
 1. Intrusion Detection System – access to TIPS Licenses Temporarily Affected
 - Exploring Bureau Geospatial Policy
- Status of Last Year's TIPS Steering Committee Initiatives
 - Develop Geospatial Tools & Application Strategy
 - Software Distribution Strategy
 - National Delivery of Coal Mining Data – Role of the NCMGC
- Emphasis this meeting on: Priorities and Emerging Technologies
 - Priorities
 1. Service Managers
 - New Service Managers Added
 - Service Manager Meeting in Pittsburgh
 - Improved Web Tools
 - Success Team Sites
 - Download Software – Partial
 - Information Sheets
 - Tonya will Report on the Service Manager Team this afternoon
 2. Remote sensing pilot project
 - Exploring an Agreement with the National Geospatial Intelligence Agency (NGA)
 - The Remote Sensing Success Team will report this afternoon
 3. Training
 - Karyn Evans will Report This Afternoon
 - NTTP and TIPS Work Together More Than Ever

- More Web-Based Information
 - 4. Geospatial Planning and Assistance
 - Report Tomorrow Morning
 - Greg Morlock & Alan Wilhelm Show How It Is Possible - Prototypes
 - Collaborative National Coal Mining Regulatory GIS (CCRG)
 - OSM Organizational Geocator (OOG)
 - Emerging Technologies
 1. Mobile Computing Devices
 - Team report this afternoon
 2. Geospatial Strategy
 - Report tomorrow morning
 3. Innovative Technology
 - Dan Rivers tomorrow morning
- Business Networking
 - Following Committee Member Reports Tomorrow Afternoon
 1. Identify Issues
 2. Brainstorm
 - Identify Goals and How TIPS is to Proceed – Thursday
- TIPS Awards Dinner Wednesday
 - Dave and Buster’s
 - Outstanding TIPS Contributor Award
 - TIPS Introspective Roast – Greg Melton

Tonya Buckmaster - Service Manager Update

Service Manager Role:

- Primary contact between TIPS and customer.
- Member of Service Manager and TIPS Teams.

“The goals of the service manager are to communicate the TIPS mission; maintain relationships with the TIPS user community; and provide value-added services to meet those needs.”

- Meet with assigned customers on an as needed basis, at least once annually.
- Identify programmatic needs and contribute to customer action plans.
- Facilitate the implementation of TIPS services.
- Ensure timely distribution of software.
- Coordinate with Training Program Leader on special requests.
- Keep OSM field office managers informed of site visits and significant TIPS program activities.
- Encourage customers to provide quality feedback concerning the use of TIPS tools.
- Attend all scheduled TIPS bi-weekly teleconferences, quarterly Service Manager teleconferences, and the TIPS annual meeting.

Your service manager is:

- Dave Agnor Columbus Field Office (FO)/Ohio
- Paul Behum Arkansas/Kansas/Missouri
- Li-Tai Bilbao OSM Headquarters, DC
- Tonya Buckmaster Big Stone Gap FO/Knoxville FO/Virginia/Tennessee
- Henry Austin Casper FO/Colorado/N. Dakota/Wyoming/Utah
- Tom Cunningham Harrisburg FO/ Maryland/Pennsylvania
- Kwang Min Kim Alabama/Birmingham FO/ Indiana/ Oklahoma/Tulsa FO
- Duane Matt Alaska/Albuquerque FO/ Crow/Farmington Area Office/
Hopi/Navajo AML and Tribe/New Mexico/ Olympia Area
Office/WR
- Corey Miller & lessha Moore Kentucky/Lexington FO
- Mike Richmond Charleston FO/West Virginia
- Stefanie Self Alton Field Division/ Illinois/Iowa/ Louisiana/MCR/
Mississippi/Texas
- Susan Stoyek ARC/Ashland FO/Wilkes-Barre FO

Service Manager Team Meeting:

- December 2008
- Discussed Service Manager roles, provided forum for questions and discussions on how to improve services provided by TIPS and Service Managers.
- Distributed Service Manager Reference Guides.
- Discussed solutions to challenges Service Managers face with TIPS and their customers.

Service Manager Team Meeting Results:

- Developed internal OSM SharePoint site to distribute information and maintain necessary files for working with customers.
- Distributed SM supply packets to deliver to customers.
 - Software/Hardware Data Sheets
 - Training Catalog
 - E-learning Resource Guide
 - Career Series Guide
 - Promotional Items

Challenges... what to do?:

- Clarify and streamline software distribution process.
- Vary types of visits to overcome scheduling conflicts with customers.
- Require communication with FOD regarding visit to customers.
- Offer incentives and follow up with TIPS contacts at each site to encourage information dissemination.
- Communicate training and registration processes with customer.
- Communicate with supervisor regarding time commitments and activities regarding TIPS.
- Take classes, increase TIPS tool knowledge, use resources, and know your customer's needs.

For the Future:

- Continue to increase communication between TIPS technical representatives and Service Managers.
- Improve customer site visits and get to know your customer.
- Develop and improve customer action plans.

Stefanie Self – CAD Team

Team Members are from OSM and States.

- Teresa Baker (PA)
- Li-Tai Bilbao (OSM HQ)
- Tonya Buckmaster (OSM BSG)
- Jeff King (PA)
- Tom Mastaller (OSM AR)
- Joe Matyus (PA)
- Randall Mills (OSM MCR)
- Doug Mullins (VA)
- Harry Ranney (CO)
- Stefanie Self (OSM MCR)
- Mike Sharp (OK)

Mission

- The mission of the TIPS CAD Team is to develop and maintain effective training and technical assistance for Autodesk and Carlson software distributed and supported by the TIPS program.

Team Structure:

- State/OSM members.
- OSM members are assigned roles of Team Leader, Software Manager, and Budget Manager.
- Any member may hold role as Course Manager, currently there are three.
- Team will hold face-to-face meeting when possible and will hold teleconferences at a minimum every quarter.
- Changes to structure/charter must be made through Team consensus.

Accomplishments:

- Updated 3 courses.
- Began development of 2 courses (Bridging the CAD/GIS Gap, Design Review).
- Re-developing Advanced Carlson course.
- Development and instruction of five on-site trainings.
- Evaluation and distribution of 2009 release for Autodesk and Carlson.
- Funded attendance for 9 members at 2008 Autodesk User's Conference.
- Continued evaluation of Autodesk's Civil 3D, Autodesk Design Review.

Software Status

- Currently supported:
 - AutoCAD Map 3D 2005/07/08/09
- Key Features:
 - Precision editing of GIS data.
 - GIS tools for map creation and presentation.
 - Web publishing capabilities.
- Currently supported:
 - AutoCAD Raster Design 2005/07/08/09
- Key Features:
 - Accurate raster to vector conversion tools.
 - Raster editing and drawing cleanup tools.
 - Raster data analysis.
- Currently supported:
 - Carlson SurvCADD 2005/2006
 - Carlson Mining 2007/2008/2009

- Key Features:
 - Built on AutoCAD.
 - Surface modeling tools.
 - Design options work from actual surface topography, geologic data and equipment parameters.

License Status

- AutoCAD Map 3D (54)
- AutoCAD Raster Design (27)
- Carlson SurvCADD/Carlson Mining Modules
 - Natural Regrade (8)
 - Survey (300)
 - Civil (300)
 - Hydrology (100)
 - Field (15)
- AutoCAD Civil 3D (7 – prototyping)
- AutoCAD Map Guide Server (10 seat intranet – prototyping)

License Usage

- The following states logged usage from the TIPS servers for AutoCAD and Carlson Software: Alabama, Alaska, Arkansas, Colorado, Illinois, Iowa, Kansas, Kentucky, Louisiana, Missouri, Montana, New Mexico, North Dakota, Ohio, Oklahoma, Pennsylvania, Texas, Utah, Virginia, West Virginia, Wyoming
- Due to changes in the tracking software we do not have usage statistics such as have been provided in the past.

FY2009 Courses

- CAD Fundamentals for Permitting and Reclamation (2)
- AutoCAD Map for Permitting and Reclamation (1)
- AutoCAD Map with Raster Design for Underground and Surface Mine Mapping (1)
- Carlson Mining for Permitting and Reclamation (1)
- Advanced Carlson Mining for Permitting and Reclamation (1)
- This list does not include on-site and custom training.

Innovation

- AUTOCAD CIVIL 3D
 - Evaluation of software for replacement of Carlson products.
 - Includes all AutoCAD Map Functions.
 - Allows for quicker evaluation and implementation of design edits on projects.
 - Analyze contours, slope, elevation and watershed areas.
- New AutoCAD pages on TIPS Website.
 - CAD software now downloadable.
 - Outlines “What’s New” and current TIPS CAD courses.
 - Provides current manuals.
 - Links to additional resources including help contacts.

<http://www.tips.osmre.gov/CAD/default.htm>

- Autodesk Design Review
 - Currently demonstrating software usage during existing courses.
 - Beginning development of formal course.
 - Streamlines review of designs with simple tools to review, compare, mark up and track changes.

- Allows for geo-referencing within file while editing.
- Ability to combine project data such as images and specifications in a single file.
- Integration with Autodesk software, so users can overlay changes and comments on the original computer-aided design (CAD) file.
- Focused on software maintenance and update of existing courses.
- Annual funding:
 - 2009 Annual Autodesk User's Conference attendance (10).
 - 2009 Carlson Annual User's Meeting attendance (1).
 - Team meeting.
 - Two course development meetings.

Debbie Dale/Eric Perry – Hydrology

TIPS Hydrology Success Team

State Participants:

Kathy Muller Ogle (WYDEQ-LQD)
 Mike Sheehan (WVDEP)
 Tim Walter (TX RRC)

OSM Participants:

Debbie Dale (Lead) (OSM-MCR)
 Eric Perry (OSM-AR)

Mission:

The mission of the TIPS Hydrology Success Team is to provide leadership and direction to the SMCRA Hydrology Program by providing software, training, and technical guidance on hydrology-related issues.

Objectives:

- Improve TIPS hydrology services to the States, Tribes and OSM offices.
- Identify potential hydrology classes and associated software.
- Review and critique hydrology software.
- Act as a liaison between hydrologists at OSM, States and Tribes, the National TIPS Team, and other Federal Agencies.
- Encourage coordination between TIPS and NTTP
- Provide briefings and recommendations to the TIPS management and TIPS Steering Committee pertaining to the TIPS Hydrology program.

Team Strategy

- Meeting the needs of our customers

Improved Communications

- *Hydro community at large
- *Newsletter article
- *Web page
- *Integrating hydro software with other TIPS software (e.g. geospatial)
- *Maintaining core software
- *Identify and integrate new hydro software
- *Course offerings
 - E-Training courses
 - Instructor led courses

What are the goals of the hydro team in 2009?

- Top 10 Goals for FY '09:

1. Secure OSM-WR / AR Representatives
2. Select Geochemical software
 - a) Propose AqQA to steering committee
 - b) Develop on-line course (in progress)
3. Hydro Team website & data sheet
4. Explore the potential of using existing software for hydro applications and the possibility of integrating into a new course within TIPS
5. Identify software needs not currently addressed
6. Fund/support:
 - a) GWB workshop (Sept. 22-24)
 - b) WMS training (Sept. 14-17)
 - c) Advanced GMS training (Aug. 24-27)
7. Team meeting
8. Complete comparison of GMS and GWV
9. Establish links to other hydro software & related sites
10. Draft protocols and guidance for new hydro software and course managers

More accomplishments in FY '09 so far:

- Secure OSM-WR / AR representatives
- Replacement software for AquaChem
- Hydro Team websites & data sheets
- Hydro software information sheets
- Funding GWB, WMS, and GMS training workshops
- Funded attendance to AGU conference in S.F.
- Procured new Software Managers for GWB, GWV, HEC-RAS, RUSLE, WMS and Course Manager for GWV

Hydro Team Software Innovations:

- Software upgrade releases
 - *AQTESOLV v4.5
 - *GWV v5
 - *GMS v6.5
 - *WMS v8.1

Existing Hydro Software

Hydrology Software	Software Manager	Number of current licenses
AMD Treat	B. Means	Unlimited
AqQA	B. Hicks	5
Aqtesolv	D. Dale	8
AquaChem	B. Hicks	11
Geochemist Workbench	B. Means	14
GMS	T. Galya / C. Bailey	4
Groundwater Vistas	D. Dale	5
HEC-RAS	D. Rahnema	Unlimited
MIKE 11/SHE	D. Rahnema	1
RUSLE	D. Rahnema	Unlimited
SEDCAD	D. Rahnema	30
WMS	LWT	3

Question: Does TIPS want AqQa to replace Aquachem?

Decision: The Steering Committee has approved this request.

Alan Wilhelm – GIS

GIS Team Members

- Dave Agnor – OSM CFO
- Janine Ferarese – OSM WR
- Jo Gault – OSM KFO
- Bruce Johnson – ND PSC
- Daniel Kestner – VA DMME
- K. Min Kim – OSM MCR
- Alan Wilhelm – OSM WR (retired July 2009)

Current Software Status

- ArcInfo Desktop ver. 9.3 – Concurrent Use – 100 licenses
- 3D Analyst ver. 9.3 - Concurrent Use – 100 licenses
- Spatial Analyst ver. 9.3 - Concurrent Use – 100 licenses
- Survey Analyst ver. 9.3 - Concurrent Use – 100 licenses
- ArcScan ver. 9.3 - Concurrent Use – 100 licenses
- Geostatistical Analyst ver. 9.3 - Concurrent Use – 100 licenses
- Data Interoperability ver. 9.3 - Concurrent Use – 7 licenses
- Maplex ver. 9.3 - Concurrent Use – 100 licenses
- Network Analyst ver. 9.3 - Concurrent Use – 100 licenses
- ArcView ver. 9.3 – Single Use – 7 copies deployed
- ArcEditor ver. 9.3 – Single Use – 12 copies deployed
- ArcGIS Server Advanced Enterprise ver. 9.3 – 10 copies deployed
- ArcPad ver. 7.01 & 7.1 – Single Use - 202 copies deployed

ESRI Enterprise License Agreement

- New 5 year agreement – 2009 to 2014
- Increase in yearly cost for OSM from \$76,500 to \$150,980
- 200 ArcPad 7.x legacy licenses
 - Will allow OSM to migrate to ArcPad 8.0 at no cost (savings of \$61,200)
- ELA vs. GSA savings for 2008 was \$695,692

GIS Training Courses

- Underground Mine Mapping with GIS
 - No classes held in FY09
 - Introduction To ArcGIS for Mining & Reclamation
 - Three classes in FY09
- ArcGIS Spatial Analyst for Mining & Reclamation
 - One class in FY09
- ESRI Online courses
 - 82 different courses available
 - 31 courses issued so far for FY09
- E-Tools course
 - One class taught in Denver

GIS R&D Activity

- Image Server
 - Working with jp2, tif & img formats
 - Tested on-the-fly - reprojection, mosaicking, pan sharpening, & ortho rectification
 - Will be testing ability to serve up DEMs (hillshades, contour maps, slope maps, & grid analysis)
- National Permit Boundary Prototype (In-house web access only)
 - Permit layers – 30,463 pts & 19,436 polygons
 - AML sites
 - Reg. 8 information
- Office Location Prototype (In-house web access only)
 - OSM, State & Tribal office locations
 - Office address, Office contact info

Robert Welsh – Mobile Computing

What is TIPS Mobile Computing

- Providing TIPS-approved handheld or computing device with GPS
- TIPS-supplied Mobile GIS software on-board for navigation, data verification, GIS-building, data collection (non-Garmin)
- Live GPS position fix with imagery displayed as background
- Hands-on Training (on-site and training center) for mobile computing (SW-based)

TIPS Mobile Computing Team

- Jon Brandt (TX Railroad Commission)
- Leslie Bright (VA DMME)
- Ken Eltschlager (OSM-AR-Pittsburgh, PA) **Garmin support National Lead**
- Min Kim (OSM-MCR – Alton, IL) **ArcPAD support (Midcontinent and National Lead)**

- Russ Kirkham (AK-DNR)
- Tom Mastaller (OSM-AR-Pittsburgh, PA) **ArcPAD and Trimble Support (Eastern Lead)**
- Robert Welsh (OSM-TIPS) Team Leader – **Trimble, ArcPAD and Topcon Support (Western and National Lead)**

Mobile Computing Team Goals

- Provide seed technology and support the use of mobile geospatial technologies among TIPS users
- Perform R&D on emerging MC technologies
- Educate the TIPS mobile computing user base on the applications of the technology (i.e. Training courses)
- Inform the TIPS user community on TIPS customer MC applications (i.e. Workshops, Geospatial conference, MC website at http://www.tips.osmre.gov/tips_html/mobile_computing.asp)

MC Software & License Status

- PFOffice 4.1 is available as floating license
- TIPS-purchased support and maintenance for one year on Trimble HW and TerraSync – then customer picks up
- Trimble TerraSync v. 3.3 shipping with new hardware
- Trimble GPS Correct v. 2.1
- ArcPAD v. 8.0 (180 seats upgradable from 7.1)
- TopoFusion (license available to Garmin students)

FY09 MC Workplan

- Distribute HW/SW purchased with FY08 funds –
- Prioritize seed and emergency requests from TIPS customers through TIPS SMs
- R&D on new ruggedized laptops and devices
- Evaluate VA DMME mobile ArcEngine application for possible TIPS deployment
- Southwestern Indian Polytechnic Institute ProXRT class – This week
- Evaluate new training materials from Trimble - In progress
- Move blog to Sharepoint site for internal/external customers and update content

Training Course Status

- ArcPAD 7 (1 class) in development for FY09
- Garmin Vista HCX/TopoFusion (6 onsite, 2 training center classes)
- Terrasync 3.3 /PFOffice 4.10 (1 class), development for PFOffice 4.1
- ProXRT workshop (SIPI)

MC Innovation

- Prototype new ruggedized laptops and devices
- Evaluate JunoSC and Nomad G handhelds
- Evaluate new training materials for TerraSync, ArcPAD/GPSCorrect, TerraSync from Trimble
- Investigate moving Blog to new Sharepoint 2007 to improve user access
- Manage floating licenses for PFOffice v. 4.x

Dianne Osborne – Remote Sensing

Team Members

OSM Representatives

- Dianne Osborne Team Leader, TIPS
- Roger Calhoun Management Representative, AR-CHFO
- Bill Card Website Content Manager, AR-KFO
- Mike Dunn Research & Development Coordinator, AR
- Lukus Monette Appalachian Region Representative, AR
- Min Kim Mid-Continent Region Representative, MC
- Alan Boehms Western Region Representative, WR-CFO

State Representatives

- Larry Evans West Virginia DEP, Appalachian / Mid-Continent Region
- Russell Kirkham Alaska DNR, Western Region

Operations Plan for 2008 / 2009

Completed projects

- WV AMD Classification of CIR Aerial Photography
- KY AOC Proof of Concept

Prototype projects

- Mine Site Inspection - WV
- Water Quality & Land Use - TN
- Revegetation Success for Phase I & II Bond Release - WV
- AML Inventory - VA
- Highwall Inventory – WV
- Indiana Bat Habitat Criteria – IN

Ongoing Program Activities

1. **Image Data Acquisition**
Coordination, consultation, needs assessment
2. **Technology Transfer**
Formal training; informal & formal workshops
3. **Technical Support**
Software distribution, project support
4. **Technical Innovation**
Prototypical testing of remote sensing technologies
5. **Partnerships**
USGS / NGA / Academia

Training Courses

- ERDAS IMAGINE 9.2 / ERMAPPER 7.2
Ongoing vendor based training for advanced image processing
- Image Analysis for ArcGIS 9.2
Instructor-led and online course development
- 2009 Interest survey
Feature Analyst for ArcGIS & ERDAS IMAGINE / ERMAPPER Fundamentals
- USFS/RSAC Partnership
Online, Instructor-led & WebEx
- ERDAS
ERDAS Imagine 9.2 (27 Licenses)

- IMAGINE VirtualGIS (1 License)
- IMAGINE AutoSync (2 Licenses)
- IMAGINE DeltaCue (1 License)
- LPS (2 Licenses)
- LPS Terrain Editor (1 License)
- ERDAS MosaicPro (3 Licenses)
- IMAGINE MrSID Desktop Encoder (1 License)
- Stereo Analyst (1 License)
- ERMAPPER (6 Licenses)
- Remote Sensing Extensions for ArcGIS
 - Image Analysis (29 Licenses)
 - Stereo Analyst (29 Licenses)
 - LiDAR Analyst (5 Licenses)
 - Feature Analyst (6 Licenses)

2009 Remote Sensing Team Priorities

- **OSM, USGS and NGA Remote Sensing Pilot Project**
A Partnership to Support the Surface Mining Control and Reclamation Act Regulatory Program

SMCRA Virtual Inspection Priorities	Virtual Performance Evaluation Method	Positional Accuracy	Minimum Feature Size	Remote Sensing Product/Delivered Format Requested from NGA
1. Mining within Valid Permit	Ortho Image / GIS Visualization	+/- 25 feet	NA	QuickBird satellite imagery / Orthorectified imagery
2. Mining within Bonded Area	Ortho Image / GIS Visualization	+/- 25 feet	NA	QuickBird satellite imagery / Orthorectified imagery
3. Diversion Construction	Ortho Image / GIS Visualization	+/- 10 feet	3 feet	QuickBird satellite imagery / Orthorectified imagery
4. Drainage - Acid/Toxic Seeps	Image processing w/ field verification	+/- 10 feet	3 feet	QuickBird satellite imagery / Orthorectified imagery
5. Contemporaneous Reclamation	Ortho Image visualization and GIS analysis	+/- 25 feet	NA	QuickBird and WorldView-1 satellite imagery / Orthorectified imagery
6. Pre, Existing, and Postmining Topography including: * Slope angle * Slope shape * Slope length * Viewshed analysis * Volumetrics	DTM Image Processing and GIS analysis	+/- 2 foot vertical +/- 10 feet horizontal	5 feet	WorldView-1 satellite imagery / Digital elevation model - extracted from stereo paired imagery
7. Drainage Reconstruction	DTM Image Processing and GIS analysis	+/- 2 foot vertical +/- 10 feet horizontal	3 feet	QuickBird and WorldView-1 satellite/ Orthorectified imagery
8. Impounding Structures	DTM Image Processing and GIS analysis	+/- 2 foot vertical +/- 10 feet horizontal	25 feet	QuickBird and WorldView-1 satellite/ Orthorectified imagery
9. Distance Prohibitions	Ortho Image visualization and GIS analysis	+/- 10 feet	5 feet (grave site)	QuickBird and WorldView-1 / Orthorectified imagery
10. Vegetation: * Cover * Establishment * Species composition * Plant communities * Production (biomass) * Density (stems/acre)	Image processing w/ field verification		Plant communities = 0.5 acre	QuickBird satellite imagery and high-resolution color-infrared aerial photography flown at a 1:6000 scale / Orthorectified satellite imagery and photography

- Inspection Assistance Using Remotely Sensed Imagery
The purpose of this project was to determine if satellite imagery is economically and technologically feasible to reduce the cost associated with helicopter overflights associated with the inspection process. In addition, the study involved manual interpretation of a variety of images. Regular photographic data was supplemented by additional digital data provided by the West Virginia Department of Environmental Protection (WVDEP) GIS server that included a multi-layer data set of approved mining permits that were overlaid on USGS topographic 7.5 minute quadrangle maps. Mining related features such as, approved permit boundaries, sediment ponds and drainage structures, and valley fill construction were then overlaid onto the QuickBird panchromatic and multispectral satellite images for further identification. The project was a success in that remote sensing technologies can be used in many ways to support inspection and enforcement activities in a cost effective way. Applications include surface land-use-change analysis, valley fill activity assessment, permit boundaries, regional watershed studies, quality and quantity modeling, and many others.

- Assessing the use of High Resolution Satellite Imagery to Identify Water Quality Trends and Classify Post Mining Land Use
- Evaluating Indiana Bat Habitat Conditions on Surface Coal Mine Sites Using Remote Sensing Technologies: Pilot Study
*This is a pilot study to evaluate the feasibility of using remote sensing technology in developing a habitat assessment protocol for the endangered Indiana bat (*Myotis sodalis*). The ultimate goal of this project is to develop a suitability index, using remote sensing technologies, to both inventory and evaluate, patch and landscape habitat features suitable for the Indiana bat on or near reclaimed Indiana mine sites.*
Hope that Regulatory agencies responsible for implementation of SMCRA and the Endangered Species Act can use this geospatial application as a tool in evaluating how coal mining and forest reclamation affect Indiana bat ecology.
Landsat Thematic Mapper (LSTM), QuickBird (QB) satellite images, and high resolution aerial imagery were tested in the pilot study.
Of the currently existing remote sensing technologies, high resolution digital aerial imagery has the highest probability of identifying high quality habitat for summer use by Indiana bats.
CIR Image of High Resolution Imagery with Identified Snag Locations within Forested Canopy. (This image is located in Pike and Gibson Counties and is approximately ½ Mile wide).
Two Subsets of the High Resolution Imagery Showing Individual Snags. Each subset is Approximately 250 feet wide.
Principal Investigator: Dr. Michael J. Starr, Dr. Randall Pearson, and Dr. Shunfu Hu
Department of Geography - Southern Illinois University Edwardsville
- Analysis of High Resolution Satellite Images to Characterize Vegetation on Reclaimed Surface Mines
- Assessing the use of High Resolution Satellite Imagery to Inventory Abandoned Mine Land Features in Southwestern Virginia

VA DMLR Priority	AMLIS Priority	Feature Mapped	Comments
Remined areas	N/A	No	Historical photography and change detection analysis needed.
Areas for remining consideration	N/A	Yes	
New AML sites	N/A	Yes	VADMLR to verify
Dangerous <u>highwalls</u>	1 & 2	Yes	
Gob piles & Spoil piles	3	Yes	
Clogged steams	1 & 2	Yes	
Clogged stream lands	1 & 2	Yes	
Subsidence	1 & 2	No	Additional field points needed.
Acid Mine Drainage	1 & 2	Yes	
Dangerous Slides	1 & 2	No	Additional field points needed.
Hazardous equipment & facilities	1 & 2	No	Range of target features is too broad
Portals	1 & 2	No	Additional field points needed
Apple Cores	1 & 2	No	Additional field points needed

- Comparison of On Ground GPS and Remote Sensing Technologies for Evaluation of Approximate Original Contour (AOC+) in West Virginia
A Cost Benefit Analysis: Field GPS vs. Remote Sensing for Mine Site Grading Evaluations.
 The Office of Surface Mining Reclamation and Enforcement (OSM) and the West Virginia Department of Environmental Protection (WVDEP) have embarked on a review to compare the costs and benefits of two very different types of data gathering methods to accomplish a specific mission. The agencies have generated cross sections of large land disturbances using hand held GPS units and are also obtaining similar information on the same sites using remote sensing. By maintaining an accurate accounting of all factors associated with both methods, the agencies plan on gaining a better perspective on the costs and benefits of these technologies for future decisions.
 For this project, the mission involved comparing pre, proposed, and final graded slopes on eight large steep slope surface mines as part of the review of "Approximate Original Contour" requirements under the West Virginia coal mining regulatory program. The approved coal mining permit contains a two dimensional representation of a typical cross section of the proposed land configuration after mining. Therefore, the agency requires a comparison of these proposed cross sections to the actual field conditions. OSM and WVDEP placed people in the field with GPS units to replicate the elevation measurements and create cross sectional images at the same locations as approved in the permit as "typical" cross sections. Actual costs, including salary, per diem, vehicle costs etc. were kept for the field GPS exercise. These costs will be compared to the costs for acquiring and processing remote sensing data. Benefits of each of the data gathering methods will also be compared and discussed.

- Assessing the use of IFSAR and LiDAR Imagery for the Detection of Highwall Features
GIS analysis tools were utilized to isolate, extract, and characterize mining highwall features from a LIDAR elevation grid of Wyoming County, West Virginia. The study identified over 306 miles of highwall features, which effectively doubled the existing inventory. In addition, the new dataset added an estimation of height and slope for each highwall segment, which was not available previously.

Short Term Plans

- Remote Sensing Workshop - ASMR 2009
- Remote Sensing 2010 Strategy Team Meeting
 - Website
 - Service Manager PowerPoint
 - LiDAR Software Evaluation
 - Close Range Photogrammetry
 - Partnerships
 - AML LiDAR Initiative
 - Partnerships

Lois Uranowski – Technology Transfer Report

- What's up with OSM's Technology Transfer Program
- Technology Transfer
- What we are:
 - Regional
 - National TT Teams
- Technical Interactive Forums (regional and national)
- Applied Science Program
 - Kinds of funded projects
 - Where we stand
 - Cascading results to the right folks
- NTTT Website
- Outreach
- Exhibits
- Dissemination Technical Reports, Publications and CDs
- OSM Applied Science: The Rebirth of Science Funding
- In 2005 Congress authorized OSM to initiate a program to select and fund applied science proposals to
 - Improve protection of the public and environment
 - Advance improved technology development and transfer related to coal mining and reclamation.
 - These projects must have the potential to make a difference on the ground
- Goals: Change how we do our business!
- Applied Science Program
- 2005 to 2008

- \$3.8 million for all projects
- \$2.6 million for Appalachia projects
- 46 projects to date
 - 29 Appalachia
 - 7 Mid continent
 - 7 West
 - 3 Headquarters
- Active projects
 - 31 nationally
 - 19 Appalachia project
 - 7 Mid continent
 - 3 West
 - 2 Headquarters
- Completed projects
 - 15 Nationally
 - 10 Appalachia
 - 0 Mid continent
 - 4 West
 - 1 Headquarters

- Final Report Summary Sheets Link
- <http://www.techtransfer.osmre.gov/NTTMainSite/appliedscience/AScompleted.htm>

- National Technology Transfer
- <http://www.techtransfer.osmre.gov>

Sarah Donnelly – NTTP Training Report

NTTP & TIPS Cooperation

- Needs survey & course scheduling
- Instructor scheduling
- Joint teams (e.g., Instructor Council)
- Steering Committee membership
- Course development (e.g., Master Instructor Forum)
- Career series

Purpose of OSM's Technical Training Program

Provide Opportunities for State, Federal, and Tribal Personnel to:

- Increase knowledge of technical subjects
- Increase technical competence & skills
- Stay abreast of technological changes
- Common ground for enforcing surface mining laws
- Foster State/Tribal/Federal partnerships

Improved Job Performance

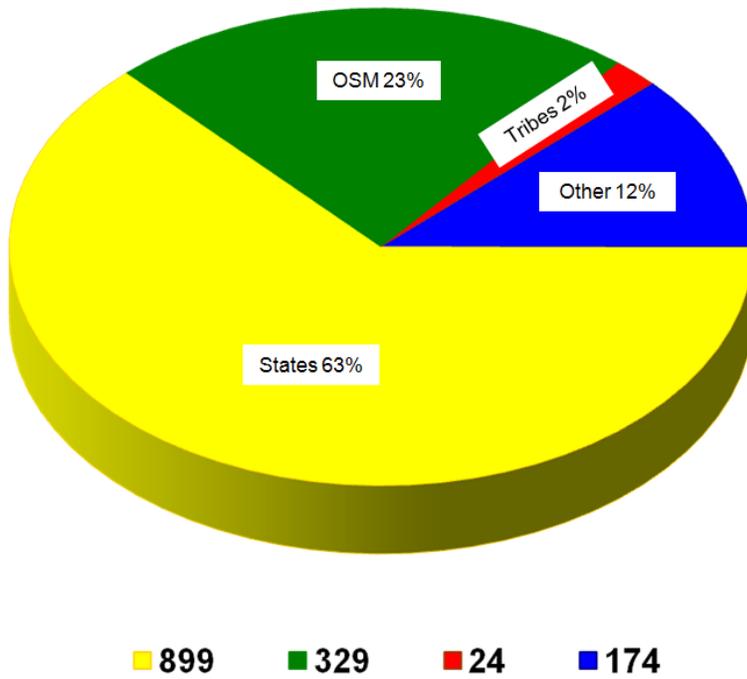
- Better Upfront Thinking
- Improved Confidence on the Job
- Improved Overall Knowledge

- Direct Application of Knowledge
- Improved Skills and Competence
- New Procedures
- Better communication with operators and community
- Cross-Training

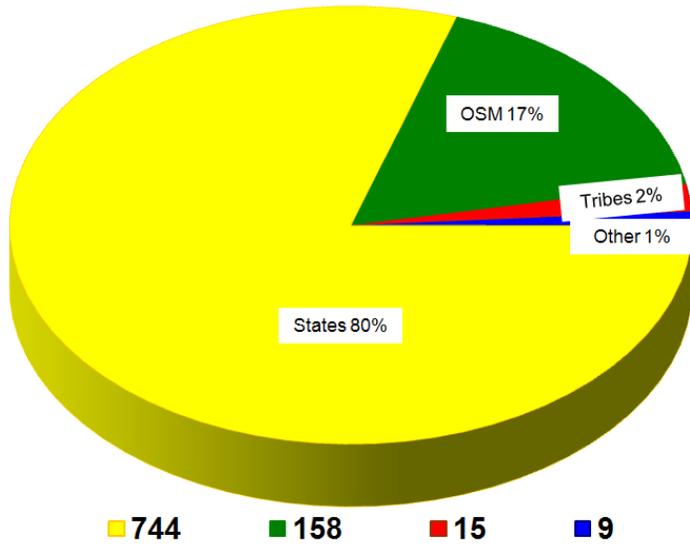
FY2008 GPRA Measures – 10/01/07 – 09/30/08

	Goal	Actual
Number of Students Trained:	1200	1426
Program Effectiveness Rating:	93%	96%

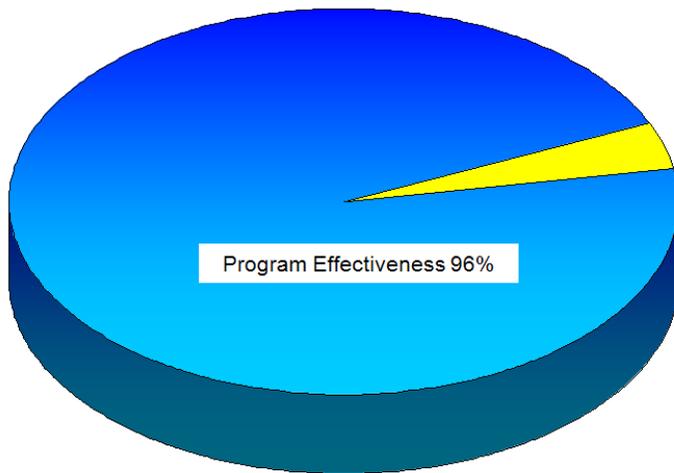
FY2008 Program Attendance – 1426 Students



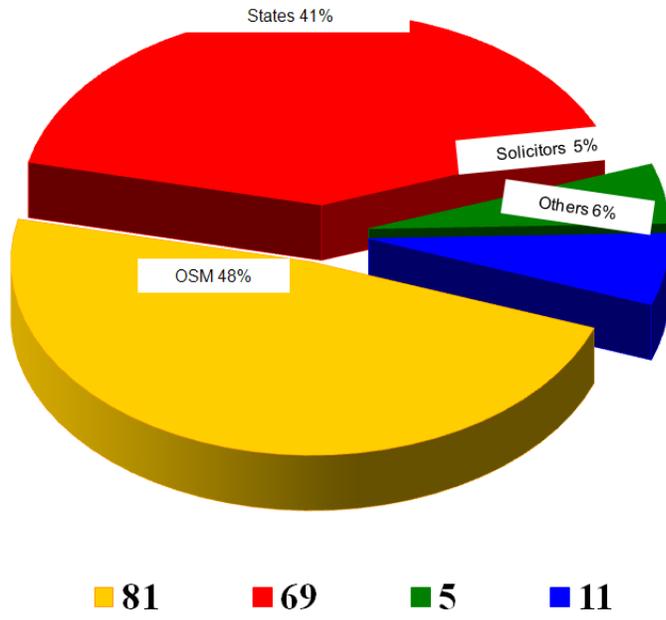
FY2008 Program Attendance – NTTP Courses Only – 926 Students



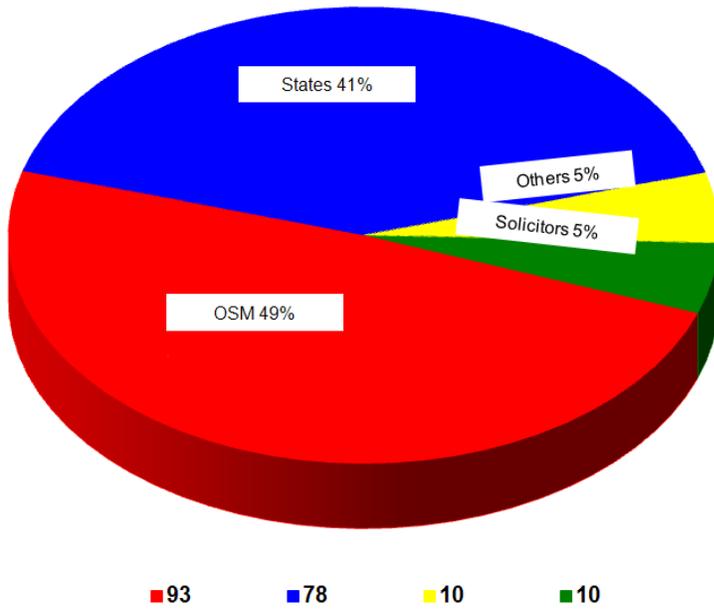
FY2008 Program Effectiveness Rating – 10/01/2007 – 09/30/2008



FY2008 NTTB Program Instructors - 169 State & Federal Instructors from 43 Offices



FY2009 NTTP Program Instructors – 191 State & Federal Instructors from 44 Offices



NTTP INSTRUCTORS

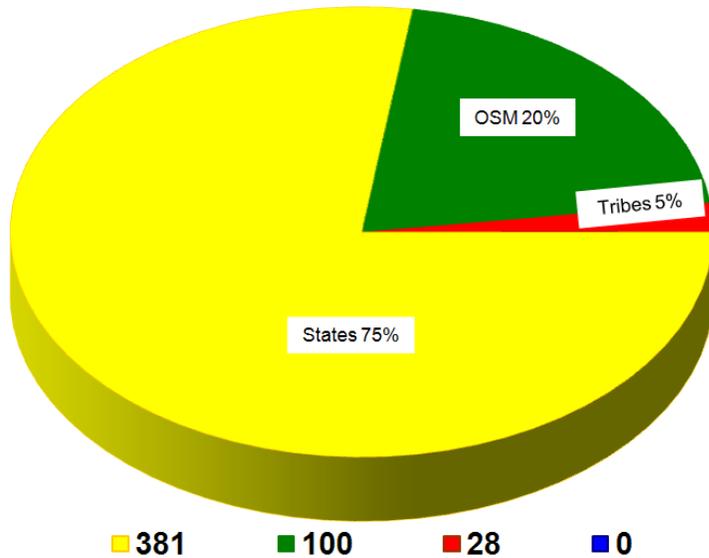
FY 2008 AND FY 2009 Comparison

Number of Offices and Instructors participating for FY 2008			Number of Offices and Instructors participating for FY 2009		
OFFICES	FY 2008 INSTRUCTORS	%	OFFICES	FY 2009 INSTRUCTORS	%
17 State/Tribes Offices	69	41%	17 State/Tribes Offices	78	41%
17 OSM Offices	81	48%	17 OSM Offices	93	49%
1 DOI Solicitor's Office	8	5%	3 DOI Solicitor's Office	10	5%
3 Other Federal Agencies	4	2%	3 Other Federal Agencies	4	2%
5 Other Sources	7	4%	4 Other Sources	6	3%
Total # of Offices 43	Total # of Instructors 169	Total % 100	Total # of Offices 44	Total # of Instructors 191	Total % 100

INSTRUCTORS GRAND TOTALS for FY 2008 AND FY 2009

INSTRUCTORS BY GROUPS	NUMBER OF FY 2008 INSTRUCTORS	NUMBER OF FY 2009 INSTRUCTORS
STATES	69	78
AR	56	63
MCR	10	10
WR	8	9
HDQTRS	7	11
DOI Solicitors	8	10
Other Federal Agencies	4	4
Other Sources	7	6
TOTAL	169	191

FY2009 Program Attendance – NTP Courses Only – 509 Students through 05/08/09



What's New

- Instructor Questionnaire
- Instructor Incentive Program
- Three Year Rotation for Class Revisions
- Follow-up Evaluations thru DOI LEARN
- Field Investigation Course
- Acid-Forming Materials Soils & Overburden
- New Course Manager

Instructor Questionnaire

- How many years have you been teaching NTP and/or TIPS classes?
- How would you rate your experience as Instructor?
- Do you have any specific comments about your teaching experience?
- Which courses have you taught in the past? Are there other courses you'd like to teach in the future?
- What's your general timeframe for retirement?
- Would you be interested in teaching after you retire?
- Is there any other feedback you'd like to give to the training programs?

How Many Years have you been teaching NTP Courses?

NTP COURSES		
OPTION	RESPONSES	PERCENT
Less than 1 year	14	11
1-3 years	27	21
4-6 years	15	12
7-10 years	15	12
More than 10 years	56	44

How many years have you been teaching TIPS Courses?

TIPS COURSES		
OPTION	RESPONSES	PERCENT
Less than 1 year	21	31
1-3 years	23	34
4-6 years	9	13
7-10 years	9	13
More than 10 years	6	9

How would you rate your experience as an instructor?

	Poor 1	2	3	4	5	6	Outstanding 7
Number of Responses (142)	0	0	3	4	21	54	60
Percent of Responses	0	0	2%	2.8%	15%	38%	42.2%

7 = Outstanding (rewarding and valuable)

1 = Poor (unrewarding and unfulfilling)

Succession Planning

	YEARS TO RETIREMENT	
OPTION	RESPONSES	PERCENT
Less than 1 year	3	2%
1-3 years	25	17%
4-6 years	27	19%
7-10 years	35	25%
More than 10 years	48	34%
Other	5	3%

Instructors' Comments

Program Evaluation

- Student-In Class Evaluations
- Follow-up Evaluations:
Students & Supervisors
 - Testing distribution on DOI LEARN
- Course Modifications

Instructor Advisory Council Tasks

Instructor Succession Planning

- Recruitment Brochure
- Succession Planning

--Targeted Contracts

--Develop new staff

Career Series

-- sent to Training Contacts with 2010 Needs Survey

-- will be sent to Program Heads

Incentive Program

--4 tier

Three Year Rotation for Course Revisions

Instructor Incentive Program

- Tier One: Welcome to the Instructor Cadre!
- Tier Two: Service Awards
- Tier Three: Above and Beyond Recognition
- Tier Four: Scholars Program

Inspection Field Course

Two week field oriented class designed for New Field Staff to provide:

- Background on “why” SMCRA
- Essential importance of good documentation skills
- Basic tools of effective observation and documentation
- Introduction to the basic technical components of mining and reclamation

Additional Topics include:

- Potential & actual adverse effects associated with past and current mining operations
- Introduction to report writing, photography, verbal communications, proper evidence gathering and technological tools
- Introduction to hydrology, geology, water testing & sampling, soils, geochemistry, re-vegetation standards & techniques, engineering techniques, and regulatory and contract enforcement techniques.

Acid-Forming Materials:

Soils & Overburden

Course Objective is to upgrade technical skills and current thinking in critical aspects of AFM

Topics covered include:

- Geology/Mineralogy
- Weathering
- Impacts on reclamation planning & mitigation of mine soils and plant systems

FY 2010 NEEDS SURVEY SUBMISSIONS ARE DUE NOW!!!

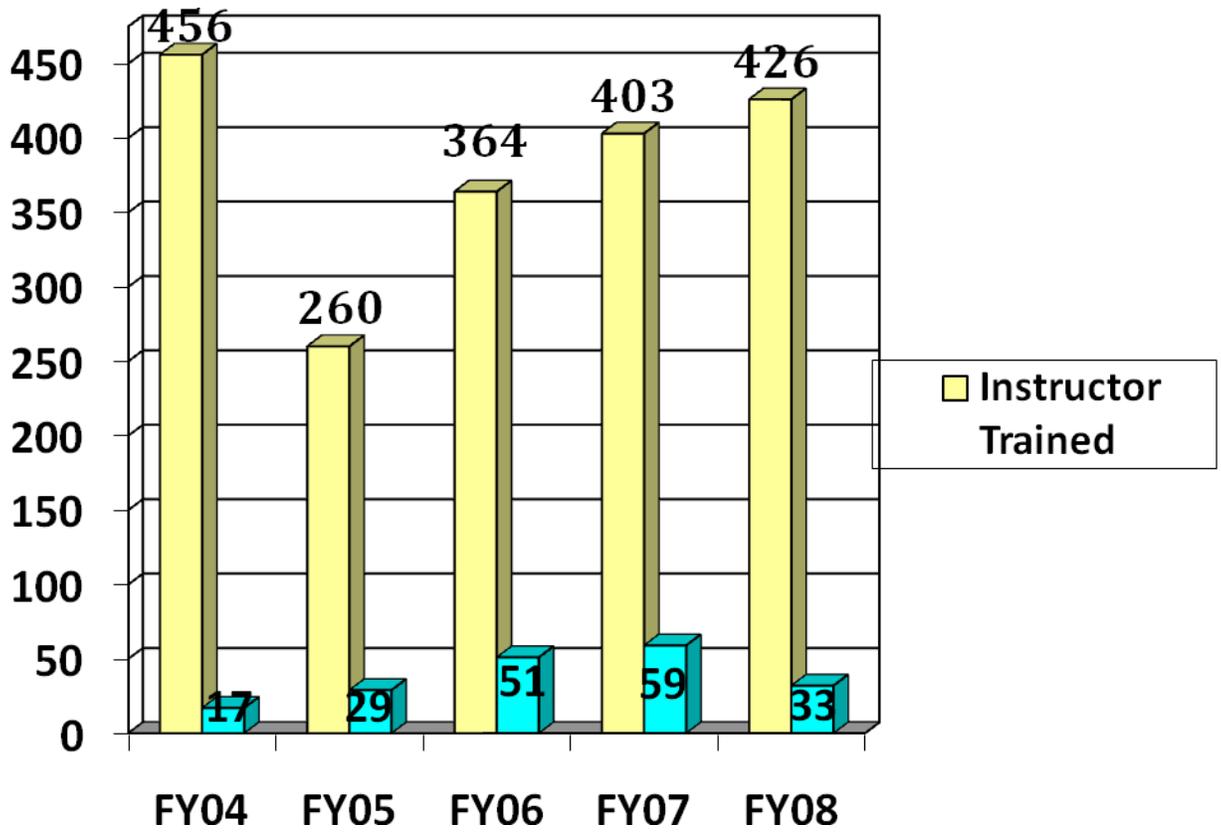
Karyn Evans – TIPS Training Report

Agenda Topics

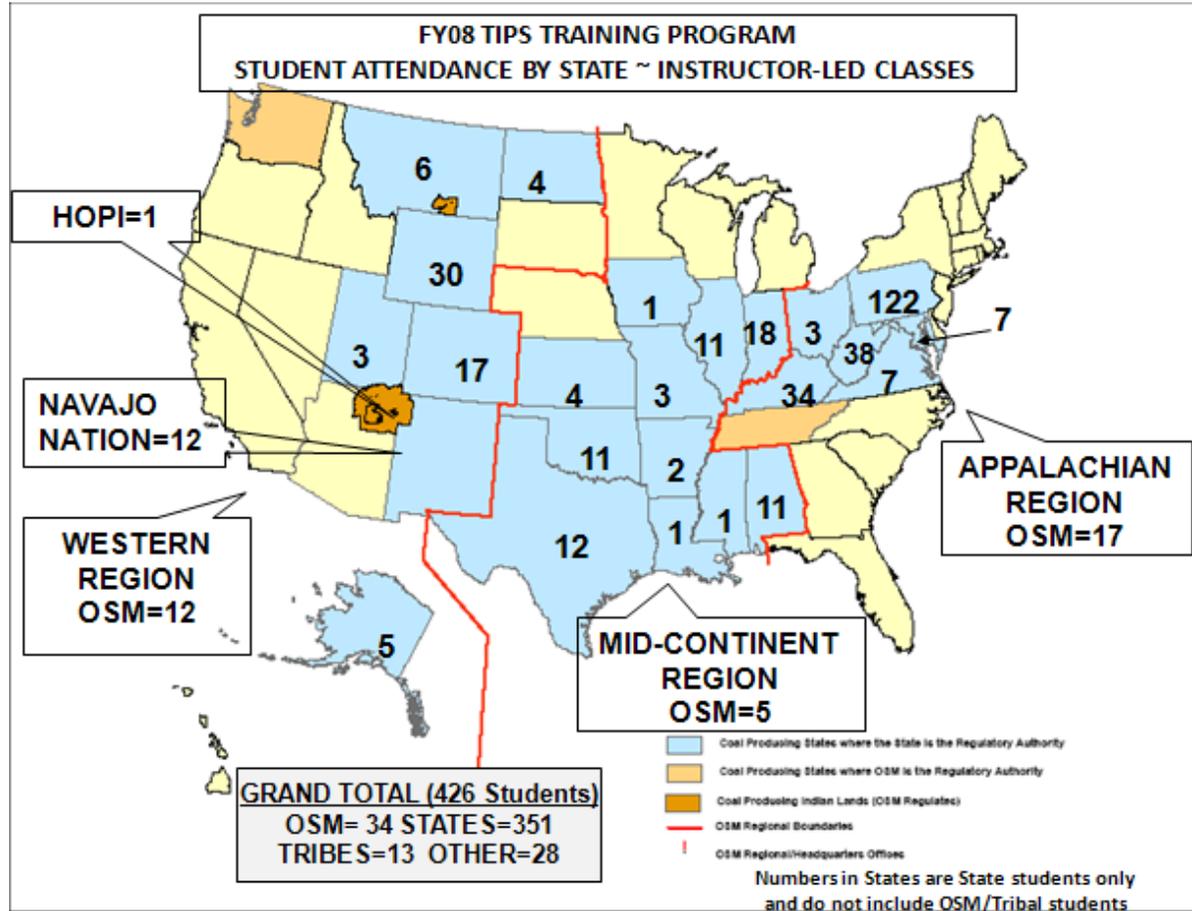
- Training Program Accomplishments
- Training Program Initiatives
- Training Program Challenges

TIPS Student Attendance Instructor-Led and E-Training Classes - FY04-08

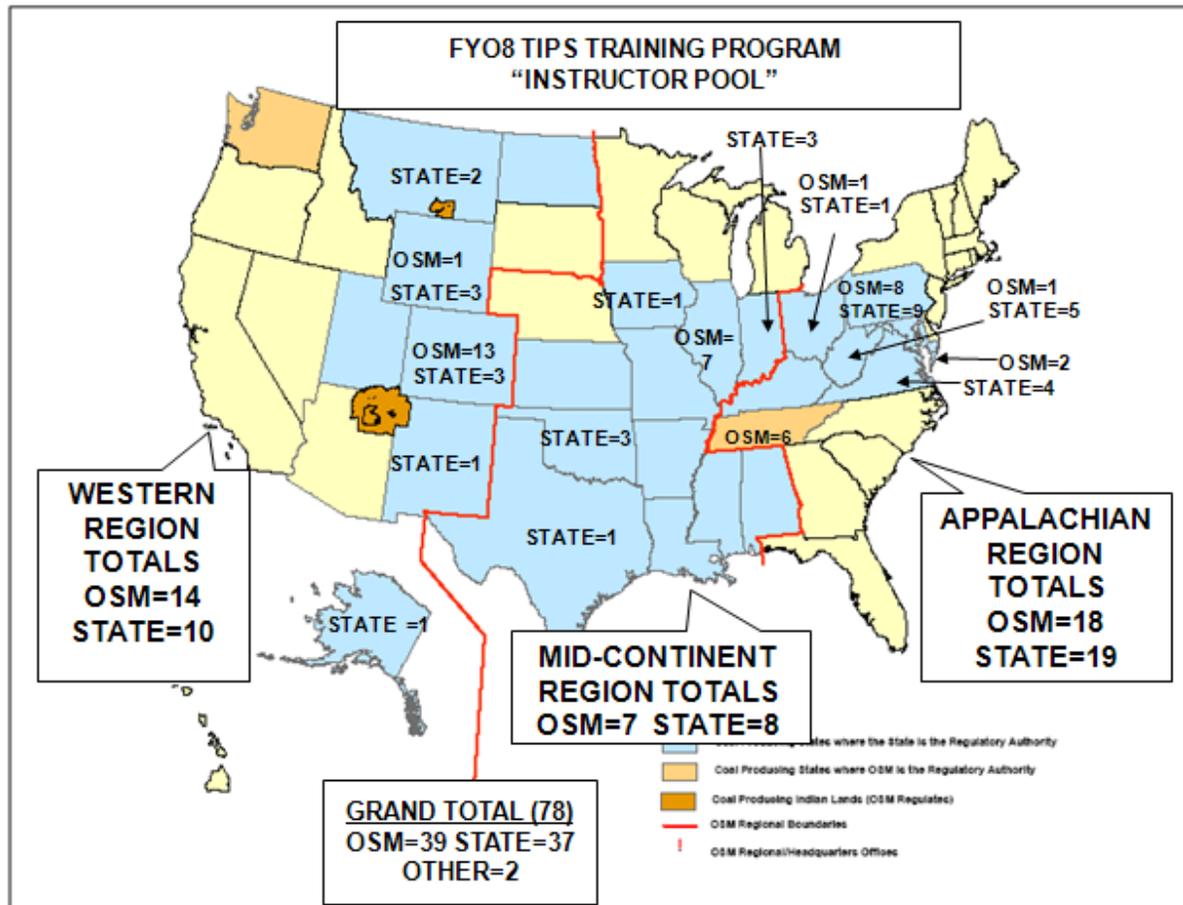
- 426 students attended TIPS classes this past year. TIPS earned a 97% program effectiveness rating in 32 sessions of 17 different courses. Over ½ of the classes were full to capacity.



Student makeup was 82% state staff, 8% OSM staff, 3% tribal and 7% external individuals (other government agencies, coal company staff, etc)



Instructor recruitment going well. TIPS submitted 10 nominations for attendance at ITC this year.



Instructors are needed for:

- AMD Treat
- Galena
- All CAD Courses

We are always adding to our pool of instructors, so please send your referrals our way.

FY08 Accomplishments

- Student Travel for Training (\$312k)
 - 426 students attended 32 TIPS classes; over half of our classes were full
- Course Development (\$12k)
 - Updated 2 courses (ArcGIS 9.2 and SURVCADD)
 - Developed 1 new course (E-Tools for Permitting)
- Advanced Training (\$17k)
 - Sponsored student attendance at 12 Advanced
 - Training courses (includes travel/tuition)
- On-Line Courses (\$2k)
 - 81 students registered for TIPS/ESRI on-line courses; less than half completed their coursework
- Training Supplies & Materials (\$6k)
 - Course binders, marketing items, photocopying, miscellaneous class supplies

Training Program Spent \$347k in FY08

Cost Savings Measures

- Encourage Student Purchase of Non-Refundable Airline Tickets
NON-REFUNDABLE TICKETS: Requesting students purchase non-refundable tickets to be more cost effective, but when student cancellations occur, ticket is in student's name not OSMs. If OSM can use the carrier for the student for another class/meeting, OSM pays a \$150 fee for use of ticket, plus whatever additional costs for new ticket.
- Student Packets Sent via Email
STUDENT PACKETS: Electronic transmission vs. FedEx; striving to get into the hands of students 6 weeks before class
- Write On/Wipe Off Student Tent Cards
TENT CARDS: Saves time on materials (card stock, ink) and training coordinator time as well.

Process Improvements

- Transitioned to NTTP Processes for Travel
Travel processes mirror NTTPs, resulting in manpower reduction by students making their own travel arrangements. Also, blocking hotel rooms so students do not have this out of pocket expense.
- Transitioned to GovTrip for Travel
Processing travel vouchers in govtrip is quicker than past methods; have received positive feedback from travelers.
- Increased Communication with Training Contacts
Have held two conference calls with state/tribal/OSM training contacts to discuss TIPS processes and share information; NTTP participated in the last call. Cc:ing training contacts on all correspondence to students

FY09 Training Program Initiatives

- Piloting Being a Registered Provider for Professional Development Hours (PDH) on TIPS Engineering Courses
TIPS is piloting a program with the Illinois Society of Professional Engineers to be a registered provider for Professional Development Hours for our Engineering courses; PDH's on course completion certificate; \$500/annually for TIPS, but no cost to student. Can be used for engineering recertification purposes.
- Piloting Dual Monitors in Appalachian Training Room
Purchased dual monitors for AR training room; goal is to reduce cost/manpower associated with course duplication; student receives CD with course manual and displays on monitor; can print manual at home if interested. Goal is to purchase dual monitors for all three Regions.
- Leading OSM-wide Team to Recommend Video Conferencing Technology
VIDEO CONFERENCING: Team Leader for OSM videoconferencing team; will provide recommendations to CLT for video conferencing options OSM-wide. Goal is to use for delivery of training and collaborative meetings, thus reducing travel expenses.

FY09 Current Information

32 students have completed eLearning courses to date

Two courses being developed: Bridging the CAD and GIS Gap; ProXRT

Two courses being updated: Advanced SurvCADD and ArcPad7

- 41 Classes on TIPS Training Schedule
- 480 Students Registered in TIPS ILT Classes
- 49 Students Registered in eLearning Classes
- 2 TIPS Courses Currently Being Developed
- 2 TIPS Courses Currently Being Updated

FY09 On-site Classes

Increase in requests for on-site classes; have delivered 9 to date and 8 on class schedule. Some requests are due to travel limitations, but many are due to large amount of employees in one area needing class.

Delivered a Garmin class in Prairie View, TX for a MCR Minority Higher Education Program University, and scheduled a ProXRT Workshop on SIPI campus, a WR Minority Higher Education Program.

17 Classes Scheduled and/or Delivered

- IL (AutoCAD Fundamentals, SEDCAD, Advanced AutoCAD)
- KY (AutoCAD Fundamentals)
- OH (SEDCAD, AMD Treat)
- OK (Garmin)
- PA (AutoCAD Fundamentals, (6) Garmin)
- WV (AutoCAD Fundamentals)

FY09 Additional Class Requests

Currently In Process

- KY (Intro to ArcGIS)
- PA (BLEP)
- WV (AMD Treat)
- WY (E-Tools for Permitting)
- Charleston Field Office (ArcPAD)

Specialized Training

- Earthvision
- ER Mapper
- Geochemist Workbench
- SDPS Enhancements

Training Program Challenges

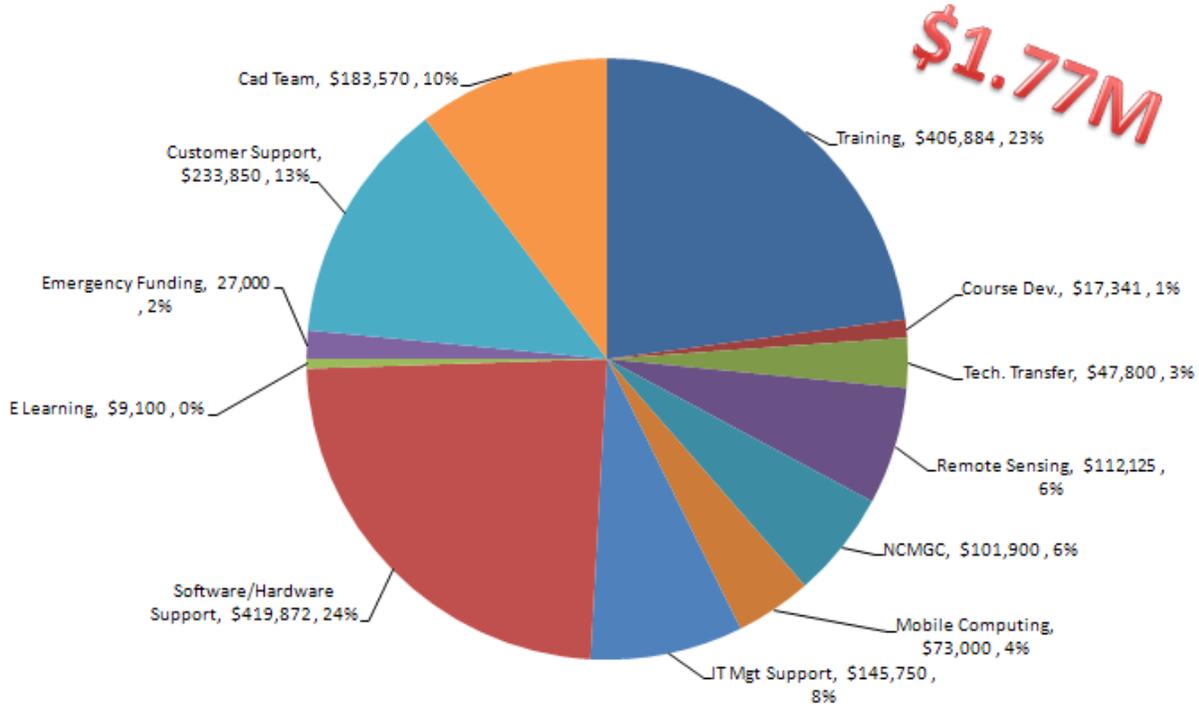
- State Travel Restrictions
IN, VA, PA, IL, TX have state travel restrictions limiting the ability of our instructors to travel to teach. This is creating a shortage of instructors, specifically in CAD classes.
- Delivery of On-Site Classes in Timeframe Requested
States requesting delivery of on-site classes with only two months lead time
- Student Failure to Cancel Hotel Rooms
Students cancelling out of classes at last minute, and not notifying the hotel; TIPS has to pay for one night lodging. Notifying supervisor for their information.

Resources Available

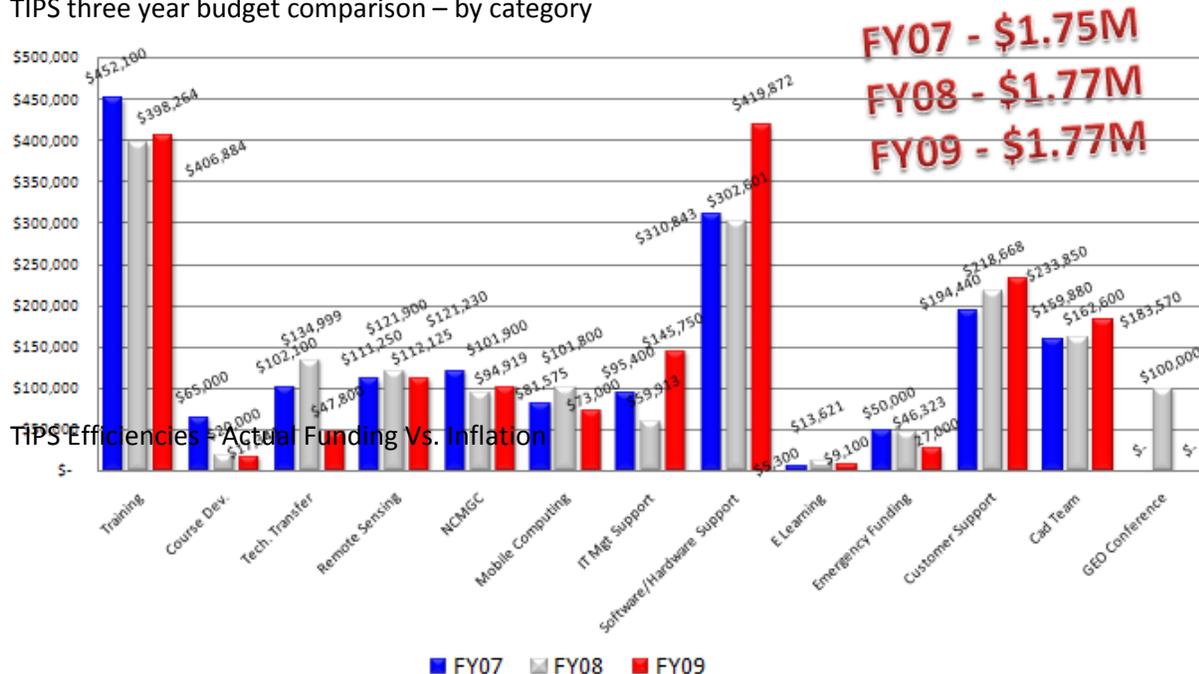
- Automated Resources on the TIPS Training website www.tips.osmre.gov/training
 - TIPS “Year at a Glance” Class Schedule
 - NTT Catalog
 - Career Series Guide
 - eLearning Resource Guide
 - Instructor Recruitment Pamphlet
- Contact Karyn or Jessica with questions

Steve Trujillo – Budget Report

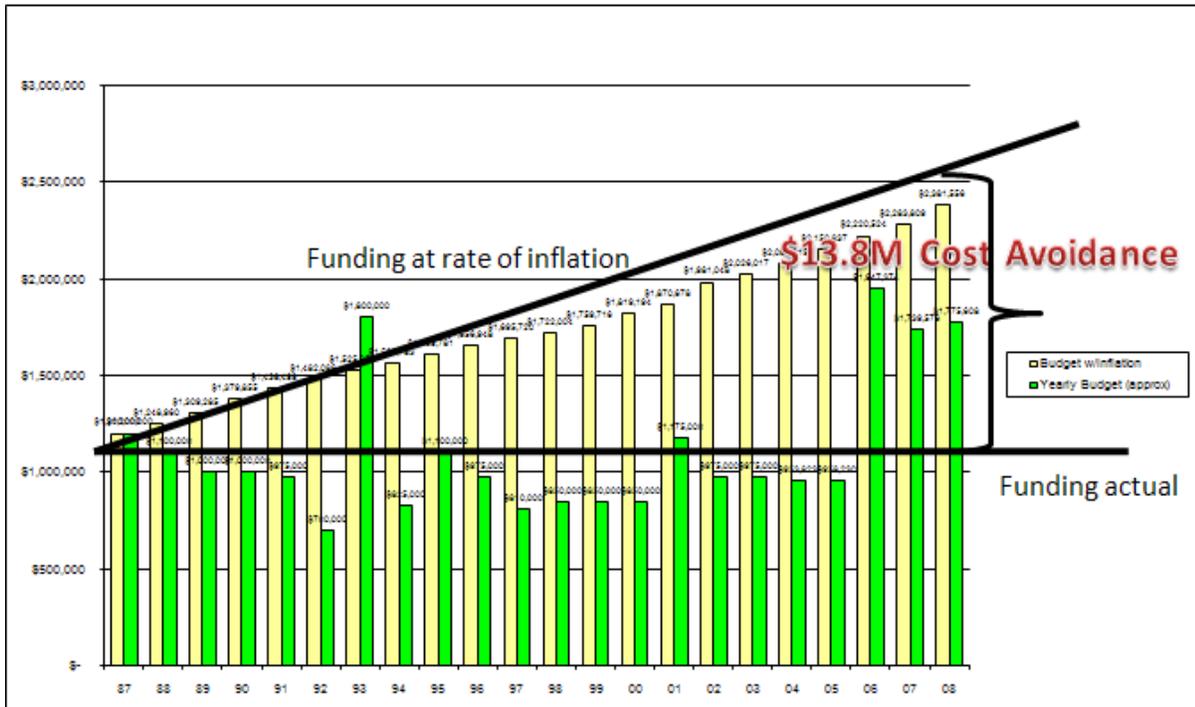
FY09 Budget By Category



TIPS three year budget comparison – by category



TIPS Efficiencies = Actual Funding Vs. Inflation



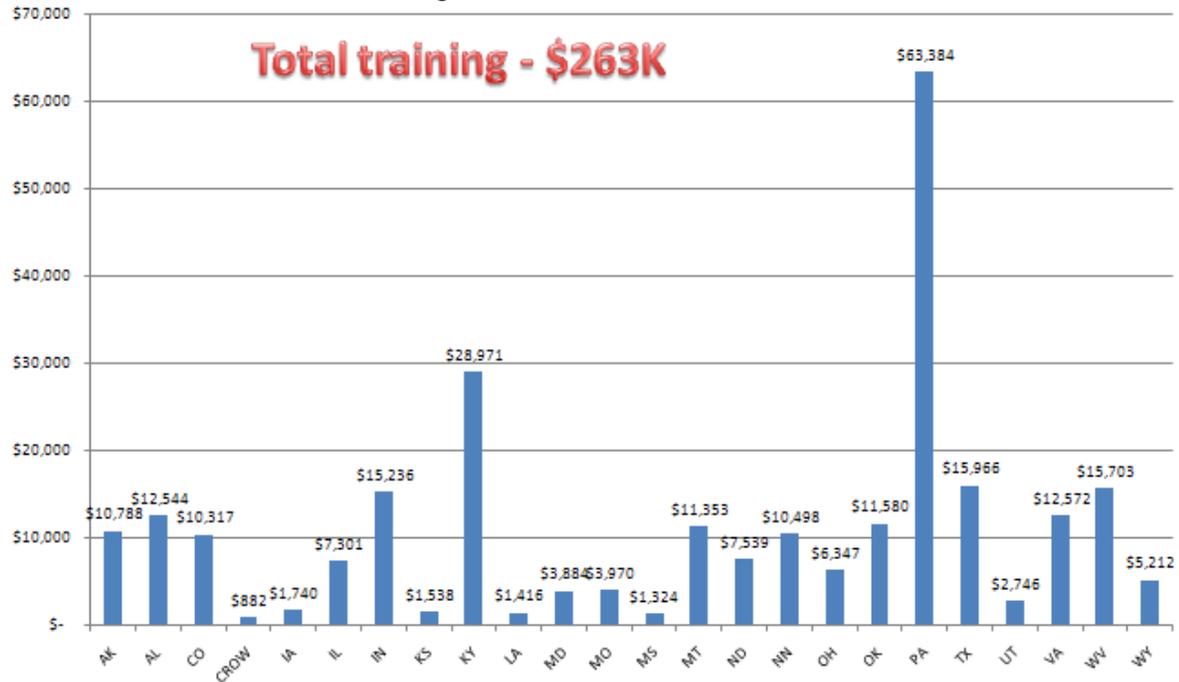
Financially speaking – What was TIPS worth to states and tribes?

- Recorded travel by States, Tribal personnel
 - Instructors/students/meeting participants
 - Excluded OSM travelers
- Captured costs for training and other travel
- No payroll costs were calculated
- Time frame from Oct 08 through Sept 09

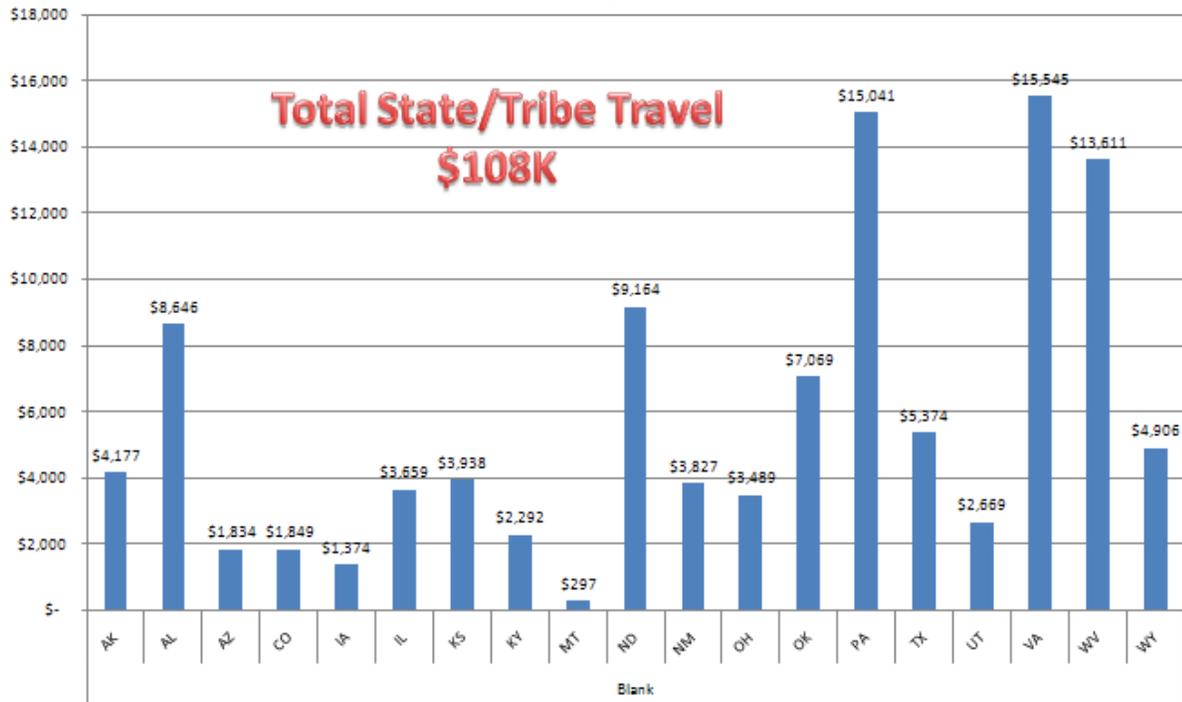
FY08 Total Travel Costs for States and Tribes



FY08 Travel States/Tribes For Training



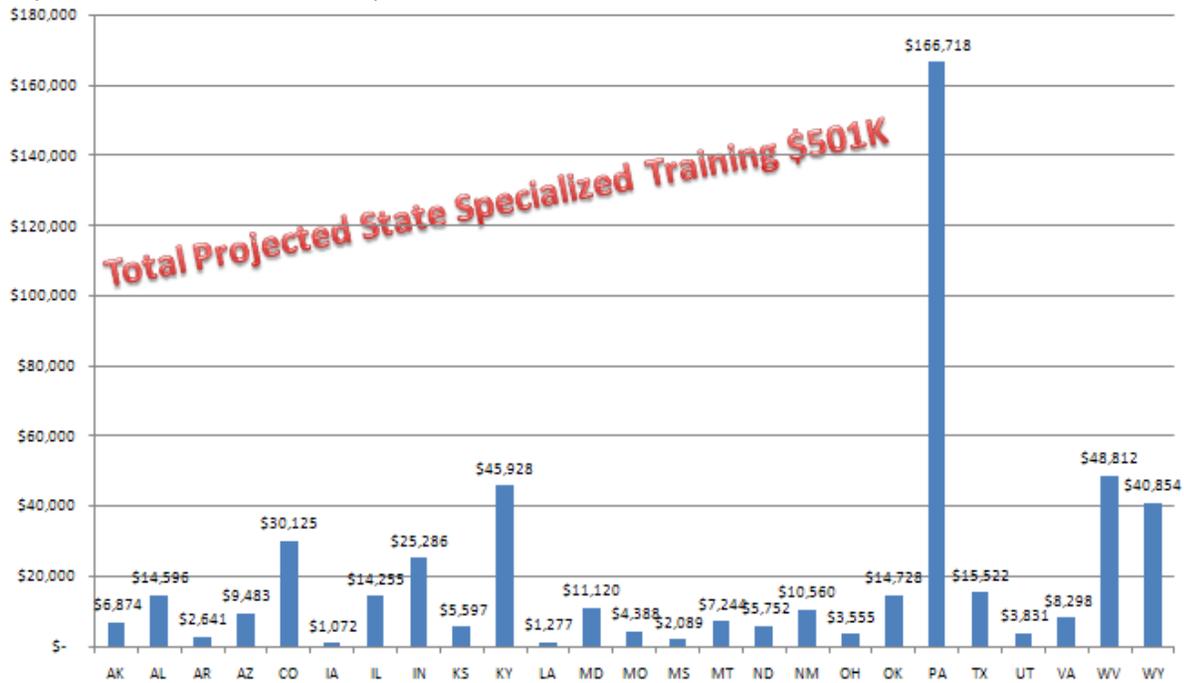
FY08 Travel States/Tribes Operations - Non Training



State/Tribal Projected Training Costs Assumptions (Conservative)

- Vendor has “canned” class available
 - Premium of \$150.00 per hr. to make Title IV & V appropriate
 - Two day classes 24 hours to convert
 - Three day classes 32 hours to convert
- State and Tribal cost based on type and number of classes taken in FY08
- No Travel costs involved

Projected Cost of State / Tribe Specialized Tuition



How do we compare to vendor training?

TIPS - Training

- Training Travel -
 - State / Tribes - \$263.K
 - OSM - \$60.K
 - Total: \$323K**
- Course Development - \$36.5K
- FY08 TIPS Training Cost: \$359.5K**
- Est. Payroll (instructors) - \$55.5K

Est. Total TIPS Training Cost: \$415.K

Vendor - Training

- Estimated Specialized Training
 - State / Tribe - \$501.K
 - OSM - \$53.K
 - Total: \$554K**
- State Travel Costs - \$263.K
- OSM Travel Costs - \$60.K
- Est. Total Cost: \$873.K**

Difference: \$458K cost avoidance

Conservatively

The Bottom Line:

For every \$1 we spend - we avoid approx. \$2.10

Steering Committee – Nashville, TN
Wednesday, May 20, 2009

Bill Card – Geospatial Activities – National Coal Mining Geospatial Committee (NCMGC)

Member	Organization	Representing
Bill Card	OSM Knoxville Field Office	OSM Appalachian Region
Larry Evans	WV Department of Environmental Protection	Interstate Mining Compact Commission (IMCC)
Kwang (Min) Kim	OSM Mid-Continent Regional Office	OSM Mid-Continent Region
Doug Mullins	VA Department of Mines, Minerals and Energy	National Association of Abandoned Mine Land Programs (NAAMLPL)
Alan Wilhelm	OSM Western Regional Office	OSM Western Region
Deb Bell	CO Division of Minerals and Geology	Western Interstate Energy Board (WIEB)
Li-Tai Bilbao	OSM Headquarters	OSM Headquarters
Mike Sharp	Oklahoma Conservation Commission	National Association of Abandoned Mine Land Programs (NAAMLPL)

Eight member committee chartered to promote the use of geospatial technology to help implement SMCRA. Members represent the coal mining geospatial interests of the states and tribes participating in the Interstate Mining Compact Commission (IMCC), National Association of Abandoned Mine Lands Programs (NAAMLPL), the Western Interstate Energy Board (WIEB), three OSM regions, and OSM Headquarters.

Promoting Geospatial Technology To Help Implement SMCRA:

- Increase awareness of value of coal mining spatial data
- Establish a network of SMCRA Spatial Data Stewards
- Hold national meetings of Data Stewards
- Develop voluntary standards for coal mining spatial data
- Train Data Stewards in standards
- Fund vendor training in enterprise spatial data management
- Recruit SMCRA organizations
- Support small programs needing assistance
- Conduct outreach via professional organizations
- Recognize approved state programs as Authoritative Data Source (ADS)
- Determine status and needs of SMCRA organizations through questionnaires
- Encourage development of Geospatial Plans

42 SMCRA Geospatial Data Stewards – as of January 22, 2009

SMCRA Geospatial Data Stewards are designated by the management of their respective SMCRA organization to represent at a national level the coal mining geospatial needs of their SMCRA organization.

SMCRA Organization	Geospatial Data Steward(s)
Alabama	Randall Johnson & Michael Vinson
Alaska	Russell Kirkham
Arkansas	James Stephens
Colorado	Deborah Bell
Hopi Tribe	Norman Honie
Illinois	Ray Druhot
Indiana	Jim Metzger
Iowa	Todd Coffelt
Kansas	Fred Foshag
Kentucky	Daryl Hines & Robert Cammack
Louisiana	Dale Bergquist
Maryland	Al Hooker
Mississippi	Peter Hutchins
Missouri	Jerry Wilkinson
Montana	Chris Bardash & John Koerth
Navajo Nation	Lawrence Benally & John Stucker
New Mexico	Linda DeLay
North Dakota	Bruce Johnson
Ohio	Kathy Rossmann
Oklahoma	Mike Sharp & Goran Radinovic
OSM Appalachian RO	Bob McKenzie
OSM Mid-Continent RO	Kwang Kim
OSM Western RO	Alan Wilhelm
OSM Big Stone Gap AO	Harry Morris
OSM Casper FO	Alan Boehms
OSM Charleston FO	Tom Galya
OSM Knoxville FO	Jo Gault
Pennsylvania	Joe Taranto, Robin Lighty, Scott Barnes
Texas	Mark Schlingen & Jon Brandt
Utah	Daniel Smith
Virginia	Daniel Kestner
West Virginia	Larry Evans
Wyoming	Chad Kopplin & Marcelo Calle

FY2009 Accomplishments

- Annual meeting, April 22-23, 2009
- 2009 Questionnaire – SMCRA Geospatial Technology Development Status
- Coal Mining Spatial Data Standards ASTM Task Group – 3 meetings
- Training Program – 40 classes
(FY09 = 11, FY08 = 6, FY07 = 23)
- Public Outreach Program – 9 events
Reaching out to SMCRA organizations with opportunities to understand the services and offerings of the NCMGC

- Recruitment Program – TBD
Enlisting SMCRA organizations to start development of coal mining geospatial data management capability
- Small Programs Assistance – TBD
Helping less capable SMCRA organizations increase existing coal mining geospatial data management capabilities

FY09 Outreach Targets

Function	Presenter	Date
OSM Geospatial Meeting, Denver, CO	Bill Card	October 29, 2008
OSM Management Geospatial Strategic Planning Meeting, Washington, DC	Bill Card Min Kim	February 17, 2009
West Virginia Water Forum on Statewide Water Sampling Programs, Morgantown, WV	Larry Evans	March 17, 2009
Mine Drainage Task Force Symposium, Morgantown, WV	Larry Evans	March 31, 2009
IMCC Coal Committee, Anchorage, AK	Larry Evans	April 26, 2009
TIPS Steering Committee, Nashville, TN	Bill Card	May 20, 2009
Western Region Technology Transfer (WRTT) Meeting at ASMR Conference	Bill Card Tom Galya	June 2, 2009
WIEB Reclamation Committee Annual Meeting, Denver, CO	Deb Bell	No date set.
National Association of State Land Reclamationists (NASLR), Gatlinburg, TN	Doug Mullins Mike Sharp	September 20-23, 2009
NAAML 2009 Annual Conference, Rogers, AR	Doug Mullins Mike Sharp	September 27, 2009

FY 09 NCMGC Budget Status

Other FY 2009 Activities

- *Analyzing 2009 Questionnaire results*
- *Coordination with OSM on Geospatial Strategic Plan (GSP)*
- *Begin planning for next national meeting of SMCRA Geospatial Data Stewards*
- *Encourage MSHA to participate in coal mining spatial data*

FY 2010 New Activities

- 3rd National Meeting of SMCRA Geospatial Data Stewards in 2010
 - Mid-Continent Region to host meeting
- National meeting to include workshop
- Workshop include training in data standards, programmatic application of coal mining spatial data, etc.

FY 2011-12 New Initiatives

Initiatives of process review and re-engineering

- Custom field GIS to support e-Inspection
 - ArcObjects-based
 - ArcGIS Engine or ArcGIS Mobile (SDK of ArcGIS Server)
- In-office GIS-enhanced business applications
 - automation of environmental data from industry (e-Forms in e-Permitting)
 - analysis of permit applications using GIS data

Coal Mining Spatial Infrastructure Prototype

Purpose was to test feasibility of real-time collection and aggregation of selected coal mining geospatial data (permit boundaries).

- Phase 1 – Inside the OSM WAN. Successfully completed on August 13, 2006.
- Phase 2 – Outside the OSM WAN, through the Internet. Successfully completed on February 1, 2008

VA and WV Participants in Phase 2

Virginia DMME

- Daniel Kestner
- Steve Mullins
- David Sanders
- Vic Palmer
- Todd Richardson

West Virginia DEP

- Larry Evans
- Mike Shank
- Sarah Clapham

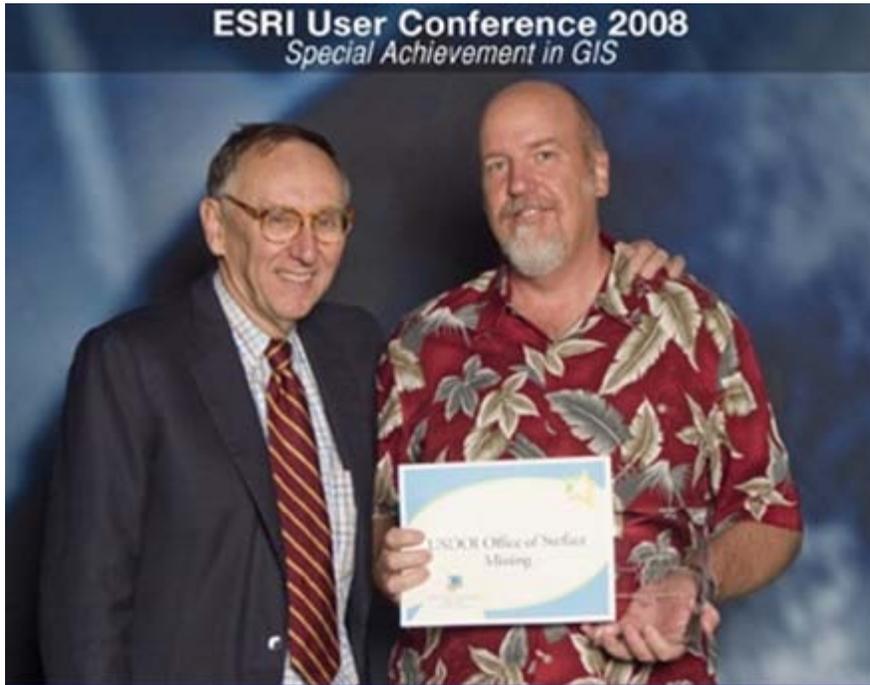
Special Achievement in GIS (SAG) Award from ESRI

Primary workers were Greg Morlock and Alan Wilhelm:

- Greg Morlock replicated ArcGIS Server geodatabases to allow data collection.
- Alan Wilhelm used Extract, Load, Transform (ELT) scripting to process geospatial data into single dataset.

First SAG award to SMCRA organization

Only SAG award given in 2008 to DOI organization



Coal Mining Spatial Data Standards ASTM Task Group
Coal Mining Surface Boundary

Why Coal Mining Spatial Data Standards?

- Accurately describe coal mining features
- Promote understanding and use of coal mining spatial data
- Ensure compatibility of coal mining spatial data among state and federal programs
- Form consistent regional and national datasets describing coal mining features
- Improve accuracy of derived information products



Designation: D 7384 – 07

**Standard Practice for
Minimum Geospatial Data for a Coal Surface Mining Permit
Boundary¹**

Approved – September 1, 2007

1. Scope

1.1 This practice covers the minimum elements for the accurate location and description of data for defining a coal surface mining permit boundary.

1.1.1 This practice addresses coal mining geospatial data relative to the Surface Mining Control and Reclamation Act of 1977 (SMCRA).² This geospatial data shall be obtained from each state or federal, or both, coal mining Regulatory Authority (RA) authorized under SMCRA to regulate coal surface mining operations (CSMO). Each RA shall be the authoritative data source (ADS) for coal mining geospatial data.

1.1.2 As used in this practice, a coal surface mining boundary represents an area where coal removal and reclamation has occurred or is occurring within a defined CSMO.

1.2 This practice is limited to coal surface mining operations after passage of SMCRA.

2. Referenced Documents

2.1 *ASTM Standards:*³

D 653 Terminology Relating to Soil, Rock, and Contained Fluids

D 5254 Practice for Minimum Set of Data Elements to Identify a Ground-Water Site

D 5911 Practice for Minimum Set of Data Elements to Identify a Soil Sampling Site

2.2 *ANSI Standards:*⁴

ANSI INCITS 61-1986 (R2002) Geographic Point Locations for Information Interchange, Representation of (formerly ANSI X3.61-1986 (R1997))

ANSI INCITS 320-1998 (R2003) Information technology—Spatial Data Transfer

2.3 *Federal Geographic Data Committee Standards*⁵

FGDC-STD-001 Content Standard for Digital Geospatial



Standard Practice for Minimum Geospatial Data for Underground Coal Mining Extents¹

This standard is issued under the fixed designation D 7443; the number immediately following the designation indicates the year of

Approved – April 1, 2008

1. Scope

1.1 This practice covers the minimum elements for the accurate location and description of data for defining underground coal mining extents.

1.1.1 This practice addresses coal mining geospatial data relative to the Surface Mining Control and Reclamation Act of 1977 (SMCRA).² This geospatial data shall be obtained from each state, tribal, or federal (or combinations thereof) coal mining Regulatory Authority (RA) authorized under SMCRA to regulate the surface effects of underground coal mining operations (UCMO).

1.1.2 As used in this practice, underground coal mining extents represent an area where coal removal has occurred within a defined UCMO.

1.2 This practice applies to pre-SMCRA and post-SMCRA underground coal mining extents.

2. Referenced Documents

2.1 ASTM Standards:³

D 653 Terminology Relating to Soil, Rock, and Contained Fluids

D 5254 Practice for Minimum Set of Data Elements to Identify a Ground-Water Site

D 5911 Practice for Minimum Set of Data Elements to Identify a Soil Sampling Site

D 7384 Practice for Minimum Geospatial Data for a Coal Surface Mining Permit Boundary

2.2 ANSI Standards:⁴

ANSI INCITS 61-1986 (R2002) Geographic Point Locations for Information Interchange, Representation of (formerly ANSI X3.61-1986 (R1997))

ANSI INCITS 320-1998 (R2003) Information technology-Spatial Data Transfer

Coal Mining Spatial Data Standards ASTM Task Group

- Tom Galya (Co-Chair) – OSM Charleston Field Office
- Daniel Kestner (Co-Chair) VA Department of Mines, Minerals and Energy
- Alan Wilhelm – OSM Western Region Office
- Joe Taranto – PA Department of Environmental Protection
- Daryl Hines – KY Division of Mine Permits
- Arielle Avishai – OSM Appalachian Region Office
- Greg Jones – Peabody Western Coal Company
- Robert Hughes – Lucerne PA Conservation District
- Tara Shifflett – OSM Headquarters
- Todd Coffelt – IA Mines and Minerals Bureau
- Karen Jass – OSM Western Region Office
- Mike Shank – WV Department of Environmental Protection
- Bruce Johnson – ND Public Service Commission
- Jo Gault – OSM Knoxville Field Office
- Kathy Rossmann – OH Division of Mineral Resources Management
- Tim Browning – DR Allen and Associates – Abingdon, VA
- Joe Ritchey, Facilitator for the American Society of Testing Materials (ASTM) process
- Julie Maitra, Liaison for the Federal Geographic Data Committee (FGDC) process
- Sandin Phillipson, Advisor, Mine Safety and Health Administration (MSHA)

Data Standards Task Group Meetings in FY 09

- October 21-22, 2008 – Salt Lake City, UT
- January 27-28, 2009 – Atlanta, GA
- May 12-14, 2009 – San Antonio, TX

Title 5 Regulatory Program Datasets Approved by Data Stewards

Title 4 and Title 5 coal mining spatial datasets approved by SMCRA Geospatial Data Stewards for standards development on March 26, 2008 during the 2nd National Meeting of SMCRA Geospatial Data Stewards at OSM Geospatial Conference in Atlanta, GA.

(The Title 4 and Title 5 lists were compiled by Bill Card in FY 2008 after soliciting suggestions from SMCRA Geospatial Data Stewards. A large number of suggested datasets was categorized and summarized into a spreadsheet from which these common data themes emerged as those most requested. These themes were then reviewed by the NCMGC and presented to the SMCRA Geospatial Data Stewards in Atlanta for discussion and approval.)

- Bonded Areas
- Disturbed Areas
- Forfeited Mine Areas
- Post Mining Land Use
- AMD Inventory
- AMD Treatment Facilities
- Critical Earth Fills
- Water Monitoring Locations
- Lands Unsuitable for Mining Petition (LUMP) Areas
- Lands Unsuitable for Mining (LUM) Areas
- Land Reclamation Status

Title 4 AML Program Datasets Authorized by Data Stewards

- AML Planning Units (PU)
- AML Problem Areas (PA)
- AML Inventory Features
- AML Project Sites

Standards Development

- ASTM Standard > FGDC Recommendation
The FGDC policy can be found at
http://www.fgdc.gov/standards/standards/standards_publications/Non-FGDC_StandardsSpecs_Policy.pdf
- OSM FY09 Goal 53 – Coal Mining Spatial Data Standards

Status of OSM Goal 53

By October 1, 2009

- FGDC Recommendation (exceed Goal 53):
 - Coal Surface Mining Boundaries
 - Coal Underground Mining Boundaries
- ASTM Standards (possibly also FGDC):
 - AML Planning Units
 - AML Problem Areas

Other Standards in Development
To Be Completed In FY 2010

- Title 5
 - Bonded Areas
 - Post Mining Land Use
 - Critical Earth Fills
 - Lands Unsuitable for Mining
 - Lands Unsuitable for Mining Petition Areas
 - Land Reclamation Status

Remaining Title 5 Standards

- Disturbed Areas (in Land Reclamation Status)
- Forfeited Mine Areas (in Coal Surface Mining Boundaries)
- In 2010-11:
 - AMD Inventory
 - AMD Treatment Facilities
 - Water Monitoring Locations

Remaining Title 4 Standards

Team Progress

- Team progress tracked in spreadsheet
- Will be meeting with FGDC in FY09
- Completion of draft for all standards by 2012

In 2010-2011:

- AML Inventory Features
- AML Project Sites

Coal Mining Spatial Data Themes

Title 5 – Disturbance Areas

The list of potential coal mining spatial datasets was compiled by Bill Card based on responses from NCMGC members in an effort to help determine:

- possible extent of coal mining data themes useful among SMCRA organizations in implementing SMCRA
- extent of work to be done by the Coal Mining Spatial Data Standards ASTM Task Group

SMCRA Dataset	Quick Description	ASTM Standard
<i>Permit boundaries, approved</i>	<i>Boundaries of last approved permitted area</i>	<i>Coal Surface Mining Boundaries</i>
<i>Permit boundaries, proposed</i>	<i>Boundaries of proposed changes to last approved permitted area</i>	<i>(none)</i>
<i>Bonded areas</i>	<i>Boundaries of last approved bonded area</i>	<i>Coal Bonded Areas</i>
<i>Non-bonded areas</i>	<i>Boundaries within the permit area which are not bonded</i>	<i>(none)</i>
<i>Cut sequence</i>	<i>Boundaries of last approved cut sequences</i>	<i>Coal Disturbed Areas</i>

<i>Auger areas</i>	<i>Boundaries of last approved auger areas</i>	<i>(none)</i>
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SMCRA Dataset	Quick Description	ASTM Standard
Underground mining extents	Boundaries of maximum extent of underground coal mining	Coal Underground Mining Boundaries
Underground mining entry	Point location of entry to underground coal mine	(none)
Blasting	Boundary of blasting area	(none)
Fills	Boundaries of last approved critical earth fills	Coal Critical Earth Fills
Haul roads	Boundaries of last approved haul roads	(none)
Dams	Boundaries of dams to be placed on National Inventory of Dams	(none)
Basins	Boundaries of last approved sediment basins	(none)

Title 5 – Environmental Monitoring

SMCRA Dataset	Quick Description	ASTM Standard
Geologic drill hole locations	Point locations of last approved geologic drill holes	(none)
Surface water monitoring locations	Point locations of last approved surface water monitoring points	Coal Water Monitoring Locations
Groundwater monitoring locations	Point locations of last approved groundwater monitoring points	Coal Water Monitoring Locations
NPDES outfall locations	Point locations of last approved NPDES discharge monitoring points	Coal Water Monitoring Locations
Rainfall Gage Locations	Point locations for rainfall monitoring at active surface mines	(none)
AMD treatment facilities	Point locations of last approved AMD treatment facilities	Coal AMD Treatment Facilities

Title 5 – Reclamation Status

Creating standards for coal mining geospatial datasets is one of the steps in building a Coal Mining Spatial Data Framework.

SMCRA Dataset	Quick Description	ASTM Standard
Backfilled and regraded areas	Boundaries of areas which have been backfilled and regraded	(none)
Topsoil redistribution areas	Boundaries of areas where topsoil has been redistributed	(none)
Revegetation areas	Boundaries of areas which have been revegetated	(none)
Vegetation type	Boundaries of vegetation by type (rangeland, cropland, shrub concentration areas, etc.)	(none)
Revegetation by year	Boundaries of revegetated areas by year seeded/planted	(none)
Revegetation sampling blocks	Boundaries of revegetated areas within a given sampling area	(none)

SMCRA Dataset	Quick Description	ASTM Standard
Landuse	Boundaries of approved landuse boundaries	(none)
AOC Variance areas	Boundaries of areas with variance from Approximate Original Contour (AOC) reclamation requirements	(none)
Forestry Reclamation Approach (FRA) areas	Boundaries of last approved areas for reclamation to support Forestry Reclamation Approach (FRA)	(none)
Bond release request areas by phase	Boundaries of areas requested for each phase of bond release	(none)
Bond releases approved by phase	Boundaries of areas approved for bond release, and which phase approved	(none)
Temporary cessation	Boundaries of areas approved for temporary cessation of operations	(none)

Title 4 – Abandoned Mine Land

In FY 2009, NCMGC will refine this list by consultation with the SMCRA Geospatial Data Stewards and Coal Mining Spatial Data Standards ASTM Task Group. Recommendations will be made by NCMGC at 3rd National Meeting of SMCRA Geospatial Data Stewards in FY 2010 for approval by Data Stewards.

SMCRA Dataset	Quick Description	ASTM Standard
AML Planning Unit (PU)	Boundaries of AML planning units	In progress
AML Problem Areas (PA)	Boundaries of AML problem areas	In progress
AML Inventory Features	Point locations of AML inventory features	(none)
AML Project Sites	Boundaries of AML project sites	(none)

Action Item: The TIPS Steering Committee acknowledges that there is a need for the delivery of coal mining data in a national framework. This initiative is important enough to warrant a separately funded program under OSM. Until such time as the initiative becomes its own program, TIPS should continue to sponsor the initiative. (p. 29)

NCMCG Recommendations

1. Create a National Coal Mining Spatial Data Framework
2. NCMGC have a role in Framework
3. States and Tribes provide spatial data as the Authoritative Data Source (ADS) to the Framework
4. Continue development of voluntary coal mining spatial data standards in accordance with ASTM and FGDC
5. Coordinating body to oversee Framework and provide continuing review.
6. Adoption of the NCMGC recommended Mission and Vision statements
7. Promotion of Framework among state program leads
8. Use existing resources to implement recommendations
9. Strategy to meet minimum coal mining geospatial capability
10. By 2012, new resources be allocated for continuing development to fully establish Framework

Coal Mining Spatial Data Framework

A collaborative, SMCRA community-based effort in which commonly needed coal mining data themes are developed, maintained, and integrated by the Authoritative Data Source (ADS) within a geographic area. The framework is designed to facilitate production and use of coal mining geographic data, to reduce costs, and to improve service and decision-making. The framework is a way to share resources, improve communications, and increase efficiency.

The framework consists of:

- Data,
- Procedures and technology for building and using the data, and
- Institutional relationships and business practices that support the framework environment.

Appalachian Regional Constituent Report Panel

Joe Taranto (PA, MD, OH)

Larry Evans (WV, VA)

Carl Campbell (KY, IL, IN)

Joe –

- Major budget cuts curtail what our states can accomplish.
- The states couldn't do what we do without TIPS.
- Maryland needs SDPS Training and earthVision Training.
- States like the change to electric travel system.

Carl –

- John Rickerson from Indiana he had nothing but kind words for OSM, NTTP, Sarah, as well as the TIPS program and wanted the committee to know how essential these programs are to the smaller state programs. The hardware and software that Indiana has received from OSM has been invaluable to Indiana and has allowed them to keep up with the nations coal industry and with the importance of these programs it is essential that OSM obtain the same level of assistance to Kentucky that goes for Illinois too.
- Items that need to be replaced is a large format plotter it is heavily used by the folks in Indiana DNR staffs.

Larry –

- Budget Issues and short of staff.
- Training is never a problem we receive first class training for our West Virginia folks.”

Western Regional Constituent Report Panel

David Berry (CO, ND)

Julian Calabrese for Neil Harrington (MT, WY, AK)

Don McKenzie (NM, UT)

Training Kudos

- Classes have been a huge help and thank you Karyn and Jessica from (NM)
- Galena successfully used in MT the week following class thank you

Training Suggestions

- Recorded classes and webinars
- Refresher modules
- Classes during winter for states with short field seasons
- Taylor for the region please
- Data transfer class or section
 - ArcPAD check out check in...

Remote Sensing

- Colorado: Veg study at GEC forfeiture site would be helpful to avoid landowner complication
- New Mexico: Good stuff

Montana Data System

- Acquisition of Colorado's App.
- TIPS support
 - Thank you for the quick response
- TIPS Request

Cameras

- Down-hole Camera: CO & NM Success
- Ricoh: MT & NM used and bought one

Mid-Continent Regional Constituent Report Panel

Mark Schlimgen (TX, LA, MS)

Tim Wilson (KS, MO, IA) – Not in attendance at meeting

Greg Melton (AR, OK, AL)

Mike Sharp (NAAMLPL)

- TIPS Innovation Needs (mobile computing, remote sensing, software, hardware, etc)
 - All states appreciate the TIPS Program being there when we need them.
 - OK AML used the TIPS tools (scanner, AutoCad Map and Raster Design) to develop maps of abandoned underground mines in the Tulsa area. These maps were exported to Google Earth format for distribution to the public as requested.
- TIPS Software (use, issues, and needs)
 - MCR state programs don't have manpower to spend a lot of time doing "flashy" projects, but rely heavily on having access to TIPS software day to day.
 - TIPS needs to do a better job of promoting the pairing of GIS and CAD.
 - KeyServer- No problem with metering software as long as it is restricted to TIPS software.
 - The online ESRI training is greatly appreciated and hopes to see it continue.
 - One KS staff member is very interested in training opportunities for AQqa.
 - NAAMLPL-VA had questions concerning the functioning of KeyServer which it seems have been answered by the TIPS team.
 - NAAMLPL-WV commented that TIPS needs to obtain/provide AutoCAD 2009 and associated updates for all AML Programs doing design work.
- TIPS License Servers and IT Issues
 - TX experienced denied access to all OSM sites (license server, website) several times during past year.
- TIPS Training (successes, use, issues and needs)
 - NTTP/TIPS training needs survey
 - It is obvious that the coordination now occurring between NTTP and TIPS is paying big dividends in course delivery.
 - KS training coordinator would like to see the mechanics of submitting training survey to allow one person to enter both Title IV and Title V surveys. It is redundant, inefficient and annoying for our office to submit two separate surveys which requires two separate surveys to be sent to our headquarters for approval.

DOI Learn (learning management system)

Slot Allocations

OJT

On-line training

State/Tribal Instructors

Career Path needs

Classes

- NAAMLW-WV commented that TIPS needs to have an advanced AutoCAD class for the design package (Engineering) with competent instructors.
- TIPS Mobile Computing Technology (successes, use, issues, and needs)
 - AutoCAD Map/Carlson Field used regularly for inspections in TX
 - KS appreciates the assistance of Bob Welsh working with the vendor to resolve issues with the TopCon GPS unit and ArcPad compatibility.
 - OK AML appreciates the Xplore tablet and is presently field testing the unit. As with any of these type of units, screen visibility in bright sunlight, especially with orthophoto background, is an issue.
- TIPS Hardware (successes, use, issues, and needs)
 - LA needs Toughbooks for field work.
 - With most states experiencing budget reductions, the committee may need to re-consider (at least temporarily) helping states with the purchase of hardware. These essential "toys" are hard to come by in difficult times.
 - Iowa needs "a camera with a range finder that can upload to a Trimble unit".
 - OK Title V needs a scanner.
- TIPS Communication (resources, success stories, issues, needs, etc.)
 - TIPS Email group – to regularly share tips and tricks, short success stories? (suggestion) (Joe Taranto made a suggestion to use Constant Contact)
 - Iowa appreciates MCR staff giving them a primer on permitting a coal mine since IA has not done a new permit in several years. They also appreciated the pens and stuff.
- TIPS Public Relations (successes, issues, and needs)
 - Mid-Continent OSM Office had lent their expertise as well as the bore hole camera for an AMD Discharge for an Abandoned Mine Shaft and gave some assistance in a passive treatment system. That was completed earlier this year.
- TIPS Service Managers (successes, use, issues, and needs)
 - KS reports that service manager for IA, KS and MO did not respond to an e-mail request for information. We have not spoken to our service manager in over a year. However, other service manager's in the MCR have lent assistance when requested.
 - TIPS needs to do a better job of getting remote sensing information out to the service managers so that information can be passed on to the states.
- TIPS Workshop/Forum Needs
 - OK Title V / OSM-TFO / OSM-MCR conducted an outreach program on hydrology/GPS/reforestation to high school students at an Oklahoma mine site on April 8, 2009.
- TIPS Website (successes, use, issues and needs)
 - Post the list of current software version/date sent out by TIPS on the TIPS website (suggestion)

- TIPS Resources issues and needs (AML Reauthorization)
- State/Tribal Resources (AML Reauthorization)
- Geospatial Databases (use, issues, and needs)

OSM Constituent Report Panel

- Like the on-site courses and that there can be an on-site course that is really tailored to that particular office. Especially good for a lot of new employees.
- More new service managers in the east is a good thing.
- Training is very good, the software is awesome and the hardware is great.
- Geospatial strategy or the geospatial side of, what has been developed in TIPS and it is probably time to graduate and move on to the next level and let TIPS continue to do the Innovation piece and figure out some bigger strategy for the Geospatial Stuff.
- We are all starting to have a hard time trying to meet the demands of NTTP and TIPS and it is getting really hard to supply enough staff especially with these increased on-site courses.
- The Service Managers, the issue there is again is that they really don't have enough time to get out to each of the states and spend the time that they need to spend with them.
- aAway to put some TIPS admin staff in the other regions I think that could also help take care of some of the pressure on trying to meet the demands for courses and getting the training rooms ready and things like that. There is a need for more if we really want to be successful.

Roger Calhoun (AR FO's and KFO)

- Software distribution glitches is an issue.
- With loaning of equipment just list the items that are actually part of the system on the box lid when you transfer it, then you sign off on every piece not just here is a box with a camera in it. Make them sign for every piece.

John Craynon (HQ-PSD)

- Right now we have at least five people in my division using TIPS software on a regular basis. I see that increasing more by the time next year rolls around. I think that is a reflection of the increasing geospatial emphasis on a lot of what we do.
- We have some IT challenges in headquarters. My staff and service manager Li-Tai is constantly working with the CIO's office but we are experiencing that on a regular basis and a lot of us that would use the tools a little more frequently are banging our heads against the wall when we cannot attach to the license servers and so the software won't even start.
- Folks that may have taught one or two classes a year are now being asked to teach four times and that is something that I think we need to grapple with.

Paul Ehret (MCR and MCR FO's)

- TIPS is required to expand to fast to keep up with necessary work that is going to call for us to maybe just sit down and re-invent ourselves or reexamine ourselves and maybe try to get back to fewer primary programs.

Jeff Fleischman (WR, WR FO's, and Tribes)

- We are using remote sensing imagery air flight evaluating contemporaneous reclamation, out of the world's largest mine site.
- TIPS GPS equipment helped to evaluate bond release.

- As the remote sensing technology progresses we are going to be in a position to share that with the states.

Bob McKenzie (AR)

- The highest profile technical assistance cases that we have in Appalachia have been solved with earthVision software. What has been missing for earthVision for a long time has been a training class and the development of that is underway right now.
- Suggestion to put a list of free software on the web-site that is useful and probably not supported by TIPS but just things so technical folks can say here's a list, here's a brief description of each one, what it's value is and it's free and you can download it off the internet. One that we use a lot is called HUGIN and it creates incredibly accurate panoramic and you can take and stitch a bunch of photographs together. The other one that we use heavily in the mine map repository is called Earthenvision and it is great for resizing and cleaning up photographs.

Bill Josphe (MCR)

- I've got one more follow up one that was brought up in the mid-continent that was brought up by one of our or several of our course managers, the whole issue about making sure that there are enough licenses available to teach the course. You know that is something that I think the license manager needs to be aware of, and I don't think the course managers need to be aware of that. It is like Al mentioned the other day that the software manager needs to be watching that license server and they need to make sure that they are bumping up licenses when they see that there are shortages.

Business Networking Topics

1. Emerging Technologies (what should be explored and why?)
2. TIPS Tools (criteria for managing growth)
3. Budget Priorities (75K where to get it from this year?)

Steering Committee – Nashville, TN

Thursday, May 21, 2009

Strategic Plan and Charter Review

The TIPS Charter lays out what TIPS does and what the various duties are for our teams.

Changes that need to be made:

- Include a spreadsheet of the TIPS team member duties to the charter with a list of who the supervisors are.
- Add the success teams to the charter.
- Update Strategic Plan with number of users of the software and offices.
- Necessary to update goals that were important when it was originally created to what is new.
- A team needs to be put together to re-visit the strategic plan (Eric Perry and Paul Ehret)

Business Networking Summary

Topic #1: Criteria for Managing Growth – Facilitated by Eric Perry

1. No duplication – consolidate functions
2. Practical Value
3. Prioritize
 - Training
 - On-site
 - Nice vs. Need Module
4. Track Use
5. Value
 - Cost Benefit
 - Life Cycle
6. Limit #
 - (Roger's Rule)
 - Retire Older Technology
7. Strategic Plan
 - Evaluate State
 - Make part of the steering committee agenda
8. Partner with Universities for training

Topic #2: Geospatial Strategy Summary – Facilitated by Bill Winters

Vision – Paint a clear picture at what exactly is to be accomplished

“Make all state SMCRA data available to the public & RA in digital form”

Strategies

- Let things ride for one year due to existing stress
- Keep framework at 50,000 foot level
- Use NCMGC as framework team
- Assess current state of code RA database/sets/systems as starting point –don't re-invent the wheel
- Bring state partners into development/planning of framework and strategy

- Pick a point in time to implement
 - Don't look back – legacy data
 - Incorporate new data submissions and associated format into framework

Obstacles

- Cost – infra structure
- Institutional data loss
- Paradigm shift
- Legacy data entry
- Skill sets – programming

Vision

- How will TIPS relate to framework if framework goes somewhere else?
 - What is TIPS role?
- Develop integrated GIS based business module
 - Framework is part of business module
 - Facilitates analyzing data relationships

BIG BROTHER GIS

Existing Goals – Desktop tools and applications

Suggestions

1. Software, Version, Deployment Date
2. E-mail alert when changes occur (software updates, website, problems, solutions)
3. Map TIPS Team Member Roles & their Supervisor
4. Roger's Matrix
5. Add Success teams to charter

Please Mark your Calendars for next year's

**Steering Committee Meeting
Western Region
May 11-13, 2010**