

Steering Committee – St. Charles, MO

Tuesday, May 13, 2008

Steering Committee Attendees

State: Julian Calabrese, representing Neil Harrington; Larry Evans; Greg Melton; Dave Berry; Joe Taranto representing Scott Roberts; Mark Schlimgen; Mike Sharp; Tim Wilson

OSM: Jeff Fleischman; Bill Card; Tom Galya, representing Roger Calhoun; Bob McKenzie; Bill Winters; John Craynon; Roy Morrison; Glenda Owens; Ervin Barchenger; Len Meier; Billie Clark; Paul Clark; Dan Rivers; Louis Hamm; Karyn Evans; Beatriz Hill; Steve Trujillo; Dawn Trudeau

Conference Guests: Debbie Dale; Paul Behum; Stefanie Self; Min Kim

Video Conference Guests: Dianne Osborne; Alan Wilhelm; Robert Welsh; Cathy McNish

2008 Steering Committee Decisions

Robert Welsh will look into the price break for the Floating licenses for Trimble PF Office licenses and report back to Committee.

Yes, ER-Mapper will be standard TIPS core software, with the current 3 copies that we have. (Alan Wilhelm)

Rockware approved as TIPS core software. Yes, purchase the 5 software extras at \$350.00 and \$1,600.00 for the support. Paul will need to get the software out the door,

TIPS Should continue to fund the NCMGC initiative in the 2009 Budget, but Tips should not have to keep funding this initiative.

The Committee supports adding PHREEQ to the AMD Treat Modules without TIPS funding. Bob McKenzie will be pursuing the correct procedures to make this happen.

Erv Barchenger and Billie Clark – Welcome

Theme for this year's meeting "Lewis & Clark" The New Frontier

Lou Hamm, Karyn Evans, Beatriz Hill, Dawn Trudeau - Introductions

Opening Icebreaker "Three Wishes" (see Appendix A)

Current TIPS Initiatives are:

- Increased Tie to Technology Transfer – TIPS tools and training have become an integral part of OSM's Technology Transfer Initiative. This partnership will continue to grow in the coming months.
- Increased Coordination with NTT – TIPS partners with NTT on the development of website information, course schedules, surveys, and

cooperation through the Instructor Advisory Committee. The newly developed "Career Guide" is part of the fruit of that collaboration.

- Training Program Changes – TIPS now purchases a block of rooms for each class so that students no longer have to pay with their own credit card, and students now make their own airline reservations.
- More Developed Success Teams – The TIPS Success Teams coordinate business decisions on a national level for the following TIPS tools:
 - GIS
 - Remote Sensing
 - Mobile Computing
 - CAD
 - Hydrology
- TIPS has also developed an organized Service Manager Team
- TIPS continues to develop new Technologies including:
 - Survey-grade RTK GPS systems
 - Borehole cameras
 - Ricoh GPS cameras
 - Thermal Imaging cameras
- Increased communication through the TIPS website – Included in this initiative is the newly developed TIPS "Data Miner." The Data Miner is a site on the TIPS website that is a comprehensive collection of geospatial data-source links available on the Internet. The site allows access to all of the web's best geospatial data sources, with helpful tools and information, from one comprehensive source.

Current TIPS Issues

Limited staff and not enough instructors to meet demand means that, as always, TIPS can only meet 50% of training demand.

Purchasing requirements together with Administrative duties to set up Training Classes have overtaxed the TIPS Administrative staff. TIPS is undergoing a process to add temporary and permanent positions to its administrative staff.

Paul Clark - Service Manager Update

TIPS has thirteen service managers. Their role is to build relationships at both the management and staff levels. Bringing people together to take common problems and develop solutions.

Roles and objectives

Meet with staff to communicate the TIPS mission and build relationships

Approach: Initial/periodic group meeting. Focused follow-up. "Road Shows" coupled with Tech Transfer

Success: Good; Expanding to Area Offices
 Challenges: Service manager Education

Understand program Identify needs. Develop and implement effective solutions
 Approach: News clips
 Success: Good overall understanding
 Challenges: Need to drill down deeper

Arrange TIPS services including Training software and hardware support and TIPS related technical assistance.
 Approach: State Contacts. TIPS website
 Success: High. Strongest area of the program. Career series. Online Education Modules
 Challenges: Requests for alternative on-core software. Core software training too involved

Coordinate with OSM training Program Team Leader on special training needs
 Approach: Propose to Lou, assemble team of specialists, implementation schedule with major milestones.
 Success: Groundwater Vistas in Pittsburgh Mobile Computing in MCR, Wyoming Program E-tools Workshop
 Challenges: Upfront labor investment is high

Coordinate TIPS activities with State Offices, OSM Regional and Field Offices
 Approach: Annual Steering Committee Reports – coordinate with field offices, they are contributing to our process. We need to be more effective and efficient
 Success: No complaints, good or bad
 Challenges none if doing items 1 and 2

Coordinate with Core Software managers regarding software deployment and licensing issues, and distribute TIPS core software to designated contacts.
 Approach: Success Teams – Software Manager – License Administration – CD reproduction – distribution to SMS – SM distribute to designated contacts – designated contacts distribute to in-house IT – Software is installed
 Success: Satisfactory
 Challenges: More steps provides more opportunity for pitfalls process slows timely upgrades

Highest element: Training Program
 Online Training Modules
 Galena Slope Stability Analysis
 BLEP – Blasting Log Evaluation Program
 SDPS – Surface Deformation Prediction System

Lowest Element: Software Distribution
 Goal: License Administration – User
 Installation updates through web by individual
 Minimize steps in process
 License Administration – CD Reproduction – Distribution to SMS

This group was put together in response to the Steering Committee suggestions.

Team Members are from OSM and States.

State: Teresa Baker (PA), Jeff King (PA) – Course Manager, Carlson Mining, Mike Lamb (WV), Joe Matyus (PA), Doug Mullins (VA) - Course Manager, Autodesk Map 3D/Raster Design
Harry Ranney (CO) - Course Manager, AutoCAD, Mike Sharp (OK)
Travis Wootton (TX)

OSM: Li-Tai Bilbao (HQ), Tonya Buckmaster (WR) - Team Leader
Lisa Chavel (AR), Heather Erickson (WR), Tom Mastaller (AR) - Software Manager, Randall Mills (MCR), Stefanie Self (MCR) – CAD Course Manager

Mission

To develop and maintain effective training and technical assistance for Autodesk and Carlson software distributed and supported by the TIPS program

State and OSM members are assigned roles of Team Leader, Software Manager, and Budget Manager.

Any member may hold role as Course manager, currently there are four.

Team will hold face-to-face meeting when possible and will hold teleconferences at a minimum every quarter.

Changes to structure/charter must be done by consensus

Accomplishments:

Re-development of 6 courses

Continued development of 2 new courses, one online and one classroom (Natural Regrade).

Development and instruction of three on-site trainings

Evaluation and distribution of 2008 release for Autodesk and Carlson

Funded attendance for 11 members at 2007 Autodesk User's Conference

Continued evaluation of Autodesk Civil 3D, Autodesk Design Review (free) able to view maps, and Map Guide Server

Currently supported:

AutoCAD map 3D 2005/2007/2008

Key Features:

Precision editing of GIS data.

GIS tools for map creation and presentation

Auto CAD Raster Design 2005/2007/2008

Key Features

Accurate raster to vector conversion tools

Raster editing and drawing cleanup tools

Raster data analysis

Carlson SurvCADD 2005/2006

Carlson Mining 2007/2008

Key Features

Built on AutoCAD

Surface modeling tools

Design options work from actual surface topography, geologic data and equipment parameters

Licenses

Auto CAD Map 3D (55)

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

Courses

- AutoCAD fundamentals for Permitting and Reclamation (2)
- Advanced AutoCAD for Permitting and Reclamation (1)
- 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)
- Carlson's Natural Regrade for Permitting and Reclamation Pilot (1)
- On-site training in Illinois and West Virginia.

Budget

- Focused on software maintenance and update of existing courses
- Annual funding:
 - 2008 Annual Autodesk User's Conference attendance

Debbie Dale – Hydrology

New team formed 2 years ago OSM and state employees, Kathy Ogle, Mike Sheehan, Tim Walter, Deborah Dale, Mary Greene, Bill Winters

Mission

- TIPS Hydrology team
- Objectives
 - To improve the hydrology services to the States, Tribes and OSM offices
 - Identify potential hydrology classes and associated software
 - Review and critique hydrology software
 - Act as liaison
 - Encourage coordination between TIPS and NTT
 - Provide briefings and recommendations to the TIPS management and TIPS Steering Committee.

Strategy

Meeting the needs of our customers – Improved communications, what are their needs and complaints:

- Surveys
- Newsletter articles
- Webpage
- Poster

Integrating hydro software with other TIPS software (e.g. geospatial)

Maintaining core software

Identify and integrate new hydro software

Large Watershed Team meeting - reforming
DOI Subcommittees in hydrology

Alan Wilhelm – GIS

Mission Statement

The mission of the TIPS GIS team is to research, evaluate, promote and support the use of GIS technologies in SMCRA business practices. The team will provide guidance, training, and software to make GIS data and tools available to all SMCRA programs. Team course development and training in GIS techniques and technology will focus on the practical use of TIPS core GIS software for mining and reclamation applications.

Team Goals

- Increase use for GIS technologies among TIPS users
- Promote feed back on effective GIS technologies from users
- Educate the TIPS GIS user base on the applications of the technology
- Inform the TIPS user community of GIS project achievements
- Provide the most current versions of GIS core software

Team Members

Dave Agnor – OSM CFRO, 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

Software Status

- Arc Info Desktop V9.2 – Concurrent Use – 75 licenses
- 3D Analyst V9.2 – Concurrent Use – 75 licenses
- Spatial Analyst V9.2 – Concurrent Use – 75 licenses
- Survey Analyst V9.2 – Concurrent Use – 75 licenses
- Geostatistical Analyst V0.2 – Concurrent Use – 4 licenses
- Maplex V9.2 – Concurrent Use – 75 licenses
- Network Analyst V9.2 – Concurrent Use – 75 licenses
- Arc View V9.2 – Single Use – 15 copies deployed
- Arc Editor V9.2 – Single Use – 4 copies deployed
- ArcGIS Server Advanced Enterprise V9.2 – 8 copies deployed
- Arc Pad V7.01 & 7.1 – Single Use 202 – copies deployed
- GIS Training Courses
 - Underground Mine Mapping with GIS
 - One class held in FY08
 - ArcGIS portion of class needs to be updated to 9.2
 - Introduction to ArcGIS for Mining & Reclamation
 - Four classes in FY08
 - ESRI Online courses
 - 82 different courses available
 - 56 courses issued so far for FY08
 - WY E-Tools course for WY was developed & taught
 - Course is to become a standard TIPS course
 - Google Earth – application for sharing SMCRA GIS data

X-tools Pro 5.0

Currently in R&D status

Package of tools useful in vector spatial analysis: Currently in R&D status -

Package of tools useful in vector spatial analysis

TIPS Tools

Arc Map Customization

TIPS Tools Prototype

Data Sharing Prototype

GeoDataBase/ArcServer

Outside Web Services

Data Interoperability

Hawth's Analysis Tools

Extension for ArcGIS

Performs spatial analysis and functions that cannot be conveniently accomplished in ArcGIS

GIS Budget

DOI/ESRI Enterprise Agreement - \$78,090

ESRI User Conference - \$30,000

Purchase 3 copies of Xtools R&D software - \$500

Purchase R&D Image Server software - \$13,500

Maintenance for 150 copies of ArcPAD - \$16,900

Robert Welsh – Mobile Computing

What is TIPS Mobile Computing

TIPS-tested computing tablet or handheld device used in the field

TIPS-supplied Mobile GIS software on-board for navigation, data verification and collection

Live GPS with imagery displayed as background

TIPS Mobile Computing Team

Jon Brandt (TX Railroad Commission)

Leslie Bright (VA DMME)

Ken Eltschlager (OSM-AR-Pittsburgh, PA)

Min Kim (OSM-MCR – Alton, IL)

Russ Kirkham (AK-DNR)

Tom Mastaller (OSM-AR-Pittsburgh, PA)

Robert Welsh (OSM-TIPS) Team Leader

Mission

"To research, evaluate, promote and support the use of innovative, effective mobile computing and geospatial technologies to facilitate monitoring and documentation of compliance in the reclamation of SMCRA-eligible mined lands. ... provide the knowledge, software, and hardware to make geospatial data and tools available at the point-of-use: the active or abandoned mine site and other affected areas."

Mobile Computing Team Goals

Increase use of, and feedback about, mobile geospatial technologies among TIPS users

Educate the TIPS mobile computing user base on the applications of the technology

Inform the TIPS user community on TIPS customer MC project achievements

Team alignment with TIPS Strategic Plan

MC Team supports both TIPS Strategic Goals

The MC Team works to “promote and support the use of scientific and engineering tools...” by providing and supporting MC HW/SW and delivering workshops, MC Blog, website page.

MC Team contributes towards “Operate an effective training program” by developing and instructing highly-rated training courses for ArcPAD, Garmin and Trimble HW/SW. Eight classes are scheduled for FY08.

Accomplishments

Distributed \$620K of HW/SW since Oct. 2002

Distribution was prioritized with input from MC team and Service Managers

Provided high quality MC training

ArcPAD, TerraSync/PFOffice, and Garmin training courses are among the highest rated TIPS classes

Expanded the MC Initiative

\$70K FY08 Budget

MC Blog , Webpage, ESRI UC paper, Workshops

RTK GPS and Ricoh GPS camera acquisition for Western TIPS region

MC Team added three state members, Jon Brandt (TX), Russ Kirkham (AK), and Les Bright (VA)

Training Course Status

Arc PAD 7.0 (2 classes), 7.1 development for FY09

Garmin eTrex Vista C/TopoFusion (5 classes)

Terrasync 2.4 /PF Office 3.0 (2 classes), new development for PF Office 4.1

GeoExplorer 3/ PF Office 3.1 (1 class)

Innovation

Prototype JunoST handheld, Ricoh GPS camera, and CartoPAC SW

Evaluate new training materials for TerraSync, ArcPAD/GPSCorrect, TerraSync from Trimble

Investigate moving Blog to new SharePoint 2007 to improve user access

Adopt floating licenses for 12 copies of PF Office v. 4.x

Team Budget

\$59,000 Seed Technology HW/SW support

\$20,000 PF Office 12-seat floating licenses

\$2,400 TopoFusion additional 500 licenses

\$6,000 TIPS SW OSM support

\$9,500 MC project support, workshop, and team travel

Steering Committee Decision Time

MC Team recommends purchase of 12 floating licenses for Trimble PF Office

Pros: 24/7 checkout for correction, editing, shape file or CAD conversion of Trimble GPS data

Access to newest versions of PF Office

Usage tracking possible with tweaks?

Cost should decrease with DOI Enterprise Agreement

Cons: Cost \$20,000 for one-year license

Diane Osborne – Remote Sensing

Team Members

OSM: Louis Hamm, Dianne Osborne, Roger Calhoun, Bill Card, Mike Dunn, Lukus Monette', Min Kim, Alan Boehms, State Representatives: Larry Evans, Russell Kirkham, MC to be determined

Mission

To support the accomplishment of the TIPS strategic Plan consistent directly with the TIPS Mission

Team Charter

Purpose – promote and support the use of remote sensing technology to achieve the requirements of SMCRA

Mission

To support accomplishment of the TIPS strategic plan

Deliverables - operational plan will be updated by the team every two years. Develop and integrate remote sensing technologies into everyday activities associated with SMCRA operations to improve decision making and conserve resources

Strategies

Demonstrate and document the cost effectiveness of applying remote sensing technologies to SMCRA operations

Provide technical assistance and guidance to OSM, State and Tribal SMCRA programs on remote sensing projects and activities

Provide guidance assistance to OSM, State and Tribes in identifying & acquiring remote sensing data

Accomplishments

Evaluate emerging technologies and conduct prototypical investigations in the remote sensing arena

Projects

1. Using Remote Sensing to Evaluate Approximate Original Contour Reclamation
OSM Appalachian Region
OSM Lexington Field Office of Surface Mining Kentucky Department of Natural Resources
2. Using Spectral Classification and Training to determine density of Acid Mine Drainage Classification in Muddy Creek, WV
3. Assessing Reforestation on Reclaimed Indiana Surface Coal Mine Sites Using Geospatial Technology – A remote sensing proposal for analysis of reclaimed Indiana bat habitat conditions
4. Using remote sensing technology to analyze vegetation success at West Virginia surface coal mines
5. Assessing the use of IFSAR and LIDAR imagery for the detection of High wall Features
6. Assessing the use of High resolution satellite imagery to inventory abandoned mine land features and classify Post Mining land use

7. Mine site evaluation using remote sensing technologies
8. Assessing the use of High Resolution satellite imagery to identify water quality trends and classify Post mining land use

Software licenses

- ERDAS imaging 9.1
- ERDAS Imagine 9.2 deployed by June 1
- Image Analysis for ArcGIS 9.2
- Stereo Analyst for ArcGIS

Training Courses

- Image Analysis for ArcGIS 9.2
- ERDAS Imagine 9.2
- Online Image analyst for ArcGIS course developing

Cathy McNish – Software Report

Reports are located on the TIPS team share point site.

Alan Wilhelm – ER-Mapper

Why the need for Raster Compression

- Make large raster files available for download onto small mobile GPS devices
- Compressed raster files work faster in GIS applications
 - Faster load times
 - Faster refresh rates
- Smaller storage space
- Makes raster files easier to transport from one device to another
 - Burn to CD or DVD more easily
 - Internet access faster
 - Other mobile storage devices

What is a Compressed Image?

A compressed image is one that has been reduced in size, but still maintains an almost perfect version of the original. There are various compression techniques, but it is wavelet compression that is used by ER Mapper's software. This technique enables very high compression rates where a typical color image can be compressed to less than 2% to 5% of its original size (50:1 to 20:1 compression ratios). This means that, at 20:1 compression, it is possible for 10GB (10,000MB) of color imagery to be compressed down to 500MB, small enough to fit on a single DVD-ROM disk.

Compression Example

Before Compression Color Image Statistics

QuickBird Satellite Image – 4 Bands

8882 x 9851 pixels

Cell size = 7.874 feet

Image format - TIFF

Uncompressed Size – 363.69 MB

After Compression Color Image Statistics

Compression Ratio 20:1
8882 x 9851 pixels
Cell size = 7.874 feet
Image format - .ecw
Compressed Size – 18.9 MB

Two Compression Formats Available in ER Mapper

The Enhanced Compression Wavelet (ECW) file format has become a de facto geospatial industry standard for high end imagery, enabling, for the first time, interactive roaming and zooming of terabyte-sized images. After more than five years of commercial use, it is a mature, stable technology with a strong user base worldwide.

The ISO JPEG 2000 standard (ISO/IEC 15444) is fully supported by ER Mapper 7.1. It allows precisely defined control of all aspects of compression, and includes a lossless mode that allows perfect reconstruction of compressed data while still providing significant file size reduction.

Compatibility with other TIPS Core Software

ArcGIS – Works very well within ArcMap, ArcCatalog, ArcGlobe & Explorer

AutoCAD – CAD supports the ECW format

Arc Pad 7.1 – does not support ECW format – was supported in version 6.x via a plug-in - There may be a plug-in developed for version 7.x at a later date

New TerraSync version can use both ECW & JPeg2000

Deployment

ER-Mapper Professional 7.1 uses the Flex License Manager

Currently can redeploy 3 copies used for R&D into 3 TIPS Core Software (concurrent use)

Minimum Hardware Criteria:

Processor/Operating System ER Mapper is designed for Pentium II 1GHz or higher IBM-compatible PCs running Windows NT 4.0 SP6a, Windows 2000 SP4, Windows XP SP1 or Windows Server 2003.

Display

64MB or higher video card.

Peripherals

A CD-ROM drive is required.

Printer/hardcopy device

ER Mapper prints to any printer supported by the Windows platforms listed above.

Memory

At least 512 MB of RAM (1GB of RAM is recommended).

Disk space

At least 160 Mb of available disk space on a single disk partition (minimum installation option). An additional 180 MB for swap

An additional 100 MB for temporary files.

Additional disk space will be required depending on storage used for saving datasets.

Paul Behum – Rockworks

Key benefits for cross section software

StratiFact had unique geologic correlation capabilities.

State or tribal area wide databases are possible to aid electronic permitting

Geologic illustrations can be generated to aid decision

What is RockWorks/14?

An integrated geologic modeling and well database

Benefits

Low relative cost and U.S. developer.

RockWare is allowing keyserver distribution

Includes geologic modeling and hydrology tools

Supports 2 and 3-D fence diagrams

User Friendly data entry in the borehole manager module

Vendor is allowing KeyServer – based distribution

Reclamation can be enhanced with TIPS geologic tools

StratiFact's TIPS SUP was cost prohibitive (25K)

Replacement required significant up-front Cost

Next Step

Vendor Training of Training Cadre within 6-12 months

Develop Training Class for replacement within 18-24 months

Continue procurement effort for maintenance agreements on 5 copies

Phase out TIPS support of StratiFact

Bill Card – Geospatial Activities report

Formed September 13, 2005

Goal is to promote development of geospatial technology to support SMCRA

Funded through TIPS

Sponsor is Chief, Technology Management Division

Members

Bill Card, OSM Knoxville, Larry Evans, West Virginia, Kwang Kim, OSM Mid-continent, Doug Mullins, Virginia, Alan Wilhelm OSM Western Regional

NCMGC Groups

SMCRA Geospatial Data Stewards

Coal Mining Spatial Data Standards ASTM Task Group

Coal Mining Spatial Infrastructure Team

Technical Resource Group

Accomplishments

Annual meeting, January 9, 2007 – implemented recommendations from 1st

National Meeting of SMCRA Geospatial Data Stewards in 2006

Recommended FY 08 national geospatial conference – Bill Winters accepted coordination lead February, 2007

Briefings to OSM management on NCMGC

Coal Mining Spatial Data Standards ASTM Task Group held 3 meetings

January 2007 – Costa Mesa, CA

June 2007 – Norfolk, VA

September, 2007 – Albuquerque, NM

Coal Mining Spatial Infrastructure team – continued Phase 2 work to collect coal mining spatial datasets from servers outside OSM's WAN

Training Program – 23 classes

Public Outreach program – 5 events

Recruitment Program – 3 states

FY 2008 Accomplishments

- Annual Meeting – November 7, 2007, Charleston, WV
- Briefings to Management
- Coal Mining Spatial Data Standards ASTM Task Group
 - 2 team meetings January, 2008 – Tampa, FL, June, 2008 – Denver, CO
- 2 standards approved by ASTM
 - Coal surface mining boundary – September 1, 2007
 - Coal underground mining boundary – April 1, 2008
- FGDC first meeting – February 27, 2008
- Coal Mining Spatial Infrastructure Team – Completed Phase 2 on February 1, 2008
- FY 08 Geospatial Conference/2nd National Meeting of SMCRA Geospatial Data Stewards – Incorporating Geospatial Technology into SMCRA Business Processes – March 25-27, 2008
- Coordination with MSHA – May, 2008
- Training Program – announcement April 17, 2008
- Recruitment Program (in progress)
- Public Outreach Program (in progress)
- Small SMCRA Programs Assistance (to begin)

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
- Improve accuracy of derived information products

Steering Committee – St. Charles, MO

Wednesday, May 14, 2008

Steve Trujillo – Budget Report

We are currently into the FY08 budget 60% and have spent 57% of the FY08 Budget. We spent within six tenths of our FY07 Budget. Budget differences this year include the Geospatial Conference in Atlanta, March 2008, and higher costs due to travel for the training program. Emergency funds have not been allotted and currently no outstanding purchases. In FY2007 we have paid the following training travel costs: PA=\$76,806.00, WV=\$25,000.00, KY=\$10,000.00. (See chart in Appendix B)

Lou Hamm and Len Meier – NTP Training Report (for Ann Walker)

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

What's New?

Master instructor forum

Learning styles

Presentation skills

Enhanced techniques for student participation

Multi-Media presentation skills

Transfer of learning to Job

Improving job performance

Declaring victory

Attention we would like to encourage more state instructors to attend

SMCRA History Projects

Document the tremendous progress in reclaiming mined land since 1977

Tell the story of the State, Tribal, and Federal people who made SMCRA work

Show the next generation how success was achieved

Show the next generation their role in carrying reclamation to new heights through new technology

Vehicles: Training video plus oral history

FY 2007: Program Accomplishments

1746 students trained in 64 sessions of 49 different courses

Presented in 21 locations in 12 states

FY 200: 82 OSM instructors, 61 State instructors, 11 Solicitors

GPRA Goals

Number of Students trained and Program effectiveness rating

Improved job performance

Better upfront thinking

Improved

Cooperation

Needs survey & course scheduling

Instructor scheduling

Joint teams

Steering committee membership

course development

Career series

Instructor Advisory Council

Recommended by instructors

Purpose

- Improve communications within course clusters

- Improve communications across course clusters

- Identify common issues

- Chair: Tom Hines, Ohio Instructor representative, Allen Kraps

Initial Advisory Council tasks

Instructor incentives

- Develop package to recruit & retain instructors for NTTP/TIPS Programs

- Incentives include instructor tools, conference attendance, meeting

- instructor equipment and logistic needs

- Instructor Development

Recruitment brochure

Career series

Assure that TIPS & NTTP courses are covering all training needs

Assist managers and students in course selection

Continuing Education Units – George Mason University

New state requirements

Professionalism

NTTP/TIPS instructor

Succession planning survey

Purpose

- Determine availability of instructors for next 5 years

- Identify new instructors

- Instructors identify new student needs

FY 2008 Plans

- Continue SMCRA oral history & video

- Boot camp for inspectors

- Incentive package will be distributed

- Revised basic inspection workbook

- Hardcopy of NTTP/TIPS training catalog

Karyn Evans – TIPS Training Report

Training Program Report

Introduction introducing the three training centers
List of classes for FY2008 – added requested classes (GPS Garmin)
TIPS value instructors and map of where instructors and developers and located
List of all TIPS course by discipline
Regional support staff help to deliver the program efforts
Student's quotes and feedback
Map of student base over 200 students from the Appalachian region front runner is PA with 119 students trained
Over 2/3 of our students come from the states
Evaluation summary for each class taken by each student following their class
FY 07 taught 409 students 11% more than FY 06 anticipate over 400 this year
Accomplishment
\$334,000 travel \$25,000 course development \$25,000 advanced training \$2,000
online courses ESRI Premium course \$12,000 for classroom supplies.
TIPS e-learning guide booklet/guide – will be posted on TIPS website

Slot assignments are released January 15th of each FY.

Changes in TIPS processes for 2008

A major change for the TIPS program this year is that we will be paying for lodging and Students will need to call SATO travel and make their own flight arrangements. This process is very similar to what NTPP does for their training program. Prior to this everyone would pay with their own credit card and be reimbursed with the travel voucher. This is an improvement and approved by the Steering committee.

Course catalog has been updated to PDF for TIPS on the website and now provides support to the instructor advisory council for pre-requisites to courses

Paul Clark – Technology Transfer

Website elements were reviewed www.techtransfer.osmre.gov

Meet monthly on state priorities and identify an AML and regulatory topics of interest and will highlight and give more priorities. Three areas headquarters, western region, midcontinent region, and Appalachian region.

Larry Evans (KY, MD, OH)

Need a CAD to GIS interchange template. Doug Mullins in VA has developed a tool to use and refine and could be tapped for a national solution. This is a task that could go to the CAD or GIS Team, or the NCMGC.

An informal agreement was made that the NCMGC would look into this issue.

West Virginia would like their Oil and Gas Division to have access to the TIPS ArcGIS licenses to better understand how sites relate to mining so that oil and gas wells don't punch through to underground mines.

TIPS licensing and license serving is good. TIPS is one of the best things that OSM has ever produced.

Training comments:

DOI Learn has worked well.

We need slot allocations above 50%, especially since our inspector turn over rate is 50%.

Participation in the ESRI User Conference each year is very valuable.

Doug Mullins and Daniel Kestner have had great success using ArcEngine for mobile computing purposes.

The TIPS GeoXT that was sent to West Virginia was very useful in the AOC study. The tablet computer worked well too.

West Virginia has identified areas where we would like to use the Thermal Camera.

West Virginia would like TIPS to purchase a tripod-mounted LIDAR device and have it available as a loaner to TIPS customers.

Success Story:

The AOC study in West Virginia has directly compared using LIDAR in flight over eight sites against ground investigations with GPS equipment. The LIDAR has proven to be much more cost effective than having inspectors on the ground, even with the inspectors using modern GPS equipment.

Needs:

Cheap LIDAR!

Tripod-mounted scanning laser system

National Geospatial dataset maps.

Joe Taranto (PA, KY, MD, OH)

No issues and TIPS is doing a great job

Mobile computing GPS camera GPS units interest in recon and Juno units more compatible than the Garmin units

Software

PA is using almost 600,000. This is a large need that is being filled.

No issues with licensing

TIPS training

Hotel reservations are a big help paying for lodging anything that reduces work when person come back is a bonus. Online training is very useful cost and time

effect and is working well. Career path needs...the new booklet is a tremendous help.

Mobile Computing – Lot of places to make work more efficient especially in working with AML projects. Appreciate the TIPS seeding program in helping with this area. PA could not do the mapping that we do without TIPS GPS units.

Hardware – Getting the seeding technology from TIPS has worked well but they need to start equipping their own personnel.

Communication – building relationships through communication especially with new faces and many leaving.

Public Relations the Website is excellent and they look forward to seeing reports and feedback...good reference resource will improve solicitations and reports.

Remote Sensing is revolutionary to the regulatory community. Data availability is entered for detailed high-resolution products.

Julian Calabrese – (NM, UT, MT, WY, AK)

Ability to do web seminars like live meeting currently purchased Go Meeting. Would like to have a Natural Re-grade course/class. Would like to have any issues on how the software operates completed. Need a solution to this software issue. Arc Engine used to build applications. Alaska would like to consider All Topo.

Needs

An OCR software licensing e.g. Laser-fiche

Software for analyzing imagery possibly simpler than ERDAS. Alaska would like these installed on all the computers

Need to get a software out or information to people for image compression

Easy to use topo maps put together for large areas that work on recreational GPS for non-power users

Wyoming and Montana often do not receive real time correction

Hardware

Laser range finder with blue tooth capabilities

- Remote measurement of mine features that present dangers or obstacles

- Measurement of mine features from remote locations

- Alaska feels that this item is needed to successfully complete certain tasks

Down Hole Camera

- Acquisition slow

- When acquired there are uses planned in Wyoming

Aerial photo camera that mounts to the strut of light aircraft

- Aerial photography

- Allowing for quick low cost updates to aerial photos for smaller projects

Rotating survey radar

To map surface data via a radar point

Unmanned Vehicle – UMV's

Remotely operated camera, GPS or any other tool that could be used remotely to allow access to dangerous or difficult to reach areas

Training

Alaska has a training room available in the Anchorage office that will accommodate 16. This space is managed by title IV and V. The computers are set up to access the OSM

ERDAS

Need specialized training for this complex software

Topcon RTK

Survey grade GPS- has worked great

ArcPAD Mobile computing on multiple field unit platforms

More training and getting use to field people

Works in Wyoming, and New Mexico for multiple applications.

Dave Berry – (CO, ND)

The more they can rely on OSM the better. I strongly believe there are good resources in the field offices also on the permitting and inspection side. Encourages integration especially now when we are losing so much experience. Colorado has had outstanding service with the tech transfer contact and, have had 2-3 special classes in GeoExplorer and ArcGIS presented for the Denver area. IT protocol has been a detriment to their program. We are moving aggressively into mobile computing and have been in contact with Dianne Osborne. Would like to see more work with GPS and GIS integration. Colorado offers the services of Deb Bell to replace Rick Koehler on the NCMGS Data Stewards.

North Dakota

TIPS Innovation Needs/Mobile Computing Needs: The ND reclamation Division has been using mobile computing since 2005. We encourage TIPS to continue the seed technology program that seeks out the best technology to support our program.

TIPS Hardware: TIPS has loaned ND a Ricoh GPS-enabled camera. The images taken by the camera are automatically geo-located and can be easily input into ArcGIS or Google Earth. The Ricoh camera saves staff time from manually cataloging photographic images.

Training: The Reclamation Division has experienced significant staff turnover the past several years due to retirement. The new staff hires are quickly coming up to speed thanks to NTPP/TIPS broad spectrum of training offerings. We anticipate using more of the online training available from ESRI.

License Servers: We request that TIPS make available licenses for the most recent versions of AutoCAD Map 3D and Raster Design, as well as any other applicable software, for evaluation purposes so that states have the opportunity to evaluate the new software as soon as it is released.

Remote Sensing: We are increasingly relying on remote sensing data for regulation of surface mined lands and monitoring of reclaimed mine lands.

Service Manager: We would like to extend our appreciation to our Service Manager, Paul Clark. Paul continues to be a great asset for us in working with TIPS. Paul traveled to Bismarck last summer to meet with the Reclamation and AML Divisions and discuss our TIPS needs.

Mark Schlimgen (TX, LA, MS)

Gave inspectors tough books in their vehicles

With their day to day work they are fighting to keep up, but TIPS software is there to help everyday. The states cannot afford to buy the software so without TIPS they would not have the software, so that in itself is a success story.

Help with loading tough books would be a bonus.

Tim Wilson (KS, MO, IA, IL, IN)

Very happy with software and level of training and support that they are getting.

Not sure what they would want instead. Appreciate TIPS reviewing the software.

Missouri Land Reclamation Program has greatly benefited from the TIPS Program.

Staff engineers, coordinators, and inspectors continue to rely on TIPS for training and support for utilizing the geospatial software, SurvCADD work pads, plotters, etc.

Kansas uses their own licenses for AutoCAD

When training slots are released in January, this process is working

On-line training has been a success, but at times would like to have a follow up with class room training.

Indiana has always supported providing instructor for the TIPS program

Mobile computing is an area where TIPS can and could enhance service

Missouri is looking for a plotter replacement Title IV and V

Illinois would like to have an additional tablet

Would like to have equipment delivered by the service manager with a demonstration along with the installation inviting the IT in the office.

Indiana industry has updated policies and procedures because of TIPS

Service manager function may not even be secondary in their grand scale of duties strongly encourage full-time support from TIPS

Missouri has all their mine maps on computer and available on-line

Greg Melton (AR, OK-RA, OK-AML, AL-RA/AML)

Min Kim (AL, OK) TIPS needs to show some examples of how LiDAR works and AL has expressed interest in purchasing information. State folks are becoming more open to TIPS through success stories. Min sees a lot of opportunity to use this equipment, but it would need to be demonstrated. Alabama AML is using older version of AutoCAD because of the cost of purchasing a newer version. Arkansas uses their own AutoCAD/SurvCADD copies they have purchased. Good to see the Career training path developed. Need to coordinate training travel plans to the TIPS

training coordinator. OK Title V needs large format scanner for their maps (Mike has offered to print for them). Would like a new digitizer

Mike Sharp (NAAMLPL)

Minimum program states could not function without TIPS. Without TIPS we would not be able to afford anything

Using their own licenses for AutoCAD/SurvCADD

In March the Association through KY sent out a survey on TIPS only half responded.

Most requested was the AMLIS TIPS GPS class. With re-authorization this class may be requested more often (discussed in Baltimore – business networking session).

Not currently a TIPS course/class.

Indiana reports online training delays in getting courses and they would like instructor training follow-up.

More discussion is needed to explore a custom GPS tool in AMLIS.

Continue on-site workshops.

A tablet computer was delivered to the wrong Illinois program, but that issue has been resolved.

Future equipment deliveries should be done by an accompanying expert in its installation and use.

Oklahoma title V still needs a large format scanner. Title IV has offered the use of their scanner but title V has not yet accepted that offer.

We encourage OSM to support full-time Service Managers in the Mid-Continent and Appalachia similar to the method used by OSM's Western Region.

OSM Constituent Report Panel

Roy Morrison (HQ-CIO)

No current problems with off the self software everything is on the approved software list.

John Craynon (HQ-PSD)

AutoCAD is the TIPS software that they will be able to use Current software needs are being met.

Training at headquarters has mainly been filling in open slots

Bob McKenzie (AR)

StratiFact and Rockworks research took an inordinate amount of time...would like to see that kind of thing happen a little quicker.

Atlanta Geospatial Conference brought up a lot of success stories and would like to have a true life blog for those.

SurvCADD under going a parting of the ways with AutoDesk. SurvCADD is going to ship with TeleCAD and may have an additional cost

AMD Treat proposed by USGS floated through as a tech transfer project important for our region to follow through with this proposal used for trust funds and acid mine treatment PHREEQ and AMD Treat two methods that can calculate titration precise cost for the amount of neutralization to add to the water. The PHREEQ will take the

titration and model net acidic discharge. PHREEQ is complicated to use, but will add an extra button to AMD Treat to automatically do the titration. Currently this is priority #2 for this region. This project would cost \$75,000.00 the first year and another \$75,000.00 the second year. The \$75K will include software, documentation, and training.

With the help of TIPS they were able to donate a workstation to Maryland.
Bringing up a Geospatial server

The Committee has given their support to set adding PHREEQ to the AMD Treat Modules and Bob McKenzie will be pursuing the correct procedures to make this happen.

Need a blog for TIPS

Len Meier (MCR and MCR FO's)

MCR is concerned with finding a better way to distribute software instead of using 5-7 discs sent out to the states, tribes and OSM through the mail. Major firewall concerns with sending out through the network and the current system may be the most efficient way. Vendors will also need to be contacted to give their approval with sending software out through the network

Training program working well would like to look for a consistency for instructor per student/class will follow up with course manager.

Small classes 5-6 students put together within a 1 to 2 month lead time

Cellular and wireless delivery in the field

Regular up-to-date information for remote sensing

Still working on band width for server because it is so slow

Tom Galya (AR FO's and KFO)

No Earth vision training since 1995 under the Unix environment. Will not have a class on Earth Vision but would consider sending interest parties to vendor training.

Check-out licenses and have the software installed on a laptop. Need Key Server check-out licenses.

Need on-site training in the Charleston Field Office for Mobile computing to include downloading maps

Monies for PC Tablets (2) Explorers (may be able to do through refresh)

Need quarterly LiDAR information

What can TIPS tools do in development of Mine Pools

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

CFO utilizes AutoCAD and ArcGIS software to integrate mine annual report maps and remote sensing imagery into the CFO geospatial database (GIS).

CFO plans to investigate the modeling and spatial data analysis tools available in ArcGIS. This will enable CFO staff to perform slope analysis from electronic AutoCAD

files representing the reclaimed topography, for determining bond release compliance.

In conjunction with the OSM Remote Sensing Pilot Project, CFO anticipates utilizing software to analyze and interpret information available from high resolution satellite data for use in SMCRA business processes. Software for analysis and feature extraction from high resolution imagery will be researched for use in vegetation classification and mine map feature analysis and extraction.

Various image compression software including ERDAS Imagine's Mr. SID module, will be investigated for compression of aerial and satellite image data into file sizes that can be utilized with Mobile Computing software.

CROW

The Crow anticipate needing software to view remote sensing products. They are aware of the TIPS training program and anticipate utilizing it in the future to help attain Tribal Primacy and in training new staff. They utilize the Geo XT in day to day operations and find it extremely useful for locating features for future reference. Anticipate using remote sensing for future reclamation tracking.

NAVAJO

The Navajo use ARCGIS and endeavors to develop a GIS database in the future. The Navajo have participated and will continue to participate in TIPS training. They did state that they have run into problems with their equipment. These problems in turn cause training retention to slip away since the skills are not being used in a timely fashion. They continue to utilize GPS units and they are very helpful. They have found problems with the availability of upgrades.

HOPÍ

The Hopi also use TIPS training for personnel and will continue to do so. They continue to utilize the GPS units, although not on a day to day basis. They are in need of the thermal imaging camera for use at a coal fire.

ALBUQUERQUE AREA OFFICE

The AAO uses ARCGIS in conjunction with hardware on monthly inspections. All FOB inspectors have taken TIPS training in ArcGIS. Three FOB inspectors received on-site ArcGIS training. The two day training provided hands-on experience for the inspectors in working with the types of data they collect and/or use on a regular basis. The FOB inspectors continue to regularly use the GPS units and software provided by TIPS as part of their monthly inspections. They have proven to be an invaluable tool. The inspectors continue to regularly use the GPS units and software provided by TIPS as part of their monthly inspections. They have proven to be an invaluable tool. Inspectors make regular use of remote imagery supplied by TIPS. This information is used in conjunction with the WR GIS to facilitate inspections as background for developing inspection reports. However, there is a need for more current and timely processing and availability of imagery in order to facilitate evaluation of contemporaneous reclamation at the mines. The FOB fully supports

efforts to work with the NGA to make imagery available on quarterly basis, at a minimum.

CASPER FIELD OFFICE

One CFO staff member is a Trimble certified trainer and TIPS training instructor.

He provides GPS\Mobile Computing hardware and software technical support, and instructs TIPS GPS and Mobile Computing courses.

During the past year the CFO staff member participated in the course development of ArcPad 7.0 and instructed two scheduled TIPS training classes:

GeoXT, TerraSync and PFOffice: Mobile Computing for Reclamation, May, 2007, at WR

ArcPad 7.0 – Mobile GIS for Reclamation Mapping and Analysis, June, 2007, at AR.

He instructed the GPS/Mobile Computing portion of the highly acclaimed Wyoming Permitting E-Tools Workshop held for Wyoming DEQ/LQD in Casper March, 2008.

He is scheduled to instruct the scheduled TIPS training class - GeoXT, TerraSync and PFOffice: Mobile Computing for Reclamation, May 20-22, 2008 at SIPI in Albuquerque.

As a member of the TIPS Mobile Computing Team, one CFO staff member serves as the TIPS contact for TerraSync mobile computing/GPS data collection software and troubleshoots problems from State/Tribal/OSM TerraSync users nationwide.

CFO inspectors continue to track stages of reclamation as it occurs in the field (contemporaneous evaluation of reclamation) by recording geospatial data in the field with Mobile Computing/GPS hardware/software. TerraSync, ArcPad and GPS Pathfinder Office software are used by CFO inspectors in conjunction with Trimble GeoXT GPS units and Tablet PC configured with GPS receivers to record geospatial data. The data is integrated into CFO's geospatial database to provide a method for tracking future bond release areas to aid in expediting the bond release process. As a member of the TIPS Mobile Computing Team, one CFO staff member evaluates and prototypes state-of-the-art mobile and geospatial technologies to facilitate monitoring and documentation of mine reclamation compliance with SMCRA.

CFO utilizes the TIPS purchased CalComp map scanner to scan paper AutoCAD drawings of mine maps. The scanned image is then georeferenced using ArcMap. The georeferenced image is then integrated into the geospatial database and is often transferred to Mobile Computing software for use as a background for navigation during mine site inspections.

This technology recently proved invaluable for an AFO inspector detailed to assist with the inspection workload in CFO. A CFO staff member was able to create shapefiles of certain individual polygons where problems with satisfying the requirements for phase II bond release were encountered. The shapefiles were

derived using ArcMap from polygons represented on a scanned paper copy of an AutoCad drawing file (since an electronic version was not supplied by the mine permittee). The shapefiles were then transferred as a background map to TerraSync software on a Trimble GeoXT. This enabled the inspector to navigate to the applicable polygons on the mine site for further phase II bond release evaluation.

Field Test of the Ricoh GPS Camera – the camera does have some applicability but is lacking for use by FOB. The camera does appear to reference photo locations accurately. The image quality, however, is poor even at the highest resolution.

Clear, sharp photos are a must, especially when enforcement actions are taken.

The FOB collects GIS data on a regular basis and needs to carry a GPS unit that will allow collection of lines, areas, and points. A unit like the Topcon GMS-2 has much more applicability for this office and would provide the opportunity to carry only the one instrument instead of two, GPS unit and camera. A field test of the Topcon is recommended.

One CFO staff member represents CFO on the WRTT Team, and presented “Casper Field Office Utilization of GIS & Mobile Computing to Track Reclamation in Support of Bond Release” at the WRTT Annual Conference held in Salt Lake City, UT, April 24-26, 2007.

Service managers are out and actively visiting the Tribes and Field Offices to satisfy our business needs.

Utilization of high-definition color imagery has proven invaluable for CFO staff in determining mine plan compliance, for inspection planning and for inspection with mobile computing. Prior to conducting field inspections, inspectors often view imagery integrated in a GIS, overlain with permit boundary and mine plan layers and discover areas deeming closer examination in the field. Utilization of orthorectified high-definition color imagery loaded on GPS-enabled mobile data collectors (i.e. tablet PC, Trimble GeoXT, PDA devices) enables inspectors to navigate to the areas on the ground, identified as needing closer examination. In addition, the orthorectified high-definition color imagery is utilized by inspection personnel who are tasked with evaluating and tracking the stages of reclamation as soon as practical after completion of each stage (contemporaneous evaluation of reclamation).

One CFO staff member is a member of the TIPS Remote Sensing Team. He represents the WR on the OSM Pilot Project with USGS and NGA involving utilization and evaluation of satellite data to be obtained from NGA’s commercial remote sensing program.

In conjunction with the OSM Remote Sensing Pilot Project, CFO anticipates utilizing software to analyze and interpret information available from high resolution satellite data for use in SMCRA business processes. Feature extraction software will be researched for use in vegetation classification and mine map feature analysis and extraction from high resolution imagery.

Steering Committee, St. Charles, MO

Thursday, May 15, 2008

Strategic Thinking Summary/Actions *(what actions, how, resources needed)*
Please see Appendix C for complete responses

Topic #1: Geospatial Tools & Application Strategy

- What tools need development
- What resources are needed
- How do we do it

Suggestions for committee will come from the following members: Julian Calabrese, Larry Evans, Len Meier, Joe Taranto

Action Item: Form a team to address issues

Topic #2: Software Distribution

Like to work with the service manager and not the IT people directly. Streamline the process, distribute software to the contacts and have the service manager follow-up. More electronic avenues and the less hardware could be more productive.

- Distribute Software
- Install
- IT Support
- Ability to use

Action Item: Task to the success teams involving IT create website modify existing one where customers can go to download the software. Take all of their software and address with the vendor how they can download. Software Manager will need to contact the vendor for a copy of license or a letter from the vendor that their software can be put on a website and downloaded.

Software manager will notify the service manager that they have checked for updates. Use the same website for this information. Start with software that can be loaded onto this website and continue to work with the other vendors for permission.

Clear documentation on how to install software. Ability to have hard media for those that still request it. Distribution on demand and notification that the software is available.

Have processed mapped and will give to the Committee next year. (Dan)

Topic #3: Role of TIPS in NCMGC

- Current Activities – TIPS
 - Training and assistance
- Future Plans

National Coal Mine Information System
State/Tribe/OSM clearing house
Develop Field GIS tools
TIPS Role Pros/Cons
Independent Pros/Cons

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.

Annual Strategic Plan Charter Actions

Last year's Steering Committees recommendation to change the Service Manager's roles, were made and the Charter has been updated and approved.
No changes to the Charter or Strategic plan and they are approved as is

Dan Rivers – Web 2.0

Three major concerns

- Storage and band width
- Skilled employees
- Innovation

World Wide Web created by DARPA as tool for DoD and Universities – Web 2.0 is self healing, evolving, information rich database.

The big opportunity...Social Networking: Better search, more targeted adds, smarter collaboration, deeper integration, richer content, better personalization.

Lou Hamm - Meeting Summary

Dan Rivers - Team functions well because of positive attitudes and an equality of all fields. The answers are in this room.

Steve Trujillo - Better idea of where the funds are going. More insight with what is involved with all your programs so I can help.

Bill Winters - Teamwork that's what makes it happen and this one functions as a true team. New faces at the table and they are a welcome addition

Trish Smith - Whole overall experience of what the committee does. This meeting has given me a better understanding of what everyone does. Reading about what you all do doesn't give a total perspective.

Paul Clark - People in this group get out what they put into it and a lot of good things have come out of these meetings. This team can be adaptive, flexible, and insightful on areas.

Julian Calabrese – (Neil Harrington) I have learned a lot about TIPS and its support group and how we highly under utilize it people and resources. Everyone here is willing to share ideas and communicate. We will need to have a better connection with Service Managers.

Billie Clark – This is TIPS 21st year and this will be my 9th meeting they are very productive and I appreciate those who have stepped in. New blood is interesting and we hope to see you again

Mike Sharp - TIPS is living up to their charter and continues to be on the leading edge on what tools are out there that we can use to integrate and bring together. I appreciate all the work that this group does. If I could only attend one meeting a year it would be this one.

Mark Schlimgen – I applaud the TIPS staff for receiving the input and taking it to heart and then making the changes that we have asked them to make I don't know if I could have been a part of a virtual meeting. By the time that level of technology is incorporated I hope to be retired. Because I would miss the camaraderie of everyone being together there is nothing that can replace that.

Greg Melton - Karyn's speed dating brought up some good brain washing and we got some good ideas the importance of the service manager is going to be even more vital to the program. We have a living charter that can change and adopt we should realize we've all got a dog in this fight.

Joe Taranto - Thank you for accepting me into the group. I was a little bit intimidated before I arrived. I hope that I was able to contribute. Great group the expertise and knowledge is amazing. In general for my state, it is amazing how much we depend on TIPS and how much TIPS provides to the state. I'm not sure what we would do without TIPS. After reading the minutes from the 2007 meeting I was intimidated about all the 07 information and then follow up to this year. I have learned a lot and it has been an eye opening experience. PA will try and put more effort forth through instructors and involvement with TIPS.

Karyn Evans – I always look forward to working with this group. I will be taking back ideas for improvements.

Bea Hill – I saw the dynamics working in this group and understand better how the direction we have taken has helped the states.

Bill Card – I've learned a lot about Lewis & Clark. This is a great group nothing like this with other groups very motivated and proud to be here it is a pleasure to work with all of you

Tim Wilson - Interesting that we have been able to bring together a community of engineers and to have an organization there is not another like it anywhere in gov. always feel privileged to be part of the group and my input is valued.

Bob McKenzie - It always amazes me at how this group works towards continuous improvement for this program things are implemented right away.

Tom Galya - Quite amazing to see from this perspective. I have attended courses and used software, will take awhile to swallow all the information and try to get the message across to the field office which is different from headquarters (roger Calhoun)

Ervin Barchenger – I continue to be impressed and like the energy and synergy of the group. Everyone is looking to improve the SMCRA, educate other executives in how we can use this better in our day to day work. What interest does TIPS have and how we can be of interest to TIPS

Len Meier - Seeing the dedication is encouraging a whole lot of ideas and energy and states and tribes are willing to commit in a team environment. There is opportunity for everyone.

Larry Evans - The biggest thing is a good perspective of where we are going to take our perspectives and to understand the direction for the foreseeable future.

John Craynon - Great to hear what is going on and how headquarters can be a part of it. I will come away from this meeting more energized and see the possibilities.

Appendix A

Icebreaker: Three wishes; what changes would you make?

To the Steering Committee

Quarterly SC Meeting/teleconferences
Picture Directory of the Steering Committee
Flow-chart-TIPS Management Process – need a clear image on what and how the business functions
Individual State/Tribe Participation/attendance
More state participation
All the states and tribes have a vested interest
More AML representation more tribe rep
Stable group of representatives
Knowledge of TIPS Applications – penetration into the state programs
More end users present – better balance
Teleconferences (Mid-year)
Two Tier (Technology sub-team)
More involvement from Steering Committee members

To the TIPS program

Eliminate slot Program – first come first serve for TIPS classes
Refine reduce TIPS priorities/Initiative
Two day classes versus 2½ day classes
More R&D technology finding according to SMCRA
More emphasis on GIS and Geospatial
More communication
State to TIPS
Availability
Interaction of Service managers
Penetration of TIPS Message
Enough FTE's to cover the program
Fully integrate TIPS and NTTP program
Better Software Distribution – website for all applications
National Geospatial program
Timely Software replacement
Increased support on hardware and software rollouts
 - show how to use and set-up
Service Managers
More contact with professions
State involvement of IT personnel
Quality not necessary Quantity
On-line software updates

What would you do with unlimited resources

Complete bank of TIPS tool in each region

Video Classroom

Administration Staff

Hardware

Hiring Admin assistance

Enhance the training facilities

- computers have a hard time keeping up with the software

Customize Tools

Database management system

Re-open TIPS hardware store

Satellite for TIPS

LIDAR UAV

Custom software application

Automated business process – make sure TIPS tool are related to the Business Process

Increase TIPS Staffing

TIPS Store – Plotters Scanners

More timely software replacement

Appendix B

Steve Trujillo – Budget Report

Appendix C

Business Networking Session

Geospatial Tools and Application Strategy

Bill Winters – Facilitator Summary

Defined functions needed:

Determine accurate field location

- Data collection

- Point polygons

 - Offset/locations (high walls)

Office based tools (blue marble)

- Coordinate system transformation

- Map management & manipulation (ArcGIS light)

Remote Tools – UTM or UAV

Data Management tools

SMS software mgt system

Resources:

Technical personnel

- Programmer (2 levels)

 - ARC objects programmer/ArcPAD

- Software specialist/hardware

- IT Person

Installation documentation

Developmental Tools Integration

EDN Subscriptions

- Education development network

- ARC Pad

- Developmental copies

C-Sharp

Net

Power users

Other Federal agency coordination

NCMGC, DOD, USGS, Homeland Security

How?

Develop current tool inventory – user groups, states, vendor, agencies

Discuss platforms

- Hardware/software

Facilitate communication

- Power users

- General user community

Survey to States (ranking needs)

Dream team – sponsor

Prototype

Applications team – who sponsors?

Tools:

Google earth

Visualization tools

Data tools

- AMLIS dictionary (standard)

- AML dictionary

Data collection (point/polygon) combined/universal

Imagery

Camera w/compass

Offset (customized tools) – high walls

Remote tools – UMV

Discipline specific tools

Office based tools (blue marble)

Software Distribution

Paul Clark – Facilitator Summary

Problems

- Large size of apps

- No IT resources

- Delays in transit of software – too many people in process

- Vendors – licensing issues

- Bandwidth may not support downloads

- There is a need for check out licenses (when not connected to the network)

Solutions

- Post instructions as early as possible before software is sent out

- Eliminate as many “middlemen” as possible

- Direct down load over internet

- Notify users of update criticality & extent

- Notification of upcoming updates and current status fo software

- Timeline – communication

- Shorten test time as much as possible

- Establish time limits on software manager for assessments

- Communicate constantly – no news is not good news

- Utilize super users” as much as possible with success teams

- Eliminate use of discs/hardware

- Download from software library via FTP or internet

- Some delay is not necessarily a bad thing – balance

- States & TIPS people need to work together for testing

- Stand alone copies of software for backup/emergency

- Many different management processes being used

- Work through state/TIPS contact not directly with IT people

- Have OSM assigned IT experts who work with the states or service managers

- Installation instructions version specific – consistency

- States are ahead of TIPS in some distributions

- Differing versions cause compatibility issues

- Use of SMS or automated “push” of software works well

- Not all states do this and TIPS does not do this across the board

Library of software & version (current & future release dates)
Shipping of HW is an issue-electronic transfer is more favorable

The Role of TIPS in NCMGC

Len Meier – Facilitator Summary

Current activity a good fit

Plan for National Coal Mine Data System/Network
Network/Clearinghouse/Service

Good goal

Central source for public

Address \$ by proposing a new initiative

OSM is right organization

Public need the data

Appropriate extension of TIPS

Not good goal

States should be primary sources

National Map should be national source

State clearing house state/regional source

OSM might begin mandating use of layers

Standards from a good base line states will add fields as they need

Take a lot of money from TIPS or elsewhere

Do not dilute TIPS core

TIPS role in National Coal Mine Data System

Pro

TIPS has expertise/organization structure

OSM has other good models NTTT/ARRI/TIPS license mgt

TIPS charter can be modified

TIPS role if expanded to managing NCMGC

Dilutes TIPS core mission

Regions are more appropriate

Need money and FTE

TIPS could support without owning the system

TIPS is not operations

Could over whelm TIPS

Computers with TIPS core mission for money

May have to be funded as new initiative

Go before leadership