GEOSPATIAL TASK GROUP

Meeting Notes from Anchorage Alaska Meeting July 29-31

Attendees:

Susan Goodman, BLM- Chair
Brian Sorbel, NPS – Vice Chair
Skip Edel, Western State Representative – Colorado
Sue McLellan, Eastern State Representative – Florida
Ken Bottle, FWS – Member
Joe Frost, USFS – Member
Luther Arizana, BIA – Member
Andrea Olson, FWS, IRMWT Liaison
Dorothy Albright, USFS – Technical Advisor
Tim Hammond, BLM-AFS – Guest
Brad Cella, NPS – Guest
Jeff Barayani, ESRI - Guest

Agencies Summaries

Eastern States

- Southern Fire Risk Assessment is holding an initial meeting in Southern Alabama for the13 states with Space Imaging who was awarded the contract. This assessment will be using the NLCD 1982 data set for fuels.

- Florida Fire Director, Mike Long has accepted a position on the LANDFIRE board and there will be an individual from Minnesota on the technical committee.

- FIMS – Florida Information Management System has been used since the beginning of July. This system was created using ESRI's mapobject and is a tracking incident system that includes smoke dispersion modeling.

- Sue McLellan is running an analysis on communities at risk susceptibility. Categories will include high, medium, and low. This will be done by the Fire Congress, which will be held the week of November 17, 2003 in Orlando Florida. Analysis will be done in the next months and the report following the analysis work.

Western States

- Skip Edel is working with ESRI on developing a wildfire hazard risk decision support tool for interagency fuels treatment planning along the Front Range. This effort is called the Front Range Fuels Treatment Partnership with National Park Service (NPS), U.S. Forest Service, and Colorado State Forest Service.

- Started up GIS support for Rocky Mountain Area Coordination Center (RMACC). Tracking fires in the Rocky Mountain Geographic Area.

FWS

- U.S. Fish and Wildlife (FWS) created Promise Teams. This is an internal exercise to support the mission of the FWS. One of the newest Promise Teams is dealing with GIS coordination throughout the FWS.

- FWS would like to hold GIST and Fire GPS training at NCTC, West Virginia. Request to have it at 2005. Ken Bottle will contact Don Wasco regarding request.

BLM (Update provided by Tim Hammond)

- BLM is working on geospatial wildfire strategic plan. Wildland Fire needs have currently been left out of the Bureau Architecture. There is an effort to incorporate fire's needs into the architecture. Bob Bewley, Tim Hammond, Kate Belinda, Tony Anderson, Dave Wilson, Janis Reimers, Susan Goodman are the team that is putting together the BLM's geospatial wildfire strategic plan. Janis Reimers is the lead on this effort.

- BLM has identified State GIS leads for wildland fire in every state office and plans on holding quarterly meetings and/or conference calls.

- Tim Hammond is working on getting funding to update fuels layer in Alaska. The fuels program in fire turned down a request last year because Alaska does not use National Fire Danger Rating System Fuels (NFDRS) Classification NFDRS. Instead, Alaska uses Canadian Fire Danger Rating System (CFDRS). Alaska is wondering how CFDRS will fit into Fire Program Analysis (FPA). This will probably be an issue. More information on FPA can be found on http://fpa.nifc.gov/.

- Remote Sensing Applications Center (RSAC) – Alaska cannot get MODIS imagery quick enough for their needs, and is working with University of Alaska; Fairbanks to get MODIS data an hour after it is captured. Some of the remote areas in Alaska, fires are being discovered by MODIS data and this has really help monitor and locate these fires. Attitudes are changing towards remote sensing.

USFS

- Working on setting up a system to correct Forest Service fire occurrence data's latitude and longitude location using an extension to Personal Computer Historical Analysis (PCHA). Task order to create this extension to PCHA went out last week. More info on PCHA can be found at: http://www.fs.fed.us/fire/planning/nist/pcha.htm.

- Emergency Incident Symbols are circulating from FEMA.

- List of representative from each agency for homeland security.
- Forest Service is working on Geospatial Strategic Plan; it will encompass all programs, not just fire. The Strategic Plan team is looking for interagency input for this strategy. Forest Service will be working with Jim McGinnis of NILS and Joe Frost for an interagency perspective

- Talking with ESRI taking regarding township/range/section (TRS) conversion to latitude and longitude to nearest quarter/quarter.

- ICS Mapping Tool will be tested through the Forest Service software testing process. Methodology will be documented for the baseline tool set. Custom modules could be tacked on to the ICS Mapping Tool. Vestra is creating a module for California.

- In California the Forest Service contracted with Delta Cases to create custom made plotter boxes. ERRA is renting computers with GIS software and Forest Service in California bought 250 gigabyte external hard drives to dump all data to these drives that is available. Data will also be available at ftp.nifc.gov and http://wildfire.cr.usgs.gov.

- FIREPAS (fire plan assessment stabilization) – Currently the State of California has no money because of budget short falls. This million dollar project is falling apart because of State of California budget. Hoping to move FIREPAS over to USGS to finish this project.

- Dorothy Albright moved to Oregon. Joe Frost is detailed to FPA for 45 days and Dorothy will be filling in behind Joe while on detailed.

- Southern California has a huge number of forested acres that have been killed by bugs. Because of this Southern California is expecting fire to be catastrophic in the bug killed areas.

- Forest Service put in request to Congress to create an interagency team for technology. This will include buying GPS radios, PDAs, satellite links, and two FEMA radio trailers. It is estimated that this will cost $27,000,000 for each team.

The focus will be that Type 1 teams use this equipment and in addition it will be available for Homeland Security use.

BIA

- DOI could possibly shut down the internet again. Because of the original shut down, BIA's Fire Program purchased 100 laptops. There is still confusion regarding internet shut down.

- BAER – Luther Arizana worked on the Kinishaba and Encabelo Fire. Satellite imagery for Forest Service fires is requested through RSAC and DOI fires request coverage through USGS' EROS Data Center and the contact is: Randy McKinnely. New procedures have worked out really well. There are individuals on the BAER teams that do follow-up work on the imagery. BAER teams use ArcView or ArcGIS. Turn Around is pretty quick.

NPS

- Park Service GIS conference will be the first week of December in Orlando, Florida – The interagency community is invited. More information can be found at the following link: www.nps.gov/gis/oydyssey/schedule.html.

- NPS Fire History Project – The purpose of the project is to develop point and polygon fire history GIS layers using the NPS standard.

- Alaska NPS – There are 16 National Park unites in Alaska that cover 15 million acres. The National Park Service and Fish and Wildlife manage 2/3 of acreage in the state of Alaska.

- Fire History Polygon from 1950 to 2002 is maintained by Alaska Fire Service (AFS) at ftp.... Most Alaska wildfires are caused by lightning. South of the Alaska Range some fire are caused by humans. Interior of Alaska is black spruce and northern portion of the state is tundra. Moss and duff layers can be 16 to 20 inches deep.

- Alaska Interagency Fire Management Strategy provides guidance and 4 deferent levels of fire protection. Fires are assigned one of the following options:

    - Critical
    - Full
    - Modified
    - Limited

- Alaska Statewide Fire Management Zones designate agency responsible for suppression.

- 91 percent of NPS in Alaska is in limited suppression. Most acres are fire use acres. Park service averages 15 fires per year that encompass 60,000 acres per year. 80 percent are caused by lightning.

- Because of the Alaska Native Claim Act all Native Allotments receive full suppression.

LANDFIRE - *presented by Dorothy Albright*

Dorothy Albright is the USFS Deputy Program Manager for LANDFIRE, yet no permanent position has been advertised yet.

Presently LANDFIRE is funded by DOI.

LANDFIRE addresses contemporary fire management concerns:

- resource allocation for treatment
- optimization of management alternatives
- ecosystem rehabilitation and restoration
- firefighting safety
- agency accountability of performance targets

Resource allocation is the most important. Dr. Z gave presentation in Alaska regarding LANDFIRE and presented it as a USGS research project

In 1999, 1 km fuels map project was accomplished, but it was determine that the data was too coarse and project did not include data for Alaska and Hawaii.

List LANDFIRE products.

LANDFIRE is not an application but delivery products. Is designed to provide programmatic level data. LANDFIRE is a partnership with the States and if defined as a broad partnership with the States. It will not replace fuel maps. The project has had a difficult time moving from research to a program. Currently there is no business lead.

Action Item: Provide IRMWT with a letter from the regarding LANDFIRE that the GTG cannot support this effort because there is no business lead, etc. GTG needs to part of the review process to LANDFIRE. LANDFIRE needs a charter and a full time project manager and a business lead. Suggest that the PMO could provide help with the LANDFIRE charter. GTG needs to provide be able to send peer reviews out to the field on the Fire Regime Condition Classes (FRCC). Prove the scientific basis. Application and data needs to meet field user requirements.

IRMWT needs to negotiate with NWCG and WFLAC and demand those spatial requirements are included in all projects upfront when applicable. Then project managers could detail and/or hire a GIS specialist to coordinate the spatial requirement.

Data Standards – *Brian Sorbel led discussion*

Brian handed out a draft Interagency Fire History Standards and asked what attributes should be mandatory or optional?

- This discussion led into the newly formed IRMWT Fire Statistic group. GTG needs to be represented on the group. It's important that issues such as datum are addressed within this group.

- Unit Identifier - DAWG has already done that data standard

- Need to educate the field user why certain attributes are important. How does members of the GTG communicate this? Need to go out and working with individuals in the field.

Proposed Interagency Fire History Polygon Data Standard

- Interagency Fire History Polygon Data Standard proposed to group by Brian Sorbel, Joe Frost, Sue McLellan and Janice Reimers; The attributes and field definitions were obtained by comparing existing USFS, NPS, BLM and California Fire History data standards; 11 fields describe information about the fire; 5 fields attempt to describe how the fire perimeter was collected.

Interagency Item Definition
UNIT_ID (Character, 7)
FIRE_YEAR (Character, 4)
FIRE_NUM (Character, 8)
FIRE_NAME (Character, 34)
FIRE_TYPE (Character, 2)
GEN_CAUSE (Character, 2)
SPEC_CAUSE (Character, 2)
OWNER (Character, 1)
DISC_DATE (Numeric, 8)
OUT_DATE (Numeric, 8)
REPORT_AC (Number, 12.2)

METHOD (Character, 50)
SOURCE (Character, 50)
TRAVEL (Character, 24)
MAP_SCALE (Character, 24)
MAP_DATE (Numeric, 8)

- The GTG decided that it is not currently possible to propose and establish interagency data standards for GIS layers through the DAWG; the DAWG's current data standards process pertains more to individual data elements and is not applicable to defining standard for GIS layers.

- The GTG will develop a white paper recommending that the DAWG adopt the USFS GIS Data Clearinghouse template for proposing and defining interagency GIS data layer standards.

- Data Standards proposed are solving the short term issues. They meet an immediate management need. The future may be data warehousing.

- GTG needs to provide predefined personal geo-databases that can be download which include the data standard.

- Present Wildland Fire GIS data standard process to IRMWT. Will use Forest Service standard.

- Latitude data standard will propose at next IRMWT meeting

Action Items:

Develop a white paper describing obstacles to establishing GIS data layer standards and recommended solutions: Brian Sorbel, Joe Frost, Janice Reimers, Sue McLellan

Submit data item standards to DAWG for Projection, Datum, Map Scale, Map Units, Latitude and Longitude: Brian Sorbel, Joe Frost, Janice Reimers, Sue McLellan

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FPA – *presented by Joe Frost*

Currently two GIS layers have been identified: Fire Management Unit (FMU), the Fire Planning Unit (FPU), and dispatch location. This will replace current FMU and Resource Location. This GIS data would be owned and maintained by FPA.

Doug Stephens and Ed Delaney are also working on FPA. One person from each agency will design the plan and all the other information that the FPA needs.

- What is available at the local level to do fire analysis? (GIS skills and data available).

- Identify the road blocks for each agency and identify the issues and funding needs to solve these issues.

Action Item: Joe Frost will send out a memo to agency representatives. Asking for the following two items:

- One product would be each agency report of GIS Skills and data available.
- One product would be data standards

Dan Keller is creating a FPA communication plan

There are two layers that FPA will need by October 1, 2004 to get these layers. What are the barriers of getting these layers?

13 Southern State will have the most core data because of the Southern States Risk Assessment.

FPA will not be able to use ROSS dispatch location because list is incomplete. Dispatch location is all areas for example where an air tanker could be propositioned.

States need to have State Representative on FPA because the States will be using this planning tool. Currently States are not involved. Communication is occurring with Don Artley. States are not required to participate as OMB requested that this was just for Federal Agencies.

GTG reps need to get to know FPA representative.

Action Item: Joe Frost will develop data standards and data models for FPA and GTG will review for the two core data layers. Joe will create a Geodatabase.

Action Item: GTG needs to be on Quick place – Joe Frost will make sure this happens.

Joe Frost plans to work with FPA project managers for 45 days and then will assess what help they need with the geospatial data requirement.

Pocket Guide – *presented by Skip Edel and Ken Bottle*

A 3”X5” size was decided on. Victoria Smith, Skip Edel, and Ken Bottle had a conference call. The field guide was reformatted to smaller size.

Large Format is on the Forest Service Fire GIS website:

Action Item: Skip Edel will get input from a wider audience regarding pocket guide. Skip will establish a working group for the pocket guide that will be driven by roles and expectation of GIST.

Skip will ask Alfie for his pocket guide.

GIST White Paper to IRMWT to IOSWT

Action Items: The items need to be completed on this white paper:
All items need to be completed by October 16, 2003.

- Dorothy Albright will rewrite the Introduction and background
- Dorothy Albright and Sue McLellan will provide a new task book. Luther Arizana, Sue McLellan, Skip Edel, and Dorothy Albright will work on Task Book requirement including what should be in the kit.
- Brian Sorbel will rewrite current problem statement
- Add disadvantages and advantages to each option – To be completed by all GTG members.
- Paper needs to focus on differences between GIST and DPRO in the task book. GIST should focus on technology aspects.

Action Items: Create another issue paper that will address geospatial technology within all current ICS positions.

Phase II of Investigation *of Geospatial Support of Incident Management Proposal*

- Susan Goodman will send out proposal to GTG members and comments should be returned to Susan by August 20.

- Dorothy will be ambassador to University of Montana Researchers and coordinate Phase II field efforts.

GTG recommends that the study encourages a balance between technology and social aspects of this study.

Strategic Plan

One of GTG strategies could be that GTG reviews all IRMWT projects to see geospatial technologies are included.

Action Item: Andrea will check with a contractor that specializes in developing strategic plans for the April GTG meeting.

2004 Action Plan

- Develop a interagency fire geospatial strategic plan
- Propose data standards for history and fire perimeter.
- Submit issue paper on GIST to IRMWT
- State representative would conduct meeting with all state GIS coordinators.

ESRI Wildland Fire Solutions – *presented by Jeff Baranyi from ESRI*

Advances in ESRI products

- ArcGlobe
- GeoProcessing in ArcInfo (Model Building – conceptual models and just share the model between agencies. Write scripts, etc.
- ArcGIS Server

Modeling tools have been greatly enhanced.

- Different functional areas are built into the data model, Will be component based and dynamic.
- Sue McLellan suggested that ESRI build a data model for fire similar to the forestry data model.

Symbol Sets

The Symbol set that is in the Fireline Handbook was distributed via various email lists. It was decided by GTG not to hold up the Fireline Handbook for digital symbols, but to incorporate digital symbols in the next update.

Action Item: Ken Bottle will be liaison to work with a sub-group of the GTG to come up with a standard symbol set for fire. Through official channels GTG will ask the following individuals to help with the symbol set: Karen Folger, Ann Rysorkora, Luther Arizana, Joe Appleton, and Victoria Smith. These symbol sets should be embedded into ArcGIS. The goal of this subgroup will be: To come up with proposed mapping symbols for incident mapping support. Sticking as closely as they can to the Fireline Handbook.

Fire Congress – *Presented by Sue McLellan and Dorothy Albright*

Action Item: Andrea will ask IRMWT about funding State Registration Fees

GTG will facilitate the session:

- Skip Edel and Dorothy Albright will facilitate Monday's session
- Joe Frost and Ken Bottle will facilitate Tuesday Morning
- Brain Sorbel and Susan Goodman will give GTG presentation
- Sue McLellan and Dorothy Albright will set up Agenda.

GTG members need to sign up for the fire congress and pay registration fees.

Action Item: Sue McLellan will find GTG meeting space for November 16 GTG meeting.

GTG Website

Items on website that need modified**:**

- Eliminate password to get to page
- Put password on upload form
- Skip, Liz, Ken, and Susan will manage content
- Link to GeoMAC
- Link to ftp.nifc.gov
- Link to USGS upload
- Link to USGS data
- Link to ICS tools
- Link to DNR Garmin
- Link to GeoMAC perimeters
- Link to GTAG

GTG Brochure and Charter

The group spent time at the meeting working on text for new GTG brochure and Charter. Brochure will be available at the Fire Congress in November. New Charter will be presented to IRMWT in October.

Action Item: Susan Goodman will finalize the charter with Allen Dietz and Barry Mathews of the PMO office. A signature page needs to be added to the GTG Charter.

Meeting and conference call dates for next year:

Conference Call
September 15, 2003; 11:00 AM MT

Conference Call
October 24, 2003; 11:00 AM MT

Fall Meeting
November 16, 2003 at Fire Congress in Orlando, FL (1-5 PM)

Conference Call
January 21, 2004; 11:00 AM MT

Spring Meeting
April 20-22, 2004, Boise, ID

Conference Call
June 15, 2004; 11:00 AM MT

Summer Meeting
September 14-16, 2004, at FWS National Training Center