

## FIRESCOPE GISS Workgroup Meeting

### Face 2 Face Meeting Notes

March 15-16, 2012 (Version 0.02)

FTP site: <ftp://ftp2.fs.fed.us/incoming/r5/FAMSAC/Firescope/>

FIRESCOPE GIS SG site: <http://www.firescope.org/specialist-groups/gis/specialist-gis.htm>

**Attendees:** Chris Ingram (Santa Clara County Fire), Kris Higgs (CAL EMA), Lorri Peltz-Lewis (USFS), Chris Waters (CAL FIRE), Rich Strazzo (CAL FIRE), Mark Rosenberg (CAL FIRE), Marc Hafner (CAL FIRE), Chris Castillo (Santa Barbara Fire), Bruce Schubert (Emxsys),

Previous meeting notes (December 2011) – accepted

Next meeting April 3, 2012 – 1-3 PM Conference Call

#### **Announcements:**

- CAL EMA may be facing a name change again. RIMS contract has been awarded to WebEOC.
- S-341 Class discussion – may not need another class next year. Discussed training priorities, recently held class, April Intermediate class, DECISION – hold further discussion until Oct/Nov after we have a better picture of the fire season and we review the USFS and CAL FIRE training needs assessments regarding this course.
- ASPRS (American Society for Photogrammetry and Remote Sensing) meeting in Sacramento (<http://www.asprs.org/>) – March 19-23, 2012 – TFRSAC (Tactical Fire Remote Sensing Advisory Committee) meeting on March 20<sup>th</sup> – Lorri, Mark R. and Rich will be attending and will report back.
- NHD 1-day Hands-On Workshop – March 20<sup>th</sup> held at the Wildland Fire Training Center (WFTC), McClellan CA. Webinar email sent out to FIRESCOPE team on Saturday March 18th.
- CalGIS 18<sup>th</sup> Annual California GIS Conference (<http://www.urisa.org/calgis/info/>) being held in Sacramento from April 11-13, 2012 – Lorri is presenting on the FIRE GIS Lab activities. Attendees will report at future meetings.
- Intermediate GISS training April 17-19, 2012 – nominations open now: [http://www.surveymonkey.com/s/2012\\_GISS\\_Intermediate\\_Training](http://www.surveymonkey.com/s/2012_GISS_Intermediate_Training)

#### **Liaison Updates (Marc Hafner):**

- Membership - discussed membership updates (additions of Chris I and Chris C), Lorri has had 3 others approach her interested in this, but no applications have come in yet. Discussed need for additional members and issues with the size of the group. **ACTION ITEM:** Mark R. will reach out to Paul Hardwick (NPS) about joining the team.
- Task Force is working on getting the FOG out.
- The Task Force wants the GIS SG to sit on the IMWG (<http://www.nwcg.gov/branches/pre/nrf-nims/dhs-fema/dhs-fema.htm>). This will include working on symbology and other GIS issues. **ACTION ITEM:** Lorri will look into who the contacts are with this.
- CAL FIRE Incident Command Teams changing names to Incident Management Teams (IMT) – teams are being reduced and geographically distributed.

**Charter & Plan of Work Review:** Reviewed and discussed charter and changes to the Plan of Work – agreed to do reviews prior to the next meeting and agree upon an updated plan of work for 2012 at the next meeting. Discussed emergency management and incident operations and the possible need for a team to address EOC GIS issues – will revisit this at the next meeting. Plan of Work items underway:

- FTP Issue Paper – Lorri and Rich will contact Marva in NorthOps to have her change the folder naming convention to match the national standard. Lorri will complete a draft of the FTP Issue paper as well.
- All Hazards Issue Paper – Lorri has the draft almost done. This will be sent out soon for review. The Plan of Work needs to drop the item requesting this team to completely rewrite the GSTOP to include all hazards. Instead this team should be working with DHS/FEMA on those standard operating procedures.
- USNG Issue Paper – Lorri has received the CAL FIRE USNG paper. Lorri will write up an overview of this from previous discussions for review. Chris Castillo has implemented USNG in Santa Barbara and will provide input.
- GSTOP – Rich Strazzo discussed the updates for Chapter 2 and 6. These have the biggest change in them. Chapter 2 is completed with many name change elements. Chapter 6 the changes include:
  - STANDL SGD (Scale, Title, Author, North Arrow, Date, Legend, Source Statement, Graticule/Grid, Datum)
    - Source Statement discussion - Why is this needed when the date/time is in the title or legend – is this insufficient? This source would be the source of the data – perimeter, FOBS, etc. Federal National Archives and Records Admin requirements discussed. This may be more important on digital maps which are continuously updated (via NICS) where a hover over capability may be needed to understand when a feature was captured. Using maps after incident have resulted in confusion on what the source of the data is. This would be helpful when using the data archival. Map information should consider the needs of the user. Users don't need to know when the perimeter data were created. Need to define user. Discussion resulted in no consensus.
    - Separation of standards from optional items discussion – some wanted these separated out, others did not see the need with the way the language was written. Discussion resulted in no consensus.
  - Standard vs. Optional maps – this should be re-addressed. Air Ops maps should not be a standard map this should be an optional map. Discussion was parked – comments will be provided for final review expected fall 2012.
  - Plans maps discussion – appropriate base background should not include orthoimagery as a base – ortho and shaded relief should be optional. Discussion:
    - Topographic base is the only accepted map base, Orthos could be used with shaded relief and/or contours, landmarks, etc. The decision is up to the Situation Unit leader. Topo maps are very old at this time – missing roads and other key landmarks. If newer topos maps become available these should be used, but Orthos could still be used as a mashup. – no consensus reached.
  - **DECISION** – all comments will be gathered from this meeting and from GISS' using the draft GSTOP this season for submittal to NWCG GIS SubGroup in the fall of 2012. No other comments will be submitted from FIRESCOPE on the draft GSTOP effort. The GSTOP draft and requests for tracking comments from the field will be sent out as soon as the GSTOP draft is available for field use.
- Fire Identifier & Occurrence data issue paper – on hold until Kirsti Fong and Carl Palmer (CAL FIRE) can get documents together for CWCG. Kristi Fong is leading an effort to gather ignition data using a CFMA agreement. This will provide a single database for ignitions across California and be maintained in a similar manner as the Fire History database. **ACTION ITEM:** Mark R. and Rich will get with Kirsti on any outstanding comments.
- Data Sources Issue Paper – need to revisit this one.

**National Fire Danger Rating Areas (NFDRA):** Chris Waters reported on the Fire Weather Handbook (7800 Manual) re-write effort. NFDRA is used at CAL FIRE for determining dispatch level and other fire business decisions that require use of weather/climate to set thresholds. Fire Danger Operating Plan development – many units are not doing this anymore.

The Fire Danger Rating Areas need to relate to the Units to dispatch local units, not based on statewide boundaries.

These are being updated over the next couple of years with the following elements:

- Evaluate FDRA data – begin training and process from the national class into California to support development of the plans
- Conduct pre-development and analysis to support this (CAL FIRE will likely request assistance from FRAP and USFS)
- Develop inputs for the FDRA's and provide to Units – lead the Units through a process to generate the FDRAs
- Work toward getting CA back up to speed with the rest of the US – need consistency statewide in CA
- Accept and test – support and understand this process by the national fire community
- Department has adopted and Chris Waters will lead the Fire Weather Working Group effort to assemble the FDRA's across the state. Any previous efforts to develop these will be reviewed – timeline next 12 months.
- Need to use the ROs and WIMS again to assist in making these decisions.
- Discussed issues with protecting powerlines, power grids, etc. on the landscape.

**Symbology NAPSG Review:** Rich Strazzo – continued review of the documents provided by NAPSG & DHS/FEMA to develop standard symbology for all hazards symbols. Using criteria set in the November FIREScope GIS SG meeting including simple, able to hand draw, able to photocopy in black & white, etc. the team completed the comments on the NAPSG document. See Rich Strazzo's NAPSG document loaded to the FIREScope FTP site. **ACTION ITEM:** Lorri will complete the wrapping document for this feedback effort in the Symbology Issue Paper and get this out for review. The goal is to have this to the Task Force within a month!

**Fire Retardant Avoidance:** Lorri Peltz-Lewis – discussed the data gathering effort for the Threatened, Endangered, and Sensitive species for USFS Region 5. Data was gathered for the entire state using the USFS NRIS, CNDDDB, and FWS Critical Habitat under consultation with USFWS in California. The EIS was released this past fall proposing 3 alternatives. USFS management is meeting and working with many agencies across the state including CAL FIRE to resolve policy issues. The USFS Washington Office (WO) maps have been released to the USFS at this time. Cartographically they have lots of problems – color, format, font size, etc. The data from the USFS WO has not been officially released. Lorri and Patti Krueger (USFS TES Coordinator) are tracking issues and events. Once the data is released there will be other map products developed for the field to use. Many of these options include:

- Maps at multiple scales – currently the PDF map atlas using the USFS WO maps are in PDF format – field would like better colors, easier fonts to read, forest-wide maps, GeoPDFs, etc.
- Digital data – Lorri has tested iPads for the Air Attack team in Redding. The iPad is connected to a DualGPS unit for enabling a mobile-like map. There are notes, how-to documents, and a 10 minute overview video available at: <ftp://ftp2.fs.fed.us/incoming/r5/FAMSAC/GIS/>. This may be a solution for some, but not for others. Lorri is working with a team at NIFC developing requirements, identifying issues, support, security, etc. Currently the iPads being testing in USFS Region 5 are WiFi and under a technical approval. The USFS is conducting testing on enterprise units integrated into the USFS security systems – these present the possibility in the future of integrating into the ELA software and could present some excellent opportunities to provide data to remote locations with caching on any local device.
- The impact is currently only to the USFS – management is discussing policy issues and working with agencies in the state.

**NICS/LDDRS:** Marc Hafner – lots of potential, but many issues to resolve. NICS this season will be operational, not run through the OSTACK (what is this?) process, but now has momentum and should be approved of. Marc is the new chair of the FIRESCOPE R&D committee. Meetings will be held on the OSTACK process. CAL FIRE is interested in having DHS S&T funds continue to support this. Once the R&D is completed the software code will be released as open source. There will be a digital map based command and control system coming to the FIRE service. CAL FIRE will use this some this season, but how will be determined and more are interested in using this. Security is an issue, locking maps are a concern, having correct base data is necessary, input and output of shapefiles is needed, tracing, importing GPS, etc – many issues the GIS team identified last year have not been resolved. Use on the Kern last year found that this was successful, but also identified issues that need to be resolved. Intterra is another solution, but does not have the same capabilities as NICS and the ease of use this system has.

**NASA Wildfire Application:** Bruce Schubert (<http://www.emxsys.com/>) – presented the software tool he developed using NASA World Wind mapping interface for Wildland Fire Applications. This integrated the software application based on The Campbell Prediction System: A Wildland Fire Prediction and Communication System. It was developed as free open-source software for the wildland firefighting community. Bruce demonstrated how the tool teaches and integrates fire behavior characteristics. He has extensive experience in fire and is now a software developer working with Doug Campbell integrating his methods and other widely accepted modeling systems. The flyer at the bottom of these notes provides additional information – Bruce recently presented this software application to NASA. The review was favorable, lots of potential use for pre-fire and during incident analysis. Many future updates are being included NetCDF formats, military symbology (Military Standard 2525), integration of fire behavior observations, field photos, possibly twitter feeds, etc.

**Fire History:** Mark Rosenberg discussed this standard database, attribution in California, due dates, update process, etc. The update for 2011 is due out soon – goal is to get this out by March 1<sup>st</sup>. All fires that meet the minimum size requirements will be included, but these requirements vary with each CAL FIRE Unit and agency. Some agencies capture all fires greater than 10 acres. Lorri discussed the problems with getting in data from the USFS this year. Only one forest was way behind. This has been resolved and the database should be done very soon. There are still outstanding problems with containment date. USFS collects data out, but not containment date in their FIRESTAT database, but this is on the 209's. This problem will be documented in the metadata for the database this year.

**NWCG Data Standards:** Lorri discussed the history and background of this effort for the new members. Just this week Kathie Hansen (NPS) has started the review process of the new data standard with the NWCG members. NWCG Data Standards team is moving ahead on integrating a new website for maintaining data and information regarding standards. This effort will help streamline the GIS effort. The overall goal is to have standards for fire related geospatial data that is not agency specific that all of us can use and extend as needed. There are also many possibilities of integrating long term into software ELAs that would be beneficial.

**GISS Hard Drives:** Lorri and Mark R. reported on the history and ongoing updates for the GISS Hard Drives.

- Plans for this year – USFS Fire GIS lab will call back all hard drives, wipe them, and reload with updated data. Goal is to have the drives out to the lead GISS on Type I and II teams by May 15<sup>th</sup>. USFS will take the lead this year and have to FRAP a drive by the end of April.
- Data – layer files and metadata have been dumped out for every database on the last drive. Many databases were updated or uploaded due to a variety of needs. PBS missing or miss-named quads should be fixed, prefer

to have data in CA Albers NAD 83, but as long as the projection is defined the data is included. MXD templates for NorthOps and SouthOps are being included. PDFs for standard maps are also on the hard drive.

- New items added this year – S-341 class Student CD, new software, NHD updated, soils data, ownership data, USFS Forest GDBs, etc.
- Contact Lists – Lorri has gathered GIS contact lists from BLM, FWS, and USFS – still need NPS and CAL FIRE. If we can get local contacts that would be great as well. Maintaining these is an ongoing problem – many ideas – this year we are just going for updated contact lists. The ones we have are from 2004.

**Contract Computers & GIS Software:** Lorri continues to work on the contract computers and printers for USFS Region 5. This year a contract is being let to get 6 companies on board for supporting this effort. Lorri showed the specifications for the computers and printers, including plotters and a scanner this year. The software this year will include: ArcGIS 10, FIMT, Xtools, CAL FIRE tools, Google Earth, Export to KML, Core FTP, ArcGIS Explorer, ET tools (free), Landfire, etc.

Next meeting April 3, 2012 – will plan on having a demo by Intterra or WebEOC. Plan to be ready to accept notes from this meeting and review Issue Papers!

Adjourned!

---

#### **2012 Meetings –**

- April 3, 2012 – 1-3 PM
- May 1, 2012 – 1-3 PM
- June 5, 2012 – 1-3 PM
- July 3, 2012 – 1-3 PM
- August 7, 2012 – 1-3 PM
- September 4, 2012
- October 2, 2012 – or Face 2 Face?
- November 6, 2012
- December 4, 2012