



MSGIC Quarterly Committee Meeting
 January 15, 2014 | 9a.m. – 3:30p.m.
 Coppin State University, Baltimore
 Health and Human Services Building



ATTENDEES:

Executive Committee:

Mark Helmken		Chair
Julia Fischer	MD Department of Information Technology (DoIT)/ GIO Office	Chair Elect
Jim Cannistra	MD Department of Planning (MDP)	Past Chair
Theresa Martin	City of Laurel	Secretary
Matt Webb	Anne Arundel County Government	Local Government Caucus Chair
Erin Lesh	MD State Highway Administration (SHA)	State Government Caucus Chair
Roger Barlow	US Geological Survey (USGS)	Federal Government Caucus Chair
Marshall Stevenson	Whitney Baily Cox Magnani (WBCM)	Private Industry Caucus Chair
Patrick Callahan	Prince George’s County Government	Data and Resources Subcommittee Chair
Ashley Buzzeo	Center for GIS at Towson University (CGIS)	Outreach Subcommittee Chair

Members / Guests:

Mark Barnes	Morgan State University	Linda Loubert	Morgan State University
Michael Bentivegne	Towson University, CGIS	Patrick McLoughlin	Spatial Systems
Allan Blades	Axis Geospatial	Ryan Mello	ESRGC
Jim Blakesire	Geocentric	Russell Provost	DoIT
Frank Boylan	Student	Anthony Puzzo	ESRI
Cole Brown	MD State Police	Erin Silva	ESRGC
Mary Buffington	ESRGC	Matt Sokol	MD DoIT
Jose Diaz-Garayua	Coppin State University	Calvin Strozier	St. Mary's County Government
Kaushik Dutta	MDTA	Navneet Sushon	Dewberry
Tom Earp	RK&K	Mussie Tewolde	DJS
Sandra Fuentes	City of Kyattsville	Jim Thomas	Coppin State University
Bud Gudmunson	Washington County	Alan Travis	Phoenix Engineering
Logan Hall	ESRGC	Al Wainger	Baker International
Kevin Holmes	US Census	Austin Williams	Baltimore Metro Council
Chris Knight	GeoComm	Tim Williams	City of Hagerstown

Site Sponsor: Coppin State University

Continental Breakfast Sponsor – Courtesy of Michael Baker International



Welcome and Opening Remarks – Mark Helmken – MSGIC Chair

Remarks from Site Sponsor – Dr. John Hudgins (Co-Director Center for Spatial Data Analysis) -
Postponed to the afternoon.

New Michael Baker – Al Wainger

- Company based out of Pittsburg, PA.
- Now [Baker International](#), a private company.
- 6 thousand people worldwide with offices locally in Alexandria & Baltimore
- Corporate Principles include delivering innovative and sustainable solutions.
- MBI Family of companies
- Expanded its capability through an innovative Aerial and Mobile LiDAR (Light Detection and Ranging) systems.

MSGIC Business

- Executive Committee Meeting
 - Meetings are open to all and occur the second Tuesday of each month.
 - Usually at AACO offices but occasionally done virtually
 - Positive response to way group is moving.
 - Caucus and Subcommittee chairs have been reaching out to members to gauge what matters are important.
 - Asked for a show of hands for those currently receiving communications, particularly the *E-news* blast that went out Monday.
 - Will use sign-in sheet to update email list
 - Executive Committee is busy working on the transition to a non-profit organization.
- Financial Report – Doug Reedy (Frederick County, Treasurer)
 - New Sponsors & Organizational Members
 - 5 members or more for your organization cost effective to get organization membership
 - Draft budget will be posted on website and will be driven by revenue coming in which are dues.
 - Encourage members to pay dues which will drive what the group does and how.
 - Working with tax consultant to confirm accounting practices are appropriate.
 - Awaiting exempt organization status.
 - Advised by IRS that application has not yet been reviewed.
 - Treasury Report shows balance at \$9,383.26.
 - Most income from sponsorships & memberships.
 - Expenses mostly from PayPal transaction fees.

Question: Are there other state GIS committees similar that we can model from?

Answer: West Virginia and NY State. At least 10 states that have similar non-profit structure and we have looked through them all, including their policies and budgets.

[TUGIS Conference](#) - March 18th, 2014

- Last call for presentation (Jan 15th)
- Get in touch w/Virginia Thompson or Mark Helmken if need additional time to submit.
- Partnering with Towson University and DoIT.
- Underwriting part of the plenary breakfast.
- MSGIC responsible for session moderators & conference volunteers.
- Conference sessions will mostly have 3 presentations each and scheduled for the same time blocks to allow people to move around.
- Will also need Booth Volunteers.
 - Display donated by ESRGC
 - Group working on putting the Booth together and materials
 - Will be in the Non-Profit area
- Early bird registration (\$60) ends Feb 7th

Question: Do you know when papers submitted will be accepted?

Answer: 5-7 days prior to early bird registration end date.

Action Item: Tari Martin to update Executive Committee contact list.

MSS/MSGIC Joint Committee

- Group started following a LinkedIn discussion on projections & datum's
- USGS going to a new Datum in 2020.
- MSGIC wants to get out in front of the issue.
- Executive Members will attend initial meeting end of January likely at RK&K.
- Common needs exist between communities (Survey & GIS)
- A good opportunity for our groups to collaborate.
- MSGIC will be providing more information on the topic and MSS will be presenting at TUGIS on this topic.

Communication

- [Website](#) – all things MSGIC
- Maintained by Outreach Subcommittee, chaired by Ashley Buzzeo.
- E-News Update sent out by Chair (sort of monthly)
- Started by previous Chair Jim Cannistra who sent out blast following Quarterlies
- New [Blog](#) on website
- Patrick Callahan first feature for "On the Maryland Map".
- [MSGIC LinkedIn](#)
- [Twitter](#) – another opportunity for people to receive information @MSGIC_MD
- Part of MSGIC role is communicating and advocating.
- Looking for feedback on these efforts.
- Subcommittees and Caucuses have been reaching out.
- Data & Resources Committee:
 - Have met and are working on revamping what the group is and does.
 - D&R group has met once and will be meeting at lunch today
 - Took mission that was outdated and made updates.

- Received some comments & changes from executive committee and looking for it to be voted on at next Executive Committee meeting.
- Putting together Charter which calls for short and long term goals.
- Asking for input from membership on ideas or needs for data both short & long term.
- Creating a Sub-Subcommittee on Elevation.
 - Roger Barlow (USGS) asked for help on the upcoming LiDAR capture.
 - Have put a lot of Sandy funds into capturing LiDAR into most of the tidal regions.
 - Has expanded to include additional counties.
- Marshall Stevenson, Chair of the Private Industry Subcommittee – have gotten some feedback but not a great deal
- Lauren McDermott – Education Subcommittee will be meeting via phone or WebEx next week.
- These groups are still soliciting for active participants.
- A place to take issues or concerns as well as for wins members are making in their organizations.
- Will be sending out a packet with By-law changes
 - Have been going thru and identifying changes, sometimes just verbiage.
 - Will be sending out all these changes at once to avoid sending out piece-meal.
 - Verbiage for maintaining a budget does not currently exist so will be added.
 - Important members contact information is current to participate.
- Dues – 90 day window for accepting 2014 membership.
- Those not current by then will become contacts that will receive information but will not be able to vote or receive MSGIC specific membership benefits.
- Non-paid members will be moved to a contact list who will continue to get general correspondence.
- No one will be locked out if dues are coming or planned.
- Reach out to Doug if payment in the works in your organization but may not make window.
- Options to send check or pay via PayPal.

Announcement: Linda Lovert (Morgan State) – Month of March – [Storybook of Women in GIS](#)

Asked for members to email names of women in the GIS field. They do not have to be from Maryland.

<Networking Break>

MSGIC picking up the parking tab for meeting – Did head count for those who parked in paid lot C

- Erin Lesh, Status Caucus Chair
 - Has been emailing out to members
 - Mostly been getting out of office, please do not include me, only got 2 responses with real issues.
- Matt Webb, Local Government Caucus Chair
 - Also been sending out emails and also getting very little feedback.
 - Looking for issues to bring to MSGIC from locals.
- Anthony Puzzo (ESRI) – Two events next week; 1/22 @ UMBC – ‘strengthen your GIS skills’ training seminar from 9 till noon; Meet up in DC Thurs 23rd in China Town on Social Media Analytics; FedUC – State & Locals can use their allotted user conference passes for the User Conference for FedUC.

Project Reports

[GIO Report/ MD iMap Updates – Julia Fischer \(DoIT\)](#)

- MD-Esri ELA – State Agencies contact service desk (DoIT)
- Esri K-12 ELA – MD public and private k-12 schools (schools, teachers and administrators)
- <http://imap.maryland.gov/> website for more info
- Co-sponsoring TUGis Conference with MSGIC & Towson University
 - Cosponsoring breakfast with MSGIC.
 - Barney Krucof, MD GIO, will talk during the Plenary
 - Mark will also talk during Plenary on MSGIC, what the group is about and doing and will be a good opportunity to gain membership.
 - 10 people on the panel *MDiMap 2.0*
 - Data, migration, LiDAR, Centerline information (Erin & Marshall); Application Template (Charles Co) Doug (how it's been used in Frederick); Russell (addressing) CGIS (geocoder)
- Application Template has been updated
 - Available for anyone to download and use as their foundation thru [GitHub](#)
 - Standard look and feel and tools are available
 - Hoping it will be a collaborative effort so if users make any enhancements or create any tools they are asked to share back.
- State Employees can access template thru AGOL
- Portal Updates
 - Added centerline tab.
 - SHA has been visiting counties and regional groups
 - A lot of their work has been initiated at the federal level
 - Consolidated Q&A from DoIT as it pertains to Software and a general FAQ tab
 - Added new interactive application in Online Maps including Trail Atlas, Veterans and others.
 - Another opportunity to market your apps just asked to provide a thumbnail.
 - A new State Web template
 - Responsive Design, New layout, more intuitive
 - Hope and anticipation it will be unveiled at TUGIS
 - 'Maryland Mapping and GIS Portal'
 - ESRGC putting in new section on LiDAR that they will be hosting on their web servers and providing services to MDiMap
 - Adding feedback forms. 1 – for state employees needing AGOL account. 2 – geocoder experience.
 - Newest layer is from Russell's addressing project

Question: Is there a way to provide your spreadsheet used to geocode

Answer: Likely this first phase will be to type in issues encountered. Would be something that could be looked into the future. Additionally working on a feedback loop to the localities where the errors occurred.

Question: DEM in products in 10.2?

- Yes, but backward compatible
- DEM geodatabases available
 - Have county wide grids
 - Similar to map services page
 - Can select an area to download

Question: How many members (attendees) are on 10.2?

- Well less than half.
- MD iMap Executive Committee
 - Next meeting 2/21 – Joint meeting w/Open Data Portal Team (Closed)
- MD iMap Technical Committee
 - This meeting is open
 - Frank Ciano has stepped down and Kaushik Dutta has taken his place

Federal

- Collection of LiDAR – Caroline County - completed, Dorchester County underway; St Mary's, Charles & Prince George's Counties – Sandy supplemental capable of producing 1' contours DEM deliverable
- Connecting up w/Montgomery County who has completed their acquisition and will be sharing with us
- Panel discussion for TUGIS – 4 agencies Census, Farm Service, NRCS & USGS
- Federal contribution to the west of the Chesapeake is on.
- Erin Silva created a LiDAR status graphic current as of last month - one by county and one by watershed.

State Projects

- Aerial photography flown in 2013 for Eastern Shore is complete.
 - ESRGC will serve as a further distributor channel
 - Is in the public domain
 - Loaded in iMap
 - MDP has copies as well
- Now have coverage of Bay water area
- 4 different map services that have the imagery represented on it
- MDES 2013 Edit Calls – Summary of total # of those doing independent QC
 - Had about 213 errors or less than 20/county
- Starting Western Shore
 - Over past 2 months have been going thru RFP process
 - MDP & DoIT will serve as project managers
 - Will be looking to counties to provide some QC support
 - Acquisition beginning late February
 - New procurement has allowed for the integration of new technology
 - Ultracam – new camera allows to fly higher, get larger footprint and get same level of resolution and accuracy.
 - Exposures: 34K in 2011 vs 17K in 2014
 - Flying higher allows for less building skew?
 - Buy-up options available
 - 3" vs 6" resolution
 - New True Orthos
 - Planimetric Mapping – different pricing available for counties w/different needs
 - All detailed in the RFP
 - Oblique
 - LiDAR
- Land Use/Land Cover – 2 options Update or remap (at much higher resolution)
 - Buy-ups impacting image acquisition need to be submitted by 1/30 – let Jim know directly first

- Buy-ups contracted interested agency

Question: Does the LULC fit the current MDP schema. 1st option NAIP based level of resolution to accuracy relevant to the 6" ortho's

Roger Barlow (USGS) –

- Learned yesterday MD 2013 leaf on 4 band now available through Fort Worth contact and should be publically available through them
 - Action Item:** Julia Fischer to send out through MDiMAP info.
- People should rely on USDA for 2013
- ESRGC will be purchasing NAIP so should be available through them.
- Also working with SHA
- Can discuss if there is a desire to put on MDiMAP.
- Original thought unnecessary since available thru USDA.
- Parcel Data
 - Some may require MOU's – 2014/2015
 - MDP Parcel data products
 - Hoping to make available free of charge, thru service, via MDiMAP, as well as enterprise gdb for state agencies.
 - Had letters of support from MSGIC and DoIT
 - Hoping will be included in Governor's Budget which will be announced later today
 - Understanding will be highlight item indicated it will be a priority
 - Next step as group & community will be to defend that
 - Budget meeting end of month.
 - May be looking for additional letters of support

Question: Is this available to Universities?

- Anything available in MDiMap is freely and publically available
- Not a full set of features are available for download and access
- Some data available for county parcels
- Ongoing project working with counties to integrate w/MDP's data

[MD Statewide Addressing Initiative – Russell Provost](#)

- Worked w/Matt Webb and Local groups to launch data extraction application
- Draft process in place where each county connects thru geodata service and data is standardized
- Cascading geocoder 3 sources – Address, Parcel, Centerlines.
 - Also has mile-markers, place names, etc.
 - Works great searching single addresses for apps online
 - Twice as fast in 10.2 environment for batch geocoding
 - Now also available as the default geocoder for MD's AGOL account. Can still select ESRI's geocoder.
 - Graphic showing improved accuracy (thanks to local government provided data)

Question: Place Names – Where does this data come from?

- GNIS or State Highway potentially
- As far as municipality came MDP on MDiMap Community anchor names institutions

Question: Are you providing feedback to the counties?

- Yes, more on internal consistency on the data. Mostly on any massaging of the data. Did not make any changes. Smarty streets which runs it up against USPS which shows for example that a primary address is accurate but should have these sub addresses or address should have this zip code.

Question: What about addressing for non-Maryland.

- Will get kicked out.
- Have been in talks with Delaware which have been positive.
- Hope to have a regional geocoder in the future.

Additional Federal Updates

- Census Bureau – 2013 population estimates released on Dec 30th
- American Community Survey release about a month ago (1,3 & 5 yr)
- Naomi speaking later - Federal Government going to Data.Gov
- Geographic Side – integrating locally provided data.
- Version 4.0 of Tiger Web – focuses more on geography

Presentation #1

Making the 2013 Marine Corps Marathon Map

Presenters: Jim Blakeslee – President & Founder ([Geocentric](#))

- Geocentric is a MD startup company based in Bethesda.
- Very first little bit of money came from the University of MD Dingman Center for Entrepreneurship.
- Company is a graduate of the Silver Spring innovation center.
- MD is the best state to be an entrepreneur.
- We help people find restaurants to go to or find a bathroom if running a marathon
- Enable people to publish their own data
- Typical clients are offices of tourism and midsize cities like downtown Silver Spring.
- Also get asked to do Easy-to-use web based content management system, specialized for geographic content, designed for use by destination district organizations.
- Locals know the data and the info the best. Ex: Entrance is actually on a different street than the address.
- GIS Vector data in to Flash engine Avenza map publisher
- Originally proposed this to MD but they said what they really needed was MD Scenic Byways
- Core has always been destination efforts
- Different from Google Maps in that it utilizes cartography to differentiate areas instead of looking the same.
- Can highlight and focus on specific areas and features.
- When a good interactive map is added like the one for Crystal City Shops it tends to get a lot of use
- Did a map for an Emergent neighborhood in DC which spawned the Nationals to ask them to do a interactive map on getting there and parking.
- Database for everything around University of Philadelphia but go little use
- On phone can do search based on proximity vs alphabetical order
- Push same info out to phones but formatted for mobile
- Downtown Norfolk project just wanted a mobile app already had web
- Waited for iPhone to adopt flash so could do cool maps
- Asked for map created for Marine Corp Marathon

- Primarily a print map
- Recommended putting on the web
- Tool used was TileMill – Take shapefiles and create custom tiles sets
- Goals for Marine Core Map
- Marathon took place in DC and Arlington
- DC has all of their data available for free download.
- Had to physically go to City of Arlington to get data burned onto a DVD.
- Critical when doing a website that it is responsive
- New devices are constantly coming out with different screen sizes.
- Tile map – code shows
- Easy /simple to use
- Data from shapefiles is still there for labelling etc.
- Can use leaflet (almost no code to implement) or Mapbox

Dr. Hudgins – Department of criminal justice. Primarily to serve faculty research needs. Hope to be reaching out to community groups in the future and to groups like MSGIC.

<Lunch>

Presentation #2

[Federal Government Open Data Initiatives](#)

Presenters: Noemi Mendez Eliassen – Information Services Specialist (US Census Bureau)

Video Clip – OpenData.Gov

- Website is one stop shop for multiple data sources

Question: Where does the link to MD take you?

Answer: Data.Maryland.Gov

- Multiple search Tools available.
- IE the better browser for website.
- Census website will be changing and will be more topic based.
- Topic search – ex: “ArcGIS”, “sandy damage”
- Developer Hubs by agency.
- Pushing their API and have been active in civic hack-a-thons, mostly as subject matter experts.
- Their API’s provide new methods of data access and dissemination.
- www.census.gov/developers/ for those interested in using API to request a key.
- Most recent American Community Survey 2008 – 2012 summary files which go down to the block level and includes health insurance data
- ACS 1-yr and 3-yr profiles and estimates available
- Info on Geography available on website.
- App Gallery – some done internally some done by the public using Census data
 - *Easy Stats* – Uses API. Simple tool for getting data quickly.

- *My Congressional District Tool* – similar to *Easy Stats* but compiled to the 113 congressional districts geographies.
- *Census Explorer* – Just released online GIS type system to query and find data.
 - Maps American community survey tool.
 - 5-yr ACS and 1990 and 2000 Census data.
 - Made in conjunction with Social Explorer
- *Local Employment Dynamics* – Mash of unemployment insurance data from state unemployment offices with census data.
 - *On The Map* tool – Information down to block level on who is working in an area, jobs that are there, income, race, etc.
 - Can do various analysis and includes maps and charts that be pulled into reports.
 - Can export geography or import your own geographies.
 - Can create your own neighborhood and get that data.

Question: If neighborhood created crosses a block, all of the data included? Yes

- *America's Economy* – Real-time statistics on 20 key economic indicators from Census Bureau, Department of Labor Statistics & Economic Analysis.
- *Dwellr App* – Gives suggestion for people looking to relocate based on criteria.
- If you have the API in your app, data is automatically updated.

Presentation #3

[The role of GIS in Next Generation 9-1-1](#)

Presenters: Chris Knights – Regional Sales Consultant (GeoComm, Inc.)

- Chris Covers the Mid-Atlantic region
- Trying to educate GIS and public safety folks on the importance of geospatial data and its public safety applications.
- Polled audience on locals and those that supply GIS Data to public safety.
- Data prep for 911 Centers and PSAPs ongoing similar to what Russell is doing in the GIO's office
- GeoComm – Only does Public Safety GIS
- ESRI Platinum Level Partner – One of only 11 in the world and the only one with a public safety focus.
- GeoComm Highlights –
- GIS Data report card – analysis report that will help localities or states compare their GIS data and understand their suitability for NG 9-1-1
- Call Routing Today Phone numbers are tied to a physical address and automatically assigned to a PSAP
- For wireless devices – band aid approach has been used to accommodate
- What is NG 9-1-1?
 - Refers to an initiative aimed at updating the 9-1-1 service infrastructure in North America to improve public emergency communications services in a wireless mobile society.
 - Unofficial definition but sums it up in a nutshell
- Difference w/new system for subscriber contacting 9-1-1
 - Routing based on geospatial components (lat/long), that will go back & communicate w/system to route to correct PSAP.

- Session Initiation Protocol (SIP) – Digital voice, data and location information that comes in on the call.
 - For example, a witness to an accident can send a picture of an accident, or streaming bank robbery video from security camera – theoretically there is capability for that.
 - Ongoing discussion whether dispatch centers want that data
 - (11) Baseline NG911 requirements, 4 of which are geospatial.
 - GIS will be a critical component of which there are (4):
 - ECRF/ESRP geospatial call routing
 - LVF/LIS authoritative location validation
 - GIS data creation to support ECRF/LVF, and associated GIS management tools
 - Publication of Authoritative NG9-1-1 Routing for state and regional levels
 - Emergency Services IP Network (ESInet)
 - Location information pre-stored in database and predetermined before any calls are made.
 - Incoming calls are validated against this database in milliseconds
 - Location determines which PSAP call is routed to.
 - Backup PSAPs predetermined as well and are sometimes within the same county or a neighboring jurisdiction.
 - Upper red box in the corner of slide reserved for the state level and what their role may be depending on the state.
 - Required GIS Data (%40 of a successful 9-1-1 call).
 - Service area boundaries – mostly already done here in Maryland.
 - Data for Validating and Routing Civic Addresses
 - Parcels not required but helpful – Good to know who owns a property
 - GIS to replace Master Street Address Guide (MSAG)
 - Database that holds information based on physical address
 - Will remain for a long transition period but will eventually go away.
 - Each location will determine what GIS data they supply to their PSAPs.
- Question:** What do you see as the gaps in what they want and use. Most have points and streets with address ranges and building points if not polygons.
- These are what is considered standard and even more and more is imagery and oblique imagery.
- Question:** Can you speak to the attributes that might need to be added for NG911 that aren't already
- Good topology, left side/right side but awaiting NENA standards for further guidance.
- Question:** What are the implications for some counties moving forward and others not.
- Very scalable. Can be a few counties in a region. Locals should appreciate a statewide infrastructure that can develop that they may be able to leverage.
- Question:** Are there any guidelines or industry best practices on data? MSGIC looking to help facilitate updates to data particularly to areas that have building footprints that are 10 years old. Is there was an industry standard to what is minimally acceptable?
- NENA and NSGIC are resources for recommendations. Will look to see if there are any published documents that speak to minimal age of data.
- Question:** Address points possibly less important as we move to a more wireless society?
- Wireless calls will still be validated to a physical address but even as land lines go away will still be important.
- Spatial Router for 9-1-1 networks – new component for NG9-1-1.
 - Data management applications or DMS tools.

- Key is having a workflow process: Knowing the sources of GIS Data, Who are the addressing authorities, Who are the local 9-1-1 authorities, What role do they play and How might they be incorporated into a regional or statewide system.
- Ideally daily updates that would take in local updates in an automated process.
- Could be based on the sophistication of the user
 - Server based web tools to ArcGIS for server for power users

Presentation #4

[How the Search and Rescue Community Uses 6" Ortho and 3m DEM to Find Missing Persons,](#)

Presenters: Coleman Brown – Maryland State Police, Erin Silva – Senior GIS Analyst (Eastern Shore Regional GIS Cooperative/ESRGC)

- Maptech is now Mytopo
- Developed desktop and mobile mapping software, [Terrain Navigator Pro](#) that contains hi-res USGS topos.
- Went to seamless maps and then to 3D
- Use Garmin 401 navigators which allow for dual coordinates system and is set for tracking.
- Dogs now have collars along with handlers and searchers
- Sensors – searchers, helicopters, people w/handhelds, night vision goggles
- Use maps with topo and orthos
- SAR GIS Google Group – National group
- Technology takes time to deploy. After 4 hours will deploy it.
- MapSAR – low end tool set from ArcGIS based on the Sierra Madre SAR Team and Park Service
- IGT4SAR – allows it to collect data and gets into behavioral and spatial analysis
- Can do predictive modelling based on Lost Person Behavior historical data
- Disconnected working environment
- With this data can look at cell phone and radio propagation
- Use a vhf radio
- Can look at cell phone data. Can see when lost service and map with elevation data to determine loss of coverage area.
- US National Grid is the Standard Reference - big factor after trooper 2 helicopter crash
 - Secondary – Lat/Long DD-MM.mmm(1)
 - Global Area Reference System (GARS) – resource box only so many
- ICAO/IMO –
 - Set SAR standards internationally
 - Geo-Referencing Coordinates
- Maryland US National Grid Map –
 - Print on their command vehicle.
 - Typical map has lat long in the right format
 - USNG magnetic declination
 - Has the right datum nad 83 or wgs 84
- Case Study
 - Looked at Slope;

- Track Offset linear feature – missing people tend to be found closer to linear features;
- Mobility Model – Based on time shows where someone could have walked;
- Fence-line Data and driveway data;
- Search Probability Map – where should resources be placed in a potentially large search area;
- Segment (Search).
- 3.5 – 4 hrs per 100 acres including briefing and de-briefing.
- MotionX GPS – They have iPad's and iPhone's with data loaded
- Incorporating GPS tracks from collars and searchers
- Most searches are less than 6 hours.
- MD is the only state that had to write a law to overcome the legend to wait 24 hours.
- You are supposed to report a missing person and they are required to enter it immediately.

Contact Info:

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New Business & Adjourn