

Meeting Description: Michigan Geographic Framework Users Meeting

Date: February 7, 2002

Time: 10:00 a.m.

Location: Michigan Information Center, George W. Romney Building, 10th Floor, Conference Room

I. Approval of January Meeting Minutes

II. Geographic Framework Program

A. Version 1b

Everett Root, Michigan Information Center (MIC), reported that in late September – early October MIC delivered Version 1a of the Michigan geographic framework. Since then the seven Michigan Department of Transportation (MDOT) attributes (functional class, legal systems, national highway system, county ownership left and right, and city ownership left and right) for Wayne and Oakland Counties have been updated. MIC received all the quality control checks from MDOT and incorporated that data into the framework and generated Version 1b statewide file and compared it to Version 1a. An 83-county Version 1b will be available the first of the week. The SEMCOG counties are on a CD to give to Ann VanSlembrouck, SEMCOG, after the meeting. There are issues with some data that are almost too new. Linear referencing system, point Ids, and physical referencing (PR) are all in order. In addition to the 7-MDOT attributes, MIC spent time on city and township boundaries. MSU ran Version 1a through the Themer Program. The issues that arose have been fixed. School district boundaries are closed now, the legislative district boundaries close now, and 1990 county commissioner districts are in there. MIC has legal descriptions for the new legislative districts and they will be entered some time this year into the repositioned version.

B. Repositioning Update

Everett Root, MIC, distributed a repositioning status map. MIC made a significant jump since last meeting, 83 % of PR arcs have been done. Ottawa County is complete except for checks. The Wayne County reposition file is a result of Version 1a and the Wayne County Office of Geographic Information Systems (GIS) centerline file (derived from digital ortho photography). Wayne County conflated framework Version 1 roads to their road centerlines and shared them back with the MIC, kept node IDs on their county files, which allowed MIC to match the two files and transfer MIC's nodes and lines so that they line up WITH the county's nodes and lines. There was 90+% match. This was a big part of MIC's completion this month. Wayne County has been looking at the bridges. Structure IDs for bridges are in the framework and there were almost 2,300 bridge points identified for Wayne County and Wayne County's records showed just over 2,300 bridges and all but 30 records matched. Wayne County created polygons to represent bridge decks. According to Wayne County's metadata anticipate +/-1 foot positional accuracy.

Eric Swanson, MIC, commented that the Wayne County partnership has been in place. Both the state and the county made a significant commitment to adopt common standards and linkages. It is a model that MIC will begin to promote heavily across the state with county and local governments. If the partners can adopt the same set of lines will reach the point of integrated Geographic Information Systems.

Everett Root, MIC, stated that Ottawa County had its own ortho photography and their 9-1-1 office needed a new centerline. They were willing to adopt the framework centerline and their staff did the realigning in-house. There was a 90+% match. Ottawa County Geographic Information Systems (GIS) is now updating address ranges. MIC is confident that they will be able to pull the addresses over, followed by new streets with appropriate name changes. A projected completion of repositioning by the end of February. MIC will begin to check polygons and linear referencing system, so as these counties get done will proceed with attributes and will

have Version 2. Some things will be improved: removing pseudonodes, clean-up of extraneous features, points will be aligned properly where hydrology crosses road, and make sure that hydrology doesn't interfere with the road features, highlighting areas in need of topology change, and highlighting areas that do not have road features (new subdivisions, etc.).

Ann VanSlembrouck, SEMCOG, asked if there is an estimated timeframe for the Version 2 release.

Everett Root, MIC, responded, not at this time. MIC staff is flagging errors by drawing an arc around it, put in a quad name, a comment, write it to another file and then delete it. So far there are 8,000+ for the state. This will be a Phase 2 type operation.

Dave Tijerina, City of Lansing, asked if there is there a primer or pamphlet with framework buzzwords.

Everett Root, MIC, responded that there are repositioning documents on the MIC web page in PDF format with a description of roads and hydrology with pictures and examples.

C. Digital Ortho Update

Everett Root, MIC, reported MIC has received all Digital Ortho Quarter Quad (DOQQ) of the state. They are on the MIC server and available for staff to use for repositioning. At the last meeting he spoke about how MIC, after receiving (Digital Ortho Quad) DOQs they mosaic the individual quarter quads with MrSID to generate full-county coverage photography. The problem with the background color of the photos has been resolved. There are 8 counties that they can mosaic. These will be available through the viewer. The first use of the countywide mosaics was with framework viewer.

Mike Donovan, Michigan Department of Natural Resources (MDNR), distributed a status map of the 1992 Series DOQs and 1998 Series DOQs. This is the first time state coverage is complete – it is a mix 1992 and 1998. Sherm Hollander, MDNR, wants to thank Charlie Hickman and Mark Coppersmith, USGS, the Quality Control Team at Rolla, and Vargas. The problem that Everett addressed in the previous month's meeting resulted from the fact that the DOQs are received in a UTM projection. The image from United State Geological Survey (USGS) is a perfect rectangle with useful image area within the rectangle in rows and columns. When reprojected into Michigan GeoRef, the result is a slanted image and then there are background pixels. The background pixels are zeros. The problem started because MDNR was also in the process of improvement of contrast in the image and the color balance, especially where there is ice or beach. As part of the process, MDNR was doing stretching in ERDAS IMAGIN, which has 3-5 places to apply stretching and they do not all get the same result. MDNR was applying it as a production method during the export to the TIF file – the images are stored as GeoTIFF and then produce SIDs from the GeoTIFFs. On the stretching routine it did not exclude the zero values (background values), so it went from zero values to non-zero values. Now cannot tell the difference between the background and the image in an automatic mosaicing process. In researching the problem and how to get automation and still do stretch and have it exclude the background values, had to write own modeling language in ERDAS to look at every band. In black and white imagery it did not seem to be an issue, the problem came out in the color images. The Michigan GeoRef projection centerline goes up through the state; the area of the state in the UTM zone 17 results in the greatest rotation of the image and the most background. MDNR assumes that this problem is with all the color images, depending on the amount of background. Now the question is setting priorities. Should they go back to 1998 that are done and may have this problem and reprocess. It is only a problem when creating mosaics. The word was that mosaicing was not a big priority because there are color balance issues and other issues that step into the mosaic. MDNR is still in discussion about how much to reprocess all those colors. They will all be done, but no schedule has been established. If using MrSID

early in 1992, the processing was 20:1 compressions. They decided later that 10:1 is better and those are being reprocessed.

Everett Root, MIC, stated that this explanation helps and Everett may use it to explain the process. He has been referring people to the MDNR's metadata on their web page.

Mike Donovan, MDNR, added that if interested in mosaicing and have this problem it is not easy. May have to create a mask around the image. There are ways to do this. The process will require one more human interaction step.

Everett Root, MIC, stated that they found they could change pixels in PhotoShop in GeoTIFF but lose referencing information. So they are not geographically referenced any more.

Mike Donovan, MDNR, commented that in ERDAS IMAGIN would have to create spatial mask extract from there into mosaics. The 1998 Series is continuing the paperwork process to pursue cost share funding with USGS.

Everett Root, MIC, added that it is his understanding that the color MrSID photos are going to the web site.

Mike Donovan, MDNR, responded yes. There is 1-2 week delay from when MIC receives them.

John Clark, Michigan Department of Environmental Quality (MDEQ), asked for clarification of the acquisition plan on the status map

Mike Donovan, MDNR, responded that means that there is statewide DOQs coverage, but MDNR has not acquired them from USGS and done their processing.

Everett Root, MIC, added that he thinks that MIC has those areas.

Mike Donovan, MDNR, commented that the state is done with DOQs in terms of the processing, reprojecting, and MrSIDs. Cannot put together a 1992 complete statewide Michigan GeoRef SID right now.

Everett Root, MIC, added that it would be possible if they are all in same file format.

Mike Donovan, MDNR, stated that a better category on the map would be MDNR Acquisition Plan.

Everett Root, MIC, stated that now that we have the DOQs, MIC wants to backup to tape and store off-site.

D. National Hydro Dataset (NHD) Update

Steve Miller, Michigan Department of Environmental Quality (MDEQ), reported that NHD group is meeting this afternoon to discuss direction and get an update from the Fisheries Institute and cooperative efforts to get the U.S. Forest Service areas done. There was a small group meeting to discuss coverages and the kind of hydrography coverage to be used for repositioning. Discussed issues of uses of the end product and should we be looking at in terms of this huge investment in hydrology repositioning of the state. They want to get input from some of the users. This will be discussed this afternoon.

Paul Seelbach, MDNR Fisheries, the Fisheries Division uses other federal hydro maps that are precursors to the NHD: the Environmental Protection Agency (EPA) Reach File 3 and the United States Geological Survey (USGS) digital line graphs working at 1:100,000 scale. They are in the process of moving that work unto the new federal map (NHD at 1:100,000). They do ecology modeling and linking data to rivers and lakes by looking at landscape relationships between water and various landscape features. They entered into partnership with United States Forest Service (USFS) to pilot conflation work for 5 Michigan watersheds to bring the NHD to 1:24,000 detail using framework data as the base map. They are in the beginning phases and are working with various elements of USGS.

Everett Root, MIC, stated that in the MIC web site under GIS news there is a new link for the NHD project. Basically it is a document that Steve Miller, MDEQ, prepared and has many links

to other web sites for more information about the different components of the project. Will continue to use that site for updates.

Steve Miller, MDEQ, added that Charlie Hickman, USGS, provided some links. The links prove that you can learn a lot and never get to the end of the internet. There are links to USGS and USFS and a lot of documentation.

Paul Seelbach, MDNR, commented that the framework data provide an accurate database. NHD and its precursors provide a data structure. They allow you to tag data to specific reaches on the rivers that have uniform standard identification codes and smart maps and understand water system and allow analysis up and down the rivers and lakes networks.

Charlie Hickman, USGS, added that there is interest in Oakland County to do ultra-high-resolution. Another project the Department of Interior Bureau of Indian Affairs in the Upper Peninsula on the Manistique should be done in a couple weeks

III. Michigan Department of Natural Resources (MDNR) Projects and Activities

Mike Donovan, MDNR, reported that MDNR is aggressively moving into the SDE realm for Vector data and image data. If people have experience in loading imagery in SDE, the MDNR would be happy to hear from you. IFMAP is an enterprise GIS application that is changing the way MDNR is doing GIS. It is a redesign of the forest landscape inventory system and developing a GIS environment tool that provides the ability to look at the data. The tool is an ArcGIS tool, but must deliver throughout the state. They are taking the approach of enterprise GIS and have an application server running ArcGIS 8 in Lansing. It is a Citrix server to improve performance of delivering the screen interface over the wide area network. That has a lot of high resolution emerge imagery, which is a digital camera base system over state lands and will go into SDE. Management of imagery over time is a big challenge. MDNR, through Vigil (MDNR's coordinating committee) funded a pilot project with Michigan State University (MSU) RESAC Program for the development an ArcIMS SDE image viewer over the internet. They did one pilot-worth of MDNR photography 1:15,840 scale black and white infrared photography that is flown every 10 years. They scanned all prints and now have web application where you can and see an ArcIMS map of Otsego County (the only county with active imagery). In real time you get high-resolution imagery over the internet. MDEQ is big users of the viewer – they can click and zoom and it is a great opportunity. Michigan State Industries (MSI) is working on an estimate to scan the entire state. These are not geo-referenced because there are not a lot of control points at that scale. But it is to provide the ability to view and download a MrSID image. MDNR is trying to seek funding from Vigil to continue this work with the rest of the state. The MDNR Aerial Imagery Browser application address is:

<http://foliage.geo.msu.edu/mdnr/viewer.htm?Title=Aerial%20Imagery%20Browser%20Prototype>

IV. Michigan Department of Transportation (MDOT) Projects and Activities

Joyce Newell, MDOT, reported that one of their major accomplishments was to complete the attributes for Version 1. In Wayne County they didn't take the time to do the surface roads because it would take time to research. Ownership of those roadways will be looked at in the near future. Also have acquired the data tape and software for a map image viewer. Need an NT server to load it on. Within a month or so will get 2000-2001 Act 51 updates to MIC for them to do maintenance and bring data up two more years. MDOT expects to have all the changes together and send in one batch.

Everett Root, MIC, commented that this works well when they are provided with a change-sheet that describes the change and then they can refer to the paper map.

Joyce Newell, MDOT, stated that they need to do a statewide review of bridges. There are a few not located at the time or located incorrectly. The bridge ID number was put at the node and

if the bridge crosses the river the same bridge ID would be on both banks; if it crossed north and southbound freeway with ramps, it would be on all them. So the same bridge ID in framework is used more than one time.

Everett Root, MIC, asked if Act 51 changes and bridge changes will be post-repositioning.

Joyce Newell, MDOT, responded yes and that they are also doing improvements on ramps and service drives for Version 3.

Everett Root, MIC, added that the framework is giving people a chance to look at the same features and see them in different ways.

John Clark, MDEQ, asked about MDOT's PR and control sections (CS) map books.

Joyce Newell, MDOT, responded that they have been published in book form and will be on the intranet shortly. They are also available on CD. The maps have state trunklines with CS and PR numbers by county. The work was done by MIC.

Everett Root, MIC, added that John Clark, MDEQ, helped with the ArcVIEW scripting

V. Michigan Department of Environmental Quality (MDEQ) Projects and Activities

Steve Miller, MDEQ, reported that they are rolling out the map viewer. At the WellHead Conference they will be presenting the viewer and the data. The Water Assessment rollout to some counties, which started this project four years ago.

John Clark, MDEQ, reported that their internet mapping which was originally done in ArcIMS 3.0 and SDE 8.0 will run in SDE 8.1. Have received a lot of request for statewide flood plain maps. MDEQ is trying to determine what the best way to estimate flood plain might be for the state. The new building code provides rules for flood plain maps even though communities don't participate in it. All the rules are more stringent than the National Flood Insurance Program. Since there is no flood plain map in Michigan, MDEQ is trying to come up with best guess for a map. Into the mix are hydric soils, wet lands, elevation models, hydrography itself. If anybody has had experience in this area, John would like to hear any suggestions.

Eric Nischan, MSP, added that one of the major emergency management issues is the snow melting and flooding. MSP uses the flood insurance rate maps.

John Clark, MDEQ, commented that the digital ones are considered Q3, which is not their best product. MDEQ was given the D firms on CD in CAD format and they were not converted into a polygon format. Ultimately they would have to be converted to ARC and then attribute them.

Paul Seelbach, MDNR, stated that MDNR has a grad student funded by the Vigil board who has developed modeling framework that runs Army Corps of Engineers hydraulic models from flooding models down to digital elevation model (DEM) and blends them specifically for proper hydrographs. He has run the Lower Peninsula to study flood plain wetlands. That would be a good start.

John Clark, MDEQ, wondered how they come up with one if there is no hydraulic analysis. Flood plains can be estimated if there are flows and not cross-sections. All communities that have flood plains have had that done.

Paul Seelbach, MDNR, stated that the flows are coming from modeling. It's been based on regression model of each segment and that's giving the relative discharge changes throughout the year. The cross sections are coming from the MDNR. When a valley pinches, the water backs up. So the US Army Corps of Engineers models help understand that. It's accurate at DEM scale, but not at 1:5,000.

Mike Donovan, MDNR, asked John Clark, MDEQ, if he has run into issues with firewalls because of IMS.

John Clark, MDEQ, responded that they came up with a 'work around' that they believe to be adequate. The ArcIMS product is a three-tiered solution. When originally implemented ArcIMS

3.0 they were using two tiers. Brought to their new building and put in the state's firewall schematic tool and noticed a drop in performance. If you hit the IMS service it doesn't draw back but if you refresh it will. Determined the mapping service is on the web server. The data comes up on SDE hops through 6 different computers and then gets outside the firewall to the map server where the map service generates a map and turns it into 400 x 400 pixel image and displays it. Discovered that if you take the map service out of firewall and put it inside regular network, can stream data through cable between SDE and map services server. This will send everything through at gigabyte speed and pump tiny image back to web service. ArcIMS is structured to use three tiers. With the map services internally on the network, you can call the map server from internet boxes and intranet boxes.

VI. Michigan State Police (MSP) Projects and Activities

Eric Nischan, MSP, reported that they began to finalize business rules to implement the Emergency Management Division (EMD) Operations Center Enterprise system. There is no date on full implementation at this time. After it is fully debugged, it will be pushed out to the rest of MSP. The E-Team Initiative should be meeting soon. MSP's consultant, SAIC, also did work for E-Team, so will now talk about integration. There is a mapping component to E-Team and MSP wants to be sure it is on framework for other state agencies to use too. Understands it is a statewide implement for all state agencies that will be housed at the EMD but over the internet. Anybody involved in an incident (local, state agencies, etc) when you log on with user name and password, you will have access to all information. Eric will advise Rob Surber, MIC, when knows more about it.

VII. Michigan State Industries (MSI) Projects and Activities

Carol Woodman, MSI, reported that they received some CDs of MDOT "As Built" documents and drawings. These documents are regarding highway maintenance projects going back to 1950. MDOT is having these statewide documents scanned and MSI will build a program to enable MDOT staff to choose a segment of road on the MGF and a record and/or a list of tifs with dates will be available. A tif can be chosen and viewed. MSI has finished a metadata entry project for the Army National Guard. With the Guard's documentation, MSI built their metadata for previous years. This was done on a SMMS database and using the preparser (CNS) and parser (MP), in full compliance with the FGDC standards. Much of the information was hand typed, as it couldn't be imported due to its file type. The Army National Guard was under a federal mandate to have the metadata done by March, 2002. MSI has a lot of scanning and parcel projects they are working on.

VIII. MIC Projects and Activities

Everett Root, MIC, nothing to report on other projects.

IX. MSU Center for Remote Sensing and GIS Projects and Activities

Tracy Aichele, MSU, reported that they are in the rollout phase of the Map Image Viewer. Improvements are being made currently. They are looking forward to getting Version 1b data. They need mosaics of the DOQs that are available. They are doing two workshops for the Well Log Protection SWAP and one workshop for MSU extension. They are also working with the Advanced Very High-Resolution Radiometer (AVHRR) data for the Sea Grant Post-Watch Project. The program has been running in Geographic Resource Analysis Support System (GRASS) for 4 years and MSU is updating into ArcGIS.

X. County / Local Projects and Activities

Dave Tijerina, City of Lansing, reported are couple of internal departments (police and computer) are trying to form a new group GIS Consortium with Eaton, Ingham, and Clinton Counties. All counties are at the beginning stages and are looking for an advisor perhaps from the Michigan GIS Users Group to come help them set standards. The next meeting is February 21, at the Ingham County Health Department building, 5303 S. Cedar St., Building #2.

Kathleen Weessies, MSU, asked if the township governments are involved.

Dave Tijerina, City of Lansing, responded that the County Equalization Departments are involving the townships.

Valdis Kalnins, Allegan County, reported that they are working on projects for: the Sheriff's Department wants orthos with a military grid overlay; the clerks want redistricting to find new voting precincts; doing site sketches for 9-1-1 who is putting up site towers; fire district maps; engineering companies want contours; finished parcel maps (updated monthly) for 24 of 34 units in Allegan County and other 10 units have parcels but have not had updates in last 2 years. Allegan County is not responsible to do the parcel mapping but they may duplicate the effort. Jeroen Wagendorp, Allegan County, has been doing modeling for the county along with orthos. They have over 3 million elevation points. Jeroen created a digital elevation model, draped with orthos, and did fly-throughs. Also looking at view sheds for 9-1-1 towers to find dead areas for radio transmissions. Ran through watershed modeling routines to redefine the watershed in the county. They will have their interns reposition the drain boundaries in partnership with the Drain Commission. Source for elevation model was panned off 24 control points that were field measured. They are accurate, +- couple feet. According to national mapping standards the elevation points would support 4-foot contours and they have interpolated down to 2 feet.

Charlie Hickman, USGS, added that there is a new federal standard called the U.S. National Grid that supports GPS communities more. Thinks that the military is going to that system too. It is an extension of the UTM Grid System but has elements of the military grid system.

XI. Regional Projects and Activities

Ann VanSlembrouck, SEMCOG, reported that they are working on 2000 Land Use update and the 2000 census block attributes on the framework. Livingston and St. Clair Counties are done; Washtenaw County is being finalized; Macomb, Monroe, and Oakland Counties are being worked on; and they will start prepping Wayne County tomorrow.

Abbigail Mueller, West Michigan Regional Planning Commission (WMRPC), reported they are working on the Ottawa County shoreline project.

XII. Federal Projects and Activities

Charlie Hickman, USGS, reported that DOQ first-time coverage for Michigan should now be complete (http://mcmweb.er.usgs.gov/status/mcmc/mi/mi_doq.html) with mix of 1992 and 1998 DOQ's. Expect a formal announcement from MDNR soon. MDNR is a big supporter, also CUPPAD, and Army Corps of Engineers. Michigan and USGS are seeking a new partnership to expand DOQ coverage based on newer (1998) imagery, but USGS partnership funds are currently frozen due to changing homeland security priorities. Partnership funds are frozen because of support for Homeland Security. Imagery is important and they now know that better than 1 meter is needed for urban areas. There is a list of 30 priority areas for this year including Detroit and Warren. The larger 100 cities includes Grand Rapids - Lansing not on the list. When they get requirements from the Department of Defense, the list will be larger. A lot of

efforts and funding may go to getting some layers of data for priority urban areas. The Department of Interior web access has been frozen for 8 weeks due to court order related to hacker access to Indian trust records. USGS has been allowed to come back up because of earthquakes and fire hazards. The past week the National Park Service reservation web site is up. Other interior web sites and e-mail access is still down. There is a new standard for Digital Raster Graphics (DRGs)(scanned topographic maps) (http://mcmcweb.er.usgs.gov/drg/drg_standard_change.html). The standard accommodates higher scan resolution and expanded color palette needed for U.S. Forest Service (USFS) maps. Second-generation USGS DRG's now use 500 dots per inch (DPI) resolution. The USGS is working with Department of Defense (DOD) National Imagery and Mapping Agency (NIMA) to ensure that current imagery and selected themes of spatial data are available for more than 100 priority urban areas in the United States. The USGS plans for the National Map (<http://nationalmap.usgs.gov/>) will be discussed at a presentation at the upcoming IMAGIN Conference. Several National Map pilot projects are underway (<http://nationalmap.usgs.gov/nmpilots.html>). The USGS is meeting with Census about possible direct use of transportation and boundaries from TIGER Modernization (<http://www.census.gov/geo/mod/maftiger.html>) for those layers in the National Map, in concert with US Department of Transportation (DOT) and state and local partners. Michigan high-resolution National Hydrography Dataset (NHD) meeting this afternoon at MIC in Lansing. NHD information is online at the following sites. NHD home page: <http://nhd.usgs.gov/> NHD symposium: <http://www.crrw.utexas.edu/giswr/events/122000nhda/> EPA - RTI info on NHD: <http://www.epa.gov/owow/monitoring/georef/> USFS high-resolution NHD: http://www.fs.fed.us/emc/nris/water/nhd_lib/ There is a new Michigan NHD web page at: <http://www.state.mi.us/dmb/mic/gis/nhd.htm>

Dave Tijerina, City of Lansing, stated that another reason Lansing should be considered in the Homeland Security is because it is the location of Bioport, the only manufacturer of anthrax in the nation.

Joe Kogelman, U S Bureau of the Census, reported that the Boundary Annexation Survey is coming out – counties, incorporated places with higher population, some townships, all Indian reservations. That goes directly to Boundary Annexation Survey contact. Indian reservations will be sent out from Detroit office will receive information back in the Detroit office. As part of the Homeland Security, the Bureau will contact every county in their 3-state region concerning about their digital files and metadata. There are 1,200 high-priority counties nationwide beginning February 15 through the end of March. Will contact the remaining counties by the end of June. Still working on the Count Resolution Program. Will also receive questions from Ingham County concerning prisons and dorms in the wrong locations. As more data (Summary File 3) is released there will be more questions.

Kathleen Weessies, MSU Map/GIS Library, asked what the release date of Michigan SF3 is.

Joe Kogelman, U.S. Bureau of the Census, responded the release date is late spring/early summer.

Kathleen Weessies, MSU, also asked if the National Map Program means there will be no more paper topos.

Charlie Hickman, USGS, responded that it will have 'print on demand' capabilities. They will print the most popular maps. There will be a map kiosk for the "print on demand" maps. This can be done now at a few sporting goods store. USGS is working with National Geographic on the topographic map kiosk.

XIII. Other Issues

Kathleen Weessies, MSU, asked if it is okay to broadcast information about projects and links to web sites. Public libraries may be interested in the Map Image Viewer to have the capability to do local mapping in a desktop situation. Is it okay for people to use LandScan. She doesn't want to broadcast stuff that is tentative.

Mike Donovan, MDNR, responded that their project is not secret but they are still trying to get funding.

XIV. Next Meeting Date

March 7, 2002, 10 a.m. until 12 p.m., Michigan Information Center, George W. Romney Building, 111 S. Capitol, 10th Floor, Lansing, MI 48933

** If any changes or corrections are to be made to these minutes, please contact the Michigan Information Center at (517) 373-7910. Changes and corrections will be noted on the final copy to be posted on the Michigan Information Center's home page (state.mi.us/dmb/mic).