

Geodetic Committee Meeting

August 17, 2010

The Geodetic Committee Commenced at 10:08 AM on August 17, 2010.

Present were: Lawrence Hartpence, West Des Moines; Dave Zenk, Minnesota Geodetic Advisor; Steve DeVries, Engineers' Service Bureau ; Gary Brown, GB Consulting; Jon Lubke, Winneshiek County; Rog Patoka, Emmett County; Jim Giglierano, IDNR.

Geodetic Monument Repository:

The Geodetic Monument Repository was conceived in 2006 as a central repository of Geodetic monument data. Originally, the vision was would be a partnership of many entities starting with counties, but growing to include state and federal agencies as well. Each agency would contribute coordinates to this site and host datasheets to these monuments on their own website in PDF format. If they didn't have a website, they would provide PDFs to the repository. It would be the contributing agency's responsibility to assure that they send updates to keep the data on the repository current.

This project has seen very little activity over the last few years both in adding data to the repository and in customers using the site. The committee thought that the vision needs to be scaled down. Instead of a site that has current data for each monument, it will have general data for the agencies we know have monuments. The site will display a basic idea of what is available in each county for Geodetic control and a contact to get more information. Gary Brown will provide this information to Jim Giglierano who will provide it to Steve DeVries who in turn will assure that the site is updated. This workflow will be more sustainable.

On a side note, there has been a perception that County Control networks would be less needed with the State RTN. The truth is that County Networks are a very useful supplement to the RTN.

RTN:

Since no one who is directly involved in the RTN was able to attend, this topic was discussed very generally. Gary Brown mentioned that the RTN website has a map showing which stations are up in real time. This brought up a discussion of how many stations are down at any given time. Dave Zenk mentioned that the same percentage of down stations can be found in Minnesota's network (approximately 2% at any given time). It shows how much maintenance a network like this takes.

Low Distortion Projections:

A Low Distortion Projection is a map projection that covers a small enough area to where the difference between projected measurements and ground measurements are almost nothing. Traditionally Surveyors have surveyed in an assumed coordinate system. Inserting these surveys into a GIS where all other data is projected in State Plane is not straightforward. If there were a Low Distortion Projection in that area, the plat could be surveyed in that projection without loss of accuracy and then easily projected into State Plane. Mike Dennis has developed a good

Geodetic Committee Meeting

August 17, 2010

system to create these Low Distortion Projections. Oregon is in the process of implementing Low Distortion Projections statewide and appears to be a good model for states that want to organize such an effort. At this time there are counties within Iowa that are investigating the creation of Low Distortion Projections within their jurisdictions. Uncoordinated efforts to create local projections will lead to long term problems. The committee realized that with the RTN and the ease with which highly accurate data can be obtained these days, the need for a statewide collection of Low Distortion Projections is real. How to coordinate this is the issue.

A few guidelines were discussed:

1. How many projections would Iowa need? 4-6
2. What degree of accuracy would be needed? 1:30000 – 1:100000

It was discussed that IDOT should lead the effort, but that all the stakeholders need to get together to discuss specifics so that a plan could be presented to the IDOT.

Lawrence will send out an invite via the Geodetic List Serve in a couple months. In the meantime the other attendees will send Lawrence contact information of those they believe will be key players in this discussion.