

Facilitating the sharing and coordinated use of spatially referenced data in Delaware

Meeting Summary
Quarterly DGDC/SMAC Meeting
1:00 p.m., May 20, 2004
Paradee Center
Dover, DE

Attendance List:

Mike Mahaffie	State Planning Coord.
Lillian Wang.....	DGS
Paul Sample.....	Legislative Council
Dick Sacher.....	UD/RDMS
John Callahan.....	UD/RDMS
Tina Callahan.....	UD/RDMS
John Laznik.....	UD/CADSR
David Racca.....	UD/CADSR
Shelly McCoy.....	UD/Morris Library
Chad Lauderbaugh	DelDOT
Debbie Sullivan.....	DNREC
Miriam Pomilio.....	DNREC
Doug Rambo.....	DNREC
Glenn Gladders	DNREC
George Yocher.....	Div. of Public Health
Matthew Laick.....	Sussex Co.
John Taber.....	New Castle Co.
Althea Howes.....	USAF/DAFB
Andy Howell, Capt.	USAF/DAFB
Kevin Hickman.....	USAF/DAFB
James Hoff.....	SAIC/DAFB
Marlen Kokaz.....	UPenn
Seth Van Aiken.....	ESRI
Michael Miller.....	ESRI
Rick Sherwood.....	DEMA
Mary Harper.....	SHPO
Scarlett Milliken.....	Del Elec. Coop.
Bill Milliken.....	Ofc. of Drinking Water
Cheryl Alt.....	TetraTech
Bernie Yacobucci	WILMAPCO
David Beattie.....	City of Wilmington
Jason Miller.....	Kent Co. Engineering
Felix Zvarick.....	Connectiv
Anas Ben Addi.....	DSHA
Bill Derizy.....	Merestone Consultants
Mark Whitlock	DSHS
Jeff Bergstrom	City of New Castle
Wendy Modzelewski.....	DCET

Welcome and Introductions

Mike Mahaffie began the meeting at 1:00 p.m. The meeting started with attendees introducing themselves.

Information Updates

DataMIL Migration

Mike Mahaffie gave a brief update on plans to migrate the DataMIL from UD's Research and Data Management Services to the DGS and DTI. Funds for the migration have been added to the Governor's recommended budget and are now under review by the General Assembly.

Delaware GIS Survey

John Laznik gave an update on the GIS survey, explained the responses generated by the annual conference, and encouraged people to fill out the survey.

GIS Day

John Laznik and Debbie Sullivan led a brief discussion of ideas for GIS Day, which is celebrated in November. Debbie has coordinated Delaware GIS for several years. John has agreed to coordinate the event for 2004. Some early ideas include working with local 4-H clubs and with the Dover Air Force Base. All were encouraged to participate. Those interested should contact John.

Discussion of draft FGDC "Guidelines for Providing Appropriate Access to Geospatial Data in Response to Security Concerns"

Mike Mahaffie gave a brief presentation (attached) on the two documents relating to Data and Security. One was the recent RAND Corporation study – Mapping the Risks: Assessing the Homeland Security Implications of Publicly Available Geospatial Information (<http://www.rand.org/publications/MG/MG142/>) – that provided background for the draft FGDC Guidelines for Providing Appropriate Access to Geospatial Data in Response to Security Concerns (http://www.fgdc.gov/fgdc/homeland/FGDC_access_guidelines.pdf). The federal Geographic Data Committee (FGDC) has released the draft Guidelines for comment through June 2. Mike encouraged the group to review and comment on the Guidelines.

He explained that the step-by-step review process suggested by the Guidelines is very similar to the review process undertaken by the Delaware Spatial Data I-Team, in coordination with the Delaware Department of Safety and Homeland Security, to craft the draft Acceptable Use Policy for the high-resolution version of the 2002 orthophotography (under review by the Governor's Office).

There was general discussion about the Guidelines and the approach that they suggest. There was some concern about ways to determine which data sets should be considered potential security risks.

Framework Forums (Continued)

Mike Mahaffie gave a brief presentation (attached) to recap the results of the Framework Discussion Forums at the 2004 Delaware GIS Conference. Several of the discussions yielded potential action items. These included some small steps, such as organizing training in the use of the USGS National Hydrography Data (NHD) now becoming available.

There were several larger ideas as well. The group generally agreed that there may need to be a County Boundary Commission, to look into providing highly accurate County boundary line GIS data. The I-Team will address this question, which may require legislative consideration.

The group also expressed support for creation of a new Working group to look into improved transportation data, with enhanced address range data or address-point data. The I-Team will form a working group on these issues.

Statewide GIS Conference

John Callahan gave a presentation (attached) to summarize the 2004 Delaware GIS Conference and start planning for the 2005 Conference.

The 2004 Conference drew 196 registrants, though 12 who registered were unable to attend. Most attendees were pleased with the event, though there were mixed reviews on the venue (Dover Downs). The pre-conference workshops were considered a success as well. John noted that he plans to create a Conference CD to distribute at

future DGDC meetings. This is expected to include presentations and other materials from the Conference.

John Callahan has chaired the Conference Committee for the last two years. Mike Mahaffie will chair the Committee for the 2005 Conference. The DGDC members were asked to consider serving on the Committee. Those interested should contact Mike Mahaffie.

There were several questions to consider in preparation for the 2005 Conference:

1. Should the Conference continue to include discussion sessions?
The group generally agreed that these are useful, though there was some discussion of mixing them more evenly into the agenda, to allow people to attend more presentations sessions if they wish.
2. Should the Conference expand to two days?
There were mixed responses to this idea, though there was some interest in a possible evening session. Generally, a second day would tend to complicate travel arrangements, as most attendees do not spend a night as part of this conference. On the other hand, there may now be enough content to justify a second day.
3. Should the Conference stay at one facility, or continue to move from County to County?
This question also drew mixed reactions. Staying at one facility would help with predictability and logistical planning. On the other hand, after another year, the Planning Committee will have good experience with facilities in all three counties. It is not yet certain whether moving around the state tends to depress attendance or spur it.

The Conference Planning Committee will continue to discuss these issues and plans to start meeting in August.

GIS at Connectiv

Felix Zvarick gave an overview of some of the GIS efforts and issues at Connectiv. This was in part a continuation of information he presented at the 2004 Delaware GIS Conference.

Felix explained the Connectiv is still partly in the Cad world and partly in the GIS world. He said that GIS issued for several parts of the Connectiv mission, including workflow management, regulatory compliance, outage management, and information administration.

Felix noted that there are several issues ahead for GIS at Connectiv, some sparked by the acquisition of the company by Pepco. He stressed the need for public/private cooperation, citing as an example GIS in addressing for 911 work.

Felix offered to take part in data exchanges with state and local governments. This sparked a spirited discussion of the need to use spatial data publishing, especially metadata publishing, rather than limited peer-to-peer data exchanges to ensure that all GIS users have access to comparable, integrated, useful spatial data.

ArcGIS 9

Seth Van Aiken and Michael Miller, of ESRI, gave an overview of ArcGIS 9.0, which is now shipping. Seth explained changes in the licensing of the product and gave an overview of its newest capabilities. Michael Miller provided several demonstrations of ArcGIS 9 and several additional products that can be used with ArcGIS 9.

Wrap Up

The meeting adjourned at approximately 4:00 p.m.

Data and Security

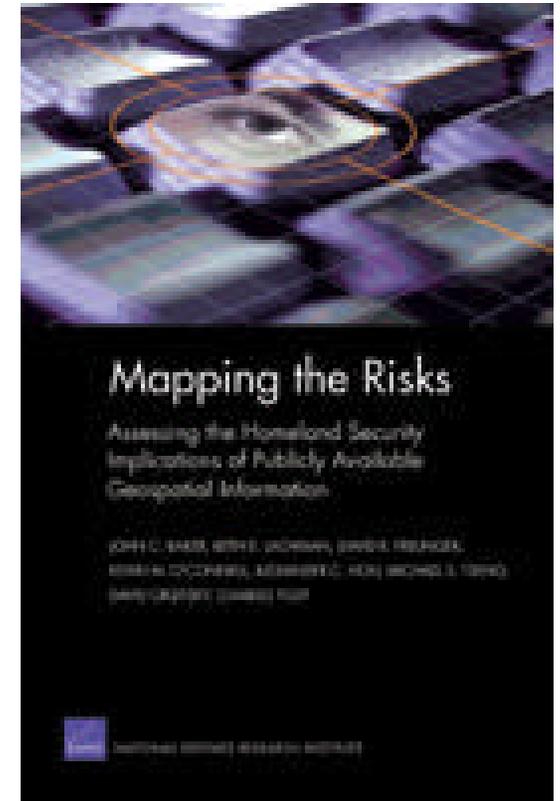
Studies and Approaches

- The RAND Study
- The FGDC Guidelines

May 20, 2004

The RAND Study

**"Mapping the Risks:
Assessing the Homeland
Security Implications of
Publicly Available Geospatial
Information"** (ISBN: 0-8330-3547-9)



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The RAND Study

- Funded by USGS and The National Geospatial-Intelligence Agency (NGA)
- To determine whether we are providing too much information to adversaries
- Mostly focused on federal government, but lessons for us

The RAND Study

- Analyzed information needs of potential attackers
- Analyzed available data (most federal), geospatial and otherwise
 - more than 5,000 federal Web pages
 - 465 federal sources of public geospatial info
 - 629 federal databases likely to contain geospatial information about U.S. critical sites
 - more than 300 non-federal sources

May 20, 2004

The RAND Study

- Some findings

- Information needed to **select** targets is widely available

- Less than 1% of federal data sets both useful and unique

- Information needed to **plan** attacks is harder to come by

- More detailed and current information

- better acquired from direct observation or other sources

The RAND Study

- Recommendations

- A consistent and uniform analytical process to evaluate the utility and risks of public data
- Work with state and local governments and the private sector
- Three questions:
 - Useful to attackers?
 - Available from other sources?
 - Cost of withholding greater than the benefit?

The RAND Study

- News release

- <http://www.rand.org/news/press.04/03.25.html>

- 3-page research brief

- <http://www.rand.org/publications/RB/RB9045/>

- Summary and full text

- <http://www.rand.org/publications/MG/MG142/>

The FGDC Guidelines

- Developed by the FGDC The Homeland Security Working Group (HSWG)
 - “ensures that the National Spatial Data Infrastructure . . . supports the ***preparation for, prevention of, protection against, response to, and recovery from*** [threats]”
- In coordination with RAND study
 - The three questions...
- “Use of a common, standardized approach”

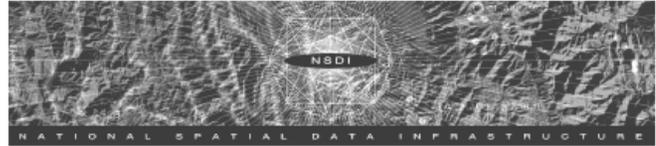
The FGDC Guidelines

- Draft Guidelines now under review (comments by 6/2/04)

- “Guidelines for Providing Appropriate Access to Geospatial Data in Response to Security Concerns”

http://www.fgdc.gov/fgdc/homeland/FGDC_access_guidelines.pdf

May 20, 2004



Public Review Version May 3, 2004

Guidelines for Providing Appropriate Access to Geospatial Data in Response to Security Concerns

What is the purpose of the guidelines?

Many public, private, and non-profit organizations originate and publicly distribute geospatial data. The vast majority of these data are appropriate for public dissemination and dissemination is essential to the purpose of many organizations. However, a small portion of these data could pose risks to security and may therefore require additional safeguards. Although there is not much publicly-available information that is sensitive, managers of geospatial information at federal, state, and local levels have restricted access to information using different criteria.

The guidelines provide procedures to:

1. Identify sensitive information content of geospatial data sets that pose a risk to security.
2. Review decisions about sensitive information content during reassessments of restrictions on geospatial data sets.

Additionally, the guidelines provide a method for balancing security costs and the benefits of dissemination. If protection is warranted, the guidelines help organizations select appropriate risk-based restrictions that provide access to data sets and still protect sensitive information content.

The guidelines are to be carried out within authorities available to organizations; they do not grant any new authority.

How are the guidelines organized?

The guidelines are organized as a series of decisions (see Figure 1) that an originating organization makes about a data set. Each decision is accompanied by related instructions and discussion.

The decisions are organized using the following rationale:

- I. Do the data originate in the organization? If not, the organization is instructed to follow the guidance it received with the data set.
- II. Organize documentation on your use of the guidelines, including the identification of the data set, the potential concern, findings determined by use of the guidelines, the action to be taken, and (if needed) the authority for taking the action.
- III. If the data originate in the organization, do the data warrant restriction? This decision is based on three factors:
 - **Risk to security:** Are the data useful for selecting one or more specific potential targets, and/or for planning and executing an attack on a potential target?
 - **Uniqueness of information:** If the data pose a risk to security, is the sensitive information unique to the data set?
 - **Net benefit of disseminating data:** If the sensitive information poses a risk to security and is unique to the data set, do the security costs of disseminating the data outweigh the associated societal benefits of dissemination?
- IV. If the data warrant restriction, what restrictions are warranted? The guidelines offer two options:
 - **Change the data:** Change the data to remove or modify the information that causes concern, and make the changed data available without further restrictions. Organizations are advised to review

FEDERAL GEOGRAPHIC DATA COMMITTEE
U.S. GEOLOGICAL SURVEY, 500 NATIONAL CENTER
RESTON, VIRGINIA 20192 <http://www.fgdc.gov>

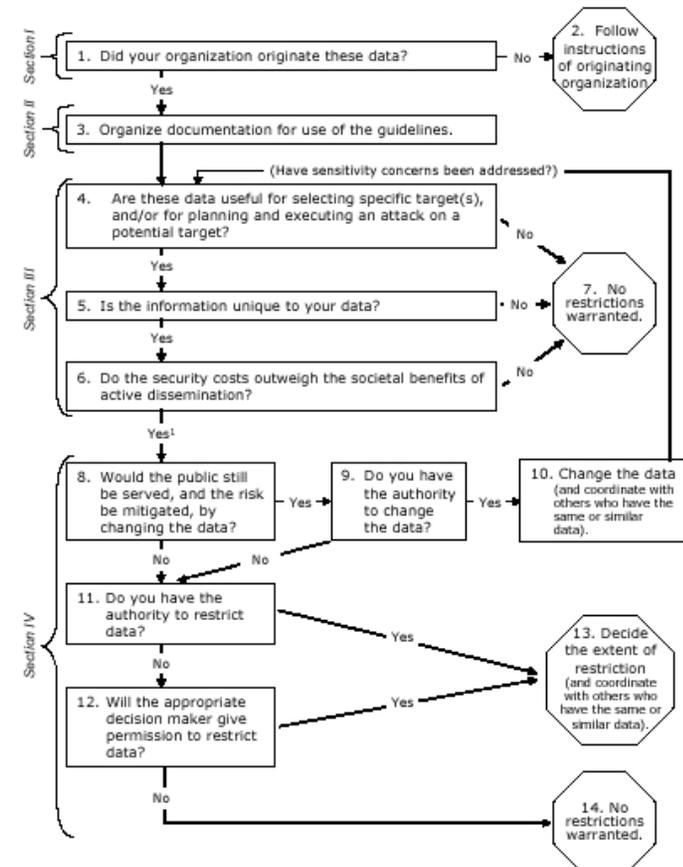
PHONE: 703-648-5514
FAX: 703-648-5755
EMAIL: fgdc@fgdc.gov



The FGDC Guidelines

- A decision-tree approach
 - Is it ours?
 - Is it a risk?
 - Is it unique?
 - Is it worth it to restrict?
 - Can we?
 - How should we?

Figure 1. Decision Tree for Providing Appropriate Access to Geospatial Data in Response to Security Concerns
(Duplicate graphic that can be detached and used separately.)

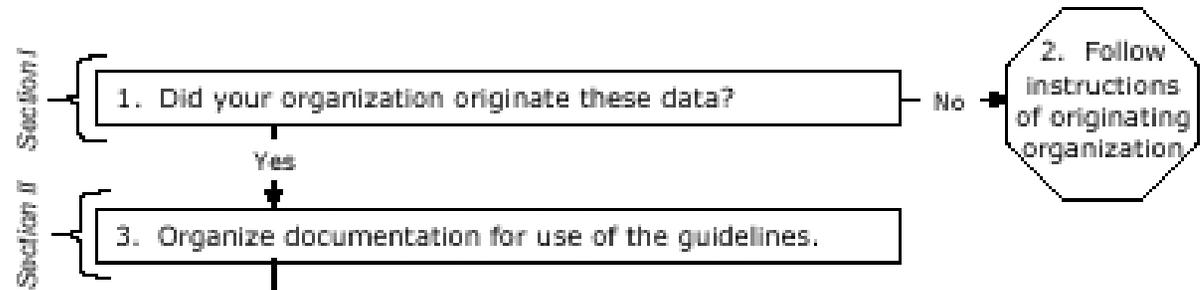


¹ To prepare for the restriction decision, a good practice is to identify other organizations that have the same or similar data and the restrictions they apply to these data.

□ Decision or process ○ Endpoint for the guidelines

The FGDC Guidelines

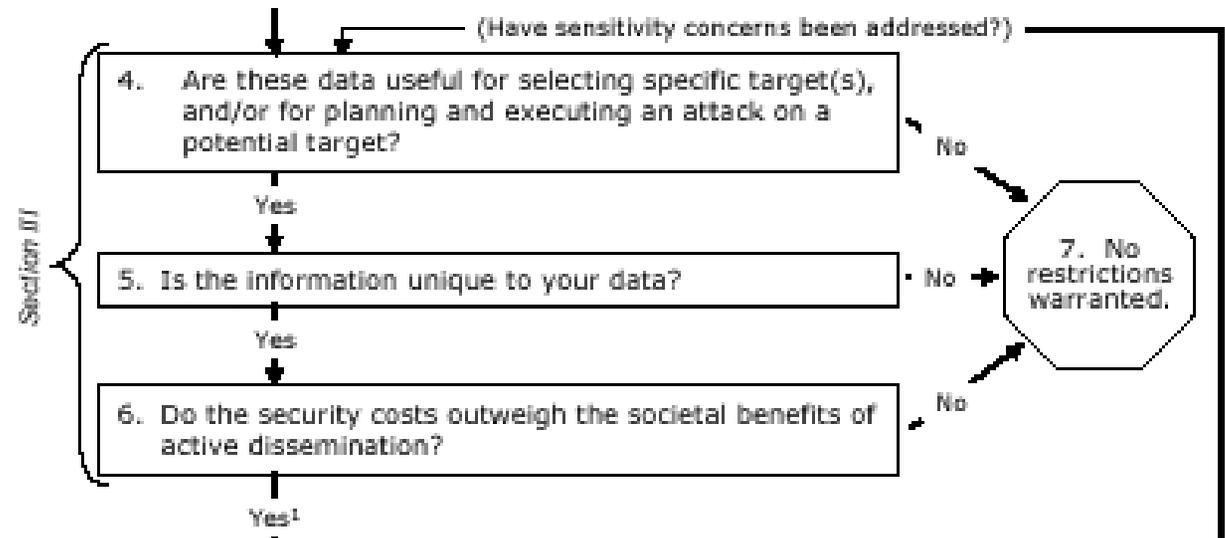
- Is it our data?



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The FGDC Guidelines

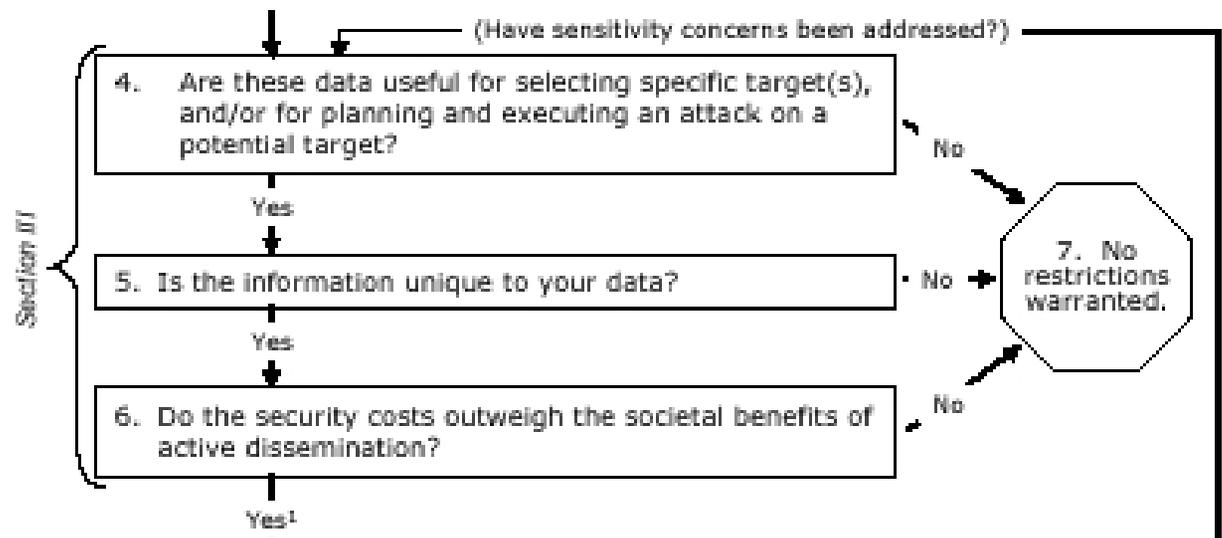
- Is this data a potential risk?



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The FGDC Guidelines

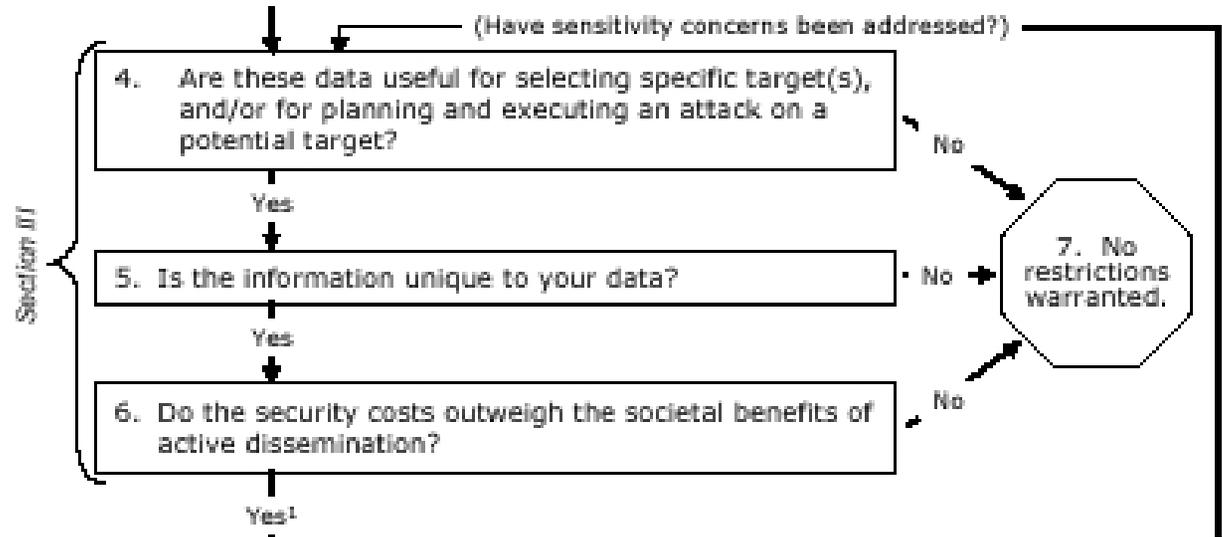
- Is this data a potential risk?
- Is it the only source of information?



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The FGDC Guidelines

- Is this data a potential risk?
- Is it the only source of information?
- Is it worth the loss of data to restrict it?

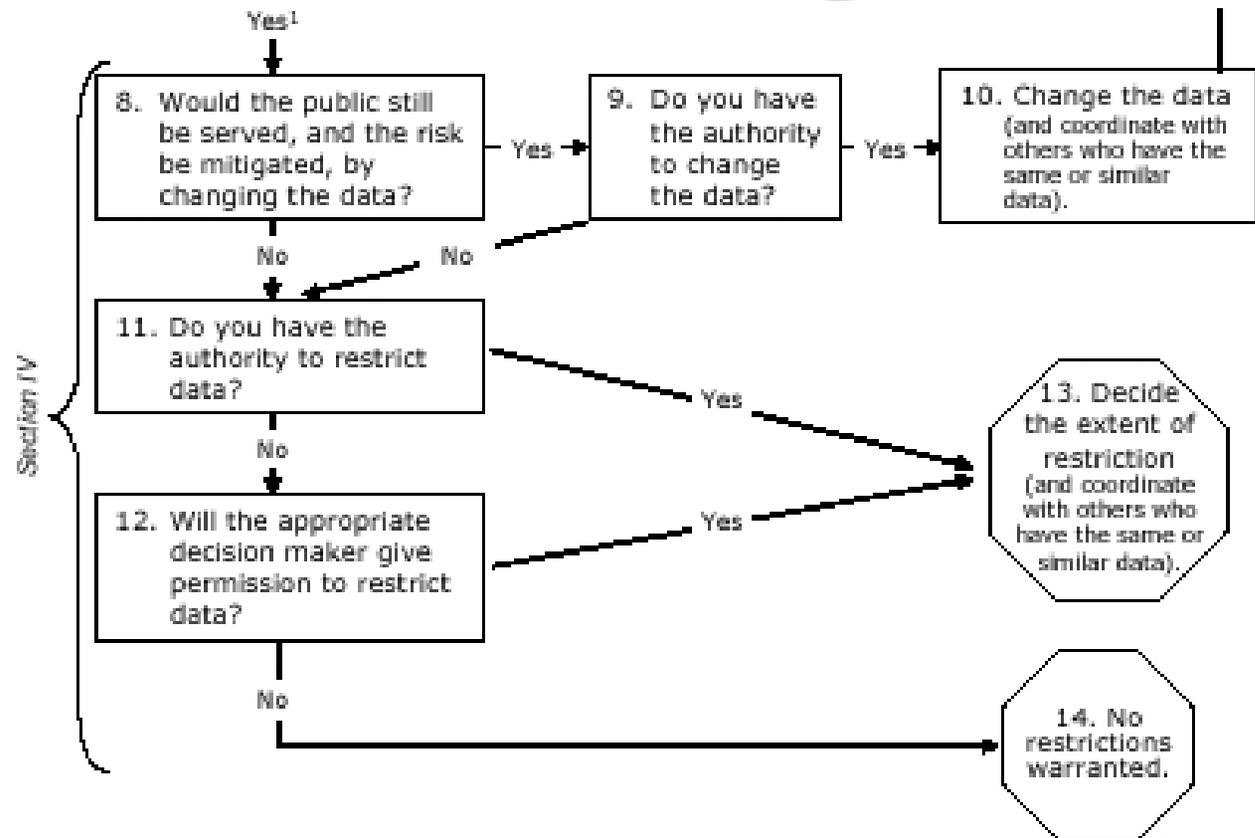


If any of these are “No,” do not restrict.

If “yes”, continue down the decision-tree. . .

The FGDC Guidelines

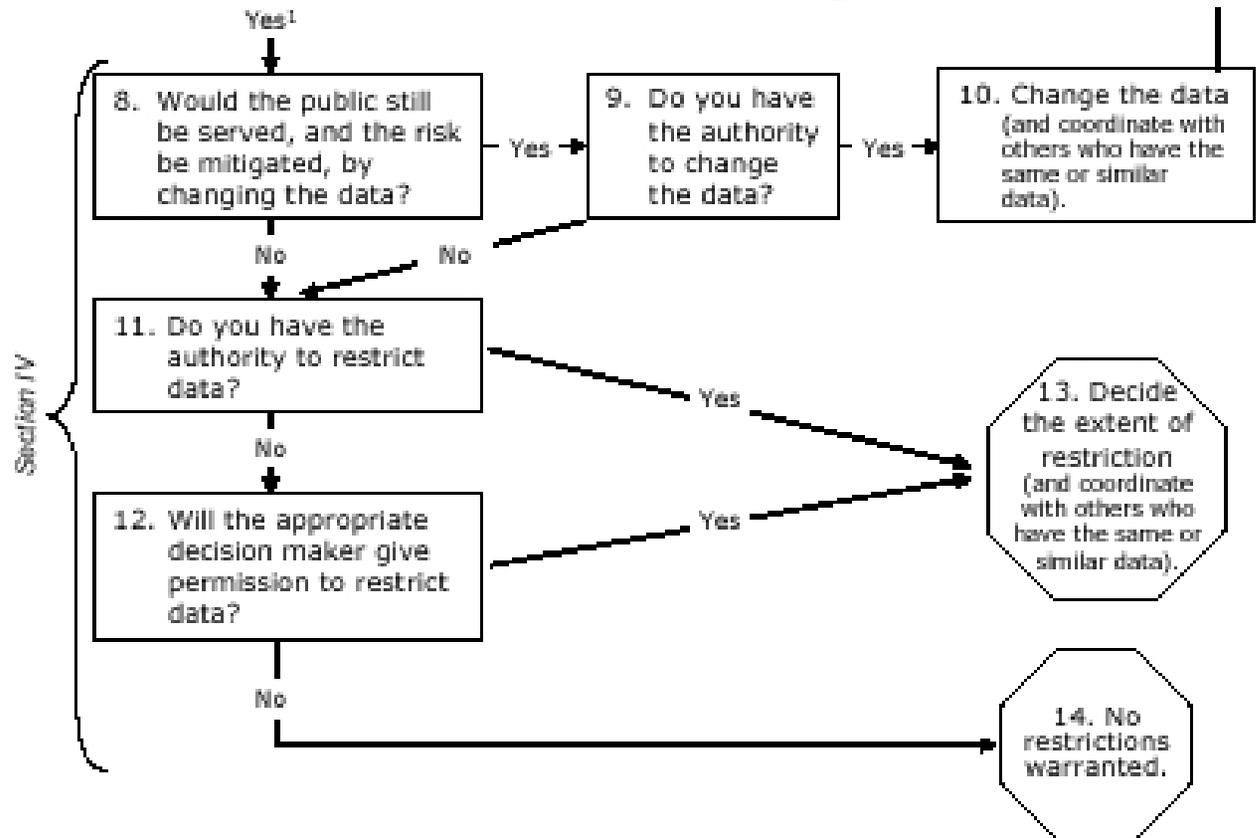
- Can we just change it?



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The FGDC Guidelines

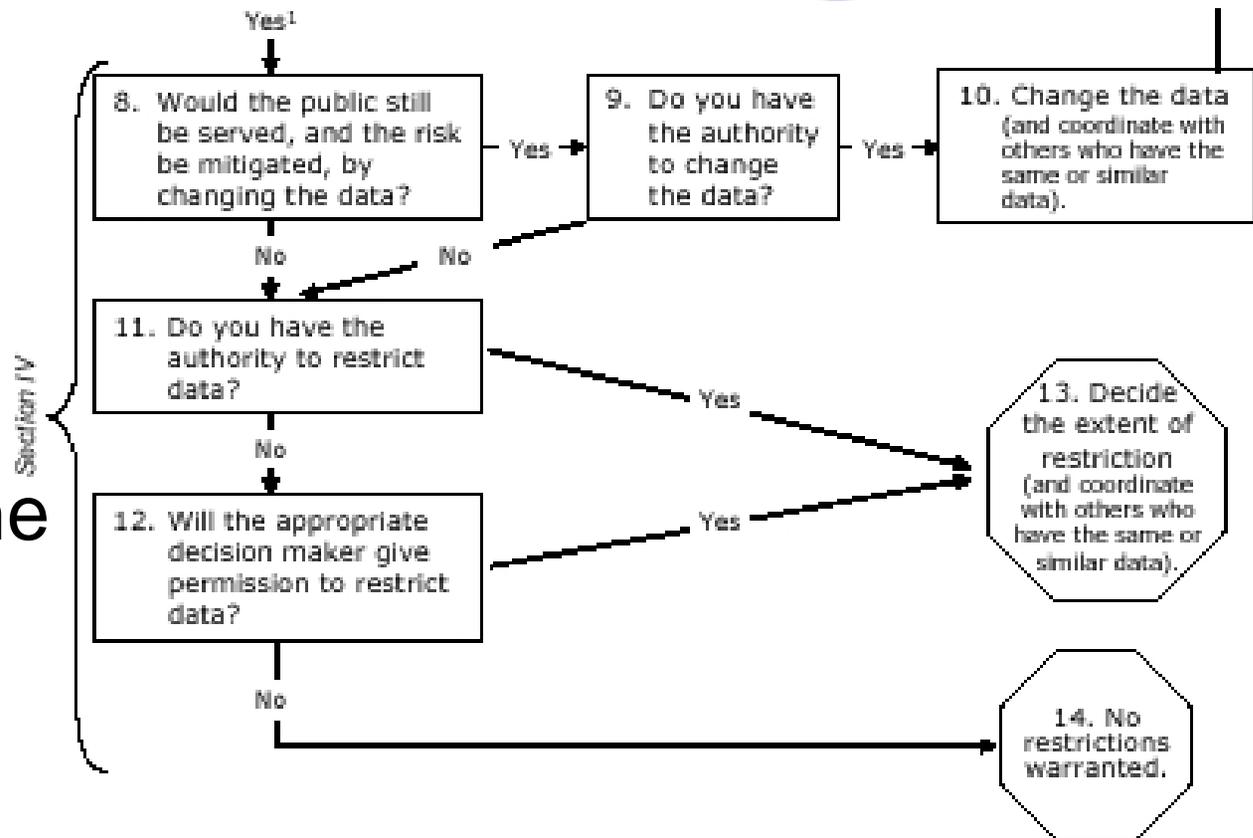
- Can we just change it?
- Do we have the authority?



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The FGDC Guidelines

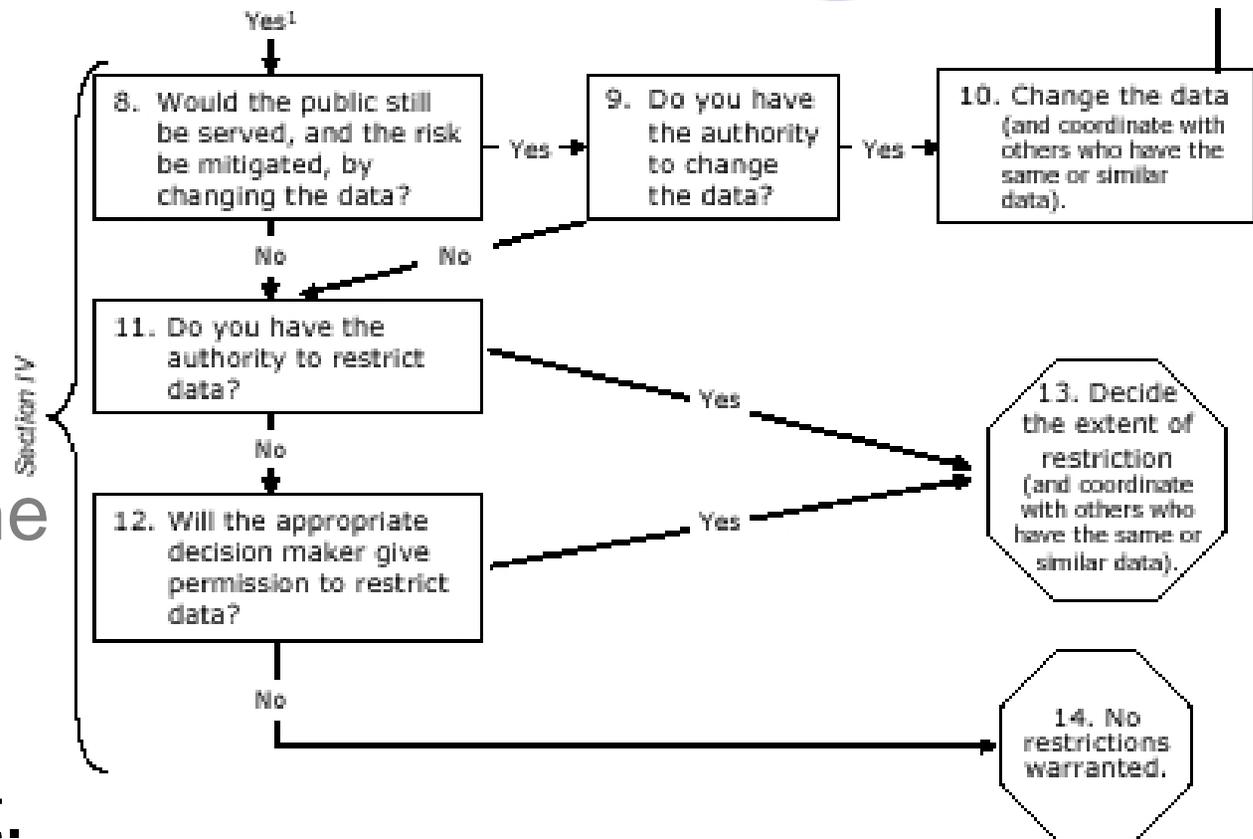
- Can we just change it?
- Do we have the authority?
- Can we get the authority?



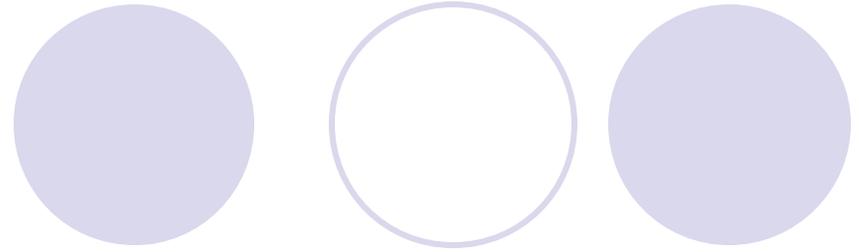
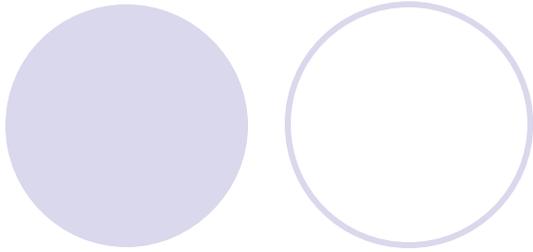
May 20, 2004

The FGDC Guidelines

- Can we just change it?
- Do we have the authority?
- Can we get the authority?
- Now change and/or restrict.



May 20, 2004



Discuss

May 20, 2004

Framework Forums

Issues and Possible Next Steps

Forums at 2004 Conference

- Hydrology
- Cadastral
- Elevation
- Boundaries
- Transportation

Hydrology

- National Hydrology Dataset (NHD)
 - Need training
- Need to tie to programs
 - Stormwater management
 - TMDL
 - Wetlands
 - Permitting/Zoning
- Use DataMIL to suggest corrections?

Cadastral

- ❑ Municipal use of County data
- ❑ Accuracy of parcel lines on new orthos
- ❑ Ability to track historical relationships of parcels
- ❑ Migration to new numbering
 - Assignment of unique Geo-PIN

Elevation

- LiDAR

- Piece by piece or all at once?

- Funding

- Process

Boundaries

- County boundary issues
 - A Commission?
- Better integration with cadastral
- Better integration with Survey Community

Transportation

- Standards
- County/State integration
- Integration with Public Safety Community
 - Addressing
 - Points of interest

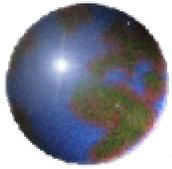
Next Steps

- NHD training
- Complete cadastral standards
- Seek additional LiDAR funds
- Establish County boundary commission
- Formalize relationship with Surveyor community
- Transportation/Addressing Working group



DELAWARE GIS 2004

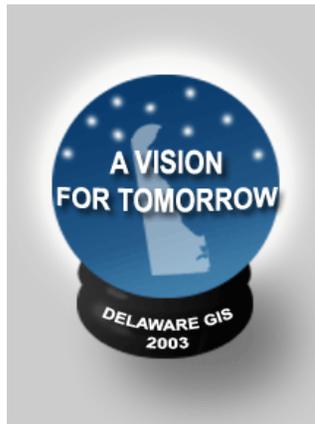
G E O S P A T I A L B A R N R A I S I N G



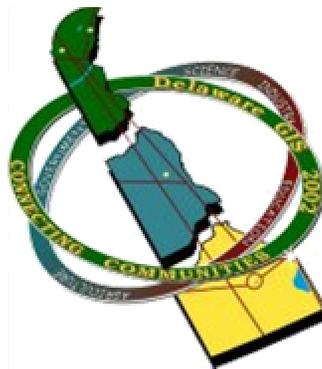
5th “Annual” Delaware GIS Conference



2004



2003

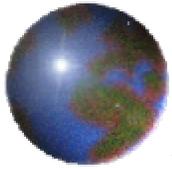


2002



2000

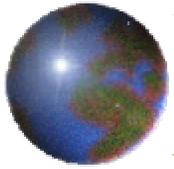
1998 – No Logo



April 20, 2004

Dover Downs Hotel

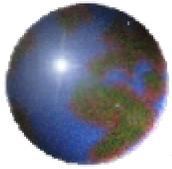




GeoSpatial Barn Raising

People working together for the common good. Each person contributes through his or her specific talents. Everyone has a place, and a responsibility, in the community.



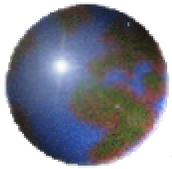


Attendance

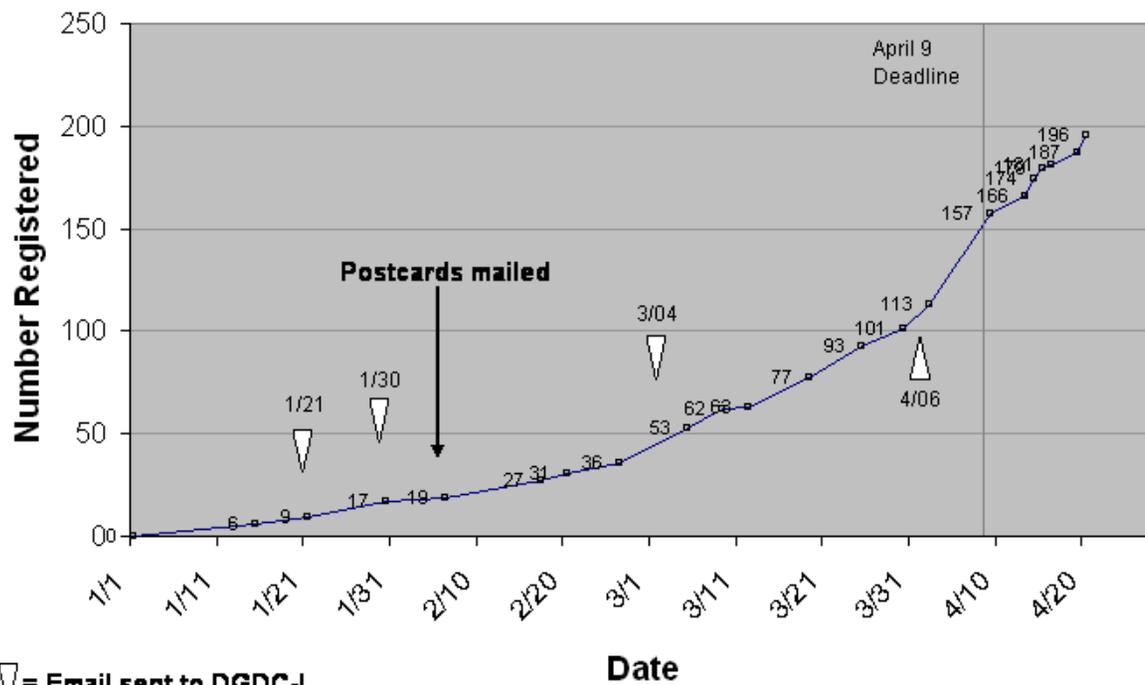
- ✦ 196 Registrations
 - ✦ 8 walk-ins; 12 no-shows
 - ✦ 19 students
 - ✦ 6 K-12 teachers

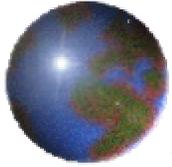
 - ✦ 49 UD faculty, staff, and students
 - ✦ 14 – DeIDOT
 - ✦ 12 – New Castle County





Delaware GIS 2004 Conference Registration





Attendance by Geography

☉ Outside Delaware

- ☐ PA – 20
- ☐ MD – 10
- ☐ DC/VA – 7

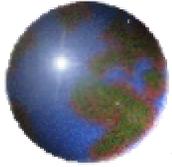
☐ 23% of total

☉ Within Delaware

- ☐ New Castle – 66
- ☐ Kent – 64
- ☐ Sussex – 20

☐ 77% of total

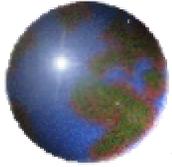
Compared to 2003 Conference at Clayton Hall, UD:
gained from Kent/Sussex (+**15**) but lost from New
Castle (**-35**) and from outside Delaware (**-30**).



Conference Agenda

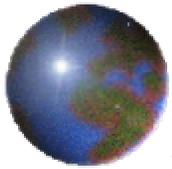
- ⊕ 9:00 – 10:00 am
 - ⊠ Opening Plenary
 - ⊠ Hank Garie
- ⊕ 10:30 – 12:00 pm
 - ⊠ Delaware Framework Discussion Forums
- ⊕ 12:00 – 1:15 pm
 - ⊠ Lunch
 - ⊠ Bill Burgess
- ⊕ 1:15 – 1:45 pm
 - ⊠ Poster/Vendor
- ⊕ 1:45 – 3:15 pm
 - ⊠ Presentations
- ⊕ 3:30 – 4:30 pm
 - ⊠ Closing Plenary
 - ⊠ Gov. Minner
 - ⊠ K-12 Award
 - ⊠ David Legates (DEOS)

 = **New this year**

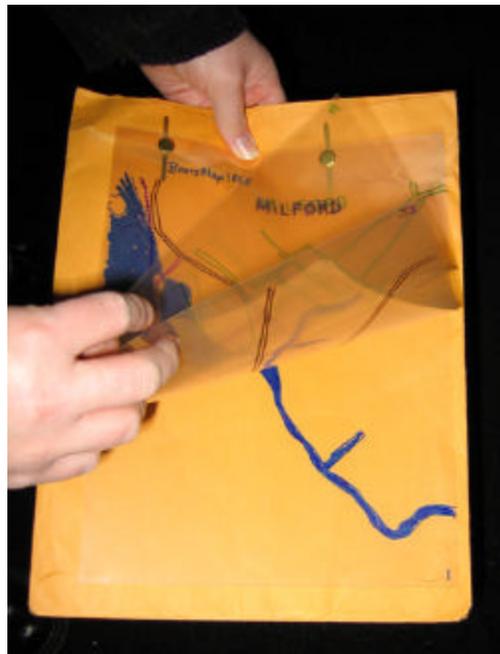


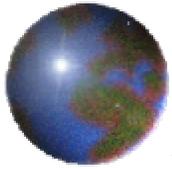
Preconference Workshops

- ⊕ The Advantages of the Geodatabase
 - ▣ 12 students, taught by Mike Miller, ESRI
- ⊕ A Ton of Tid-bits – Neat Things You Can Do to Brighten Up Your ArcMap Layout
 - ▣ 17 students, taught by Debbie Sullivan, DNREC
- ⊕ An Introduction to Web Map Services
 - ▣ 12 students, taught by John Callahan, UD



K-12 GIS Contest: Building A Map: One Layer at a Time

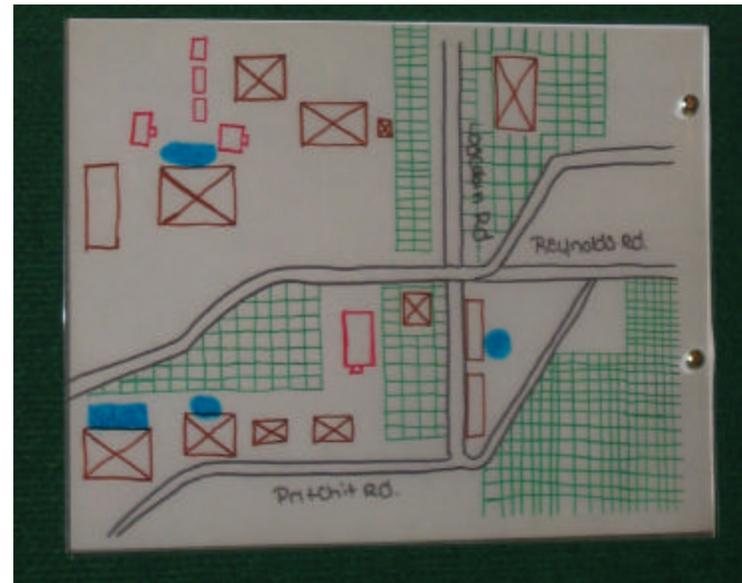
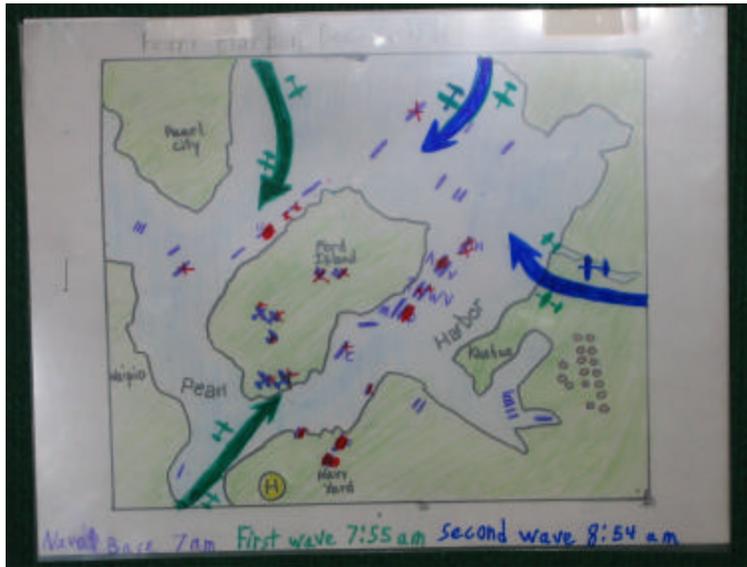
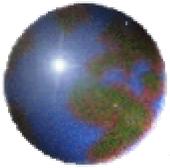


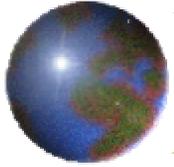


K-12 GIS Contest

125 entries!





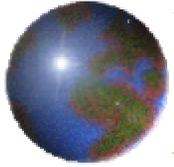


GIS in Education Award

- ✦ Cindy Cunningham
- ✦ Vicki Friend
- ✦ Lori Roe
 - ▣ Technology Specialist

- ✦ Richard A. Shields
Elementary School

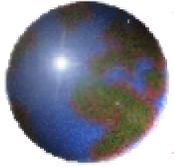




Conference Evaluations

- ✦ 51 evaluations returned – **26%**
- ✦ Overall quality of conference = **4.0**

Summary of responses...

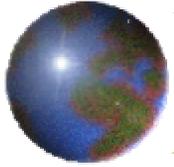


Factors to attend...

1. Program content and presentations
2. Networking opportunities
3. Opportunity to see new products and technologies

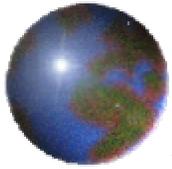
(same top three as last year!)

- ❖ Least important: keynote and luncheon speakers



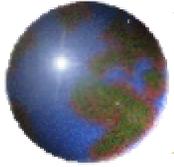
Rate the following aspects...

- ✦ Highest: Conference facility (**4.3**)
- ✦ Lowest: Opportunity to see new products and technologies (**3.6**)
- ✦ All others with average rating **3.7 – 3.9**



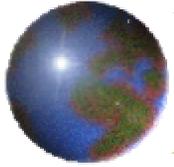
General Positive Comments

- ⊕ Facility
- ⊕ Food
- ⊕ Discussion forums
- ⊕ Quality of posters and presentations
- ⊕ Role of K-12 education
- ⊕ Interactions with others



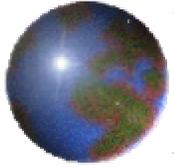
General Negative Comments

- ⊕ Audio and lighting problems
- ⊕ Hallway too crowded
 - ⊞ vendors, posters, food tables, walkway
- ⊕ Too many sessions back to back
 - ⊞ not enough "milling around" time
- ⊕ Too many concurrent sessions
- ⊕ More vendors



Near Future Plans

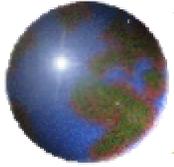
- ✦ 2004 Conference CD!
- ✦ Mike Mahaffie will be new chair
- ✦ Planning for 2005 to begin in August
- ✦ We need your input on **3** big questions!



Question 1

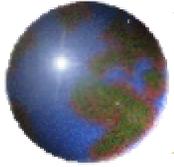
- ✿ Would you like more discussion-based sessions?
 - ▣ industry/topic specific meetings
 - ▣ technical discussion groups
 - ▣ Framework forums

 - ▣ ...each may include panel, facilitators, etc...



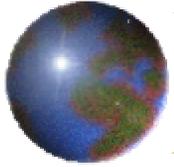
Question 2

- ✦ Should we expand the conference to 2 days or remain at 1 day?



Question 3

- ✦ Would holding the conference at the same location each year, such as at Clayton Hall - UD, deter you from attending?



Other ways to help for next year:

- ✦ Theme and Track Topics
 - ▣ Environmental, Education, Internet, etc...
- ✦ Session Organizers
 - ▣ Presentation or discussion session
- ✦ Nominations for GIS in Education Award
- ✦ Prepare Your Posters and Presentations
 - ▣ Fall 2004