Watershed Sciences 4930 & 6920
GEOGRAPHIC INFORMATION SYSTEMS

WEEK 15
SYNTHESIS OF COURSE

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HOUSEKEEPING

• Grades
  - Quizzes next week
  - Lab due in two weeks...
  - Check your grade in three weeks
• Feedback
  - You will be emailed evaluation forms next week
    - Survey Monkey...

LAB 10

• Meet at middle of quad
• Targets set for you
• You fly blimp
• You collect targets & building corners...

LAB WILL WORK AS FOLLOWS...

• Anyone who didn’t come Tuesday,
  and wants to participate, come today
  at 12:00

REMINDER... RESOURCES

WHO KNEW?

• A whole class on Blimps!
  - Dr. Baker’s ECE 5930
    Class on SmallSat-25
    Imager System Design
WHAT DID YOU LEARN?

• Was there anything you never thought you’d be able to do... but now you can?

AS FOREWARNED...

SURGEON GENERAL’S WARNING: This class is a ton of work! Continuing may cause headaches, shortness of breath, loss of sleep, and increased stress levels. But you just might learn a lot about GIS too.

I REALIZE...

• You guys worked really hard
• You had diverse backgrounds and interests
• What you wanted and ‘needed’ from this class varied widely...

WHAT I REALLY WANTED YOU TO GET

1. Understand the fundamental theory of Geographic Information Science behind Geographic Information Systems (GIS), and in so doing build an awareness of what GIS can and cannot be used for
2. Become proficient in the use of GIS tools to conduct spatial analyses and build maps that are fit-for-purpose and effectively convey the information they are intended to
3. Build confidence in teaching your-self how to undertake new analyses (unfamiliar to you) using GIS, troubleshooting problems in GIS, and seeking help from the GIS community to solve your problems
4. Use GIS analyses to address applied problems and/or research questions
5. Become effective in building maps that can be shared with non-GIS users (e.g. PDF maps and interactive webGIS maps)

WHY I USED THE 6 C’S

• Partly to emphasize learning outcomes
• BOTH style and substance are important
• Style is no substitute for substance
• But style does help you become an effective communicator

ALL YOU NEED TO KNOW

• A highly recommended text... $8.99 – Did you buy it?
• If ever you forget...
WHAT ARE MAPS? ALL HAVE A PURPOSE

Projections, Lat & Long

Scale

Direction / Orientation

Legends & Symbology

Topographic Maps
ROUTE ANALYSES (MIN. COST)

When you look at a map, it's important to see
there are more than one way
even your 3. In your 5.
Find these two maps
where they might fight a fire.
The fire was near the river,
Jane Hospital in town
but neither are dunes.

MEASUREMENT QUERIES

But on the way to get
Jane Hospital in town
you must cross the river.
for the road does not lead

THE EVER RELIABLE STRING TECHNIQUE

You can find the correct
to your destination
First, set up a map
Then mark the area
This is known as a grid!

GRID REFERENCES & COORDINATES

Use this book to find snacks,
You'll find that you did.
There are many with lines.

SOLVING PUZZLES WITH MAPS

Here is a map
but I just got the map
it's a party map
Mark the whole USA.
Finally, map the map
and circle the lines
you used to follow
circle them also.

PATTERN RECOGNITION

Here's a game that we play
You find here to follow
What's the next thing

EVEN HAS A GLOSSARY

**GLOSSARY**

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
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</thead>
<tbody>
<tr>
<td>Capitol</td>
<td>A city named after a country or nation</td>
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<tr>
<td>Configuration</td>
<td>The setup or design of a system or program</td>
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<tr>
<td>Equator</td>
<td>An imaginary line that divides the earth into Northern and Southern Hemispheres</td>
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<tr>
<td>Globe</td>
<td>A representation of the earth in the form of a sphere</td>
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<tr>
<td>Grid</td>
<td>A network of intersecting lines that divide the earth into equal parts</td>
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<tr>
<td>Latitude</td>
<td>The distance of a point on the earth's surface from the equator measured in degrees</td>
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<tr>
<td>Region</td>
<td>A part of a map that shows the location of a specific area</td>
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AS YOU MOVE FORWARD...

- Be agile... don't get attached to any one tool or piece of software... exploit whatever arises
- Don't be afraid to just try new tools
- ArcGIS is what we taught you, but it IS NOT the only way
- Exercise some ethics in how you use flashy technologies!

WHERE TO GO FROM HERE...

- Become ESRI certified
- Take some follow up courses
- Just teach yourself...
- Learn how to program
- Espresso Courses on the horizon...
- Teach others

PLEASE DON’T FORGET!

- The course website will be here as a resource for you in the future
- There are a plethora of resources (other then courses) out there to help you with GIS in the future
- GIS is just a tool... It's how you use it and what you do with it that matters
- Feel free to contact me in the future if you need help... or have a good story