Online Geodetic Control Database
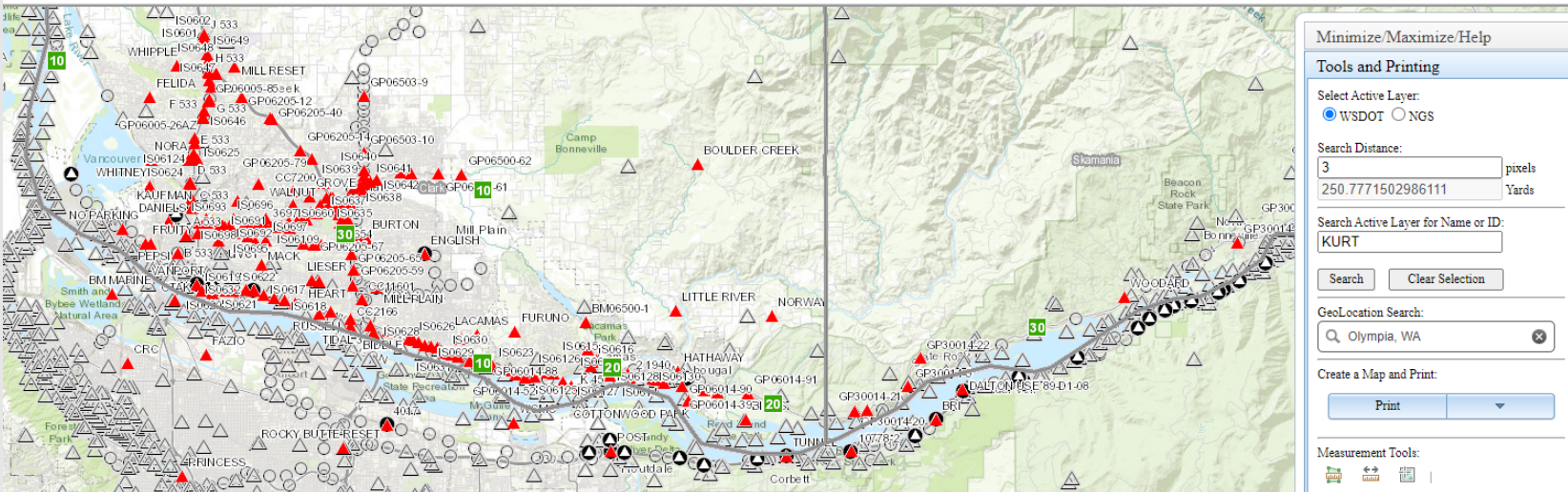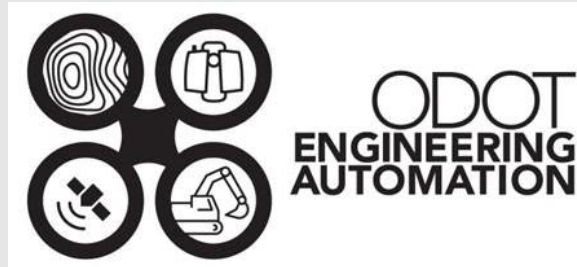

Chris Pucci, PLS

ODOT Engineering Automation Section

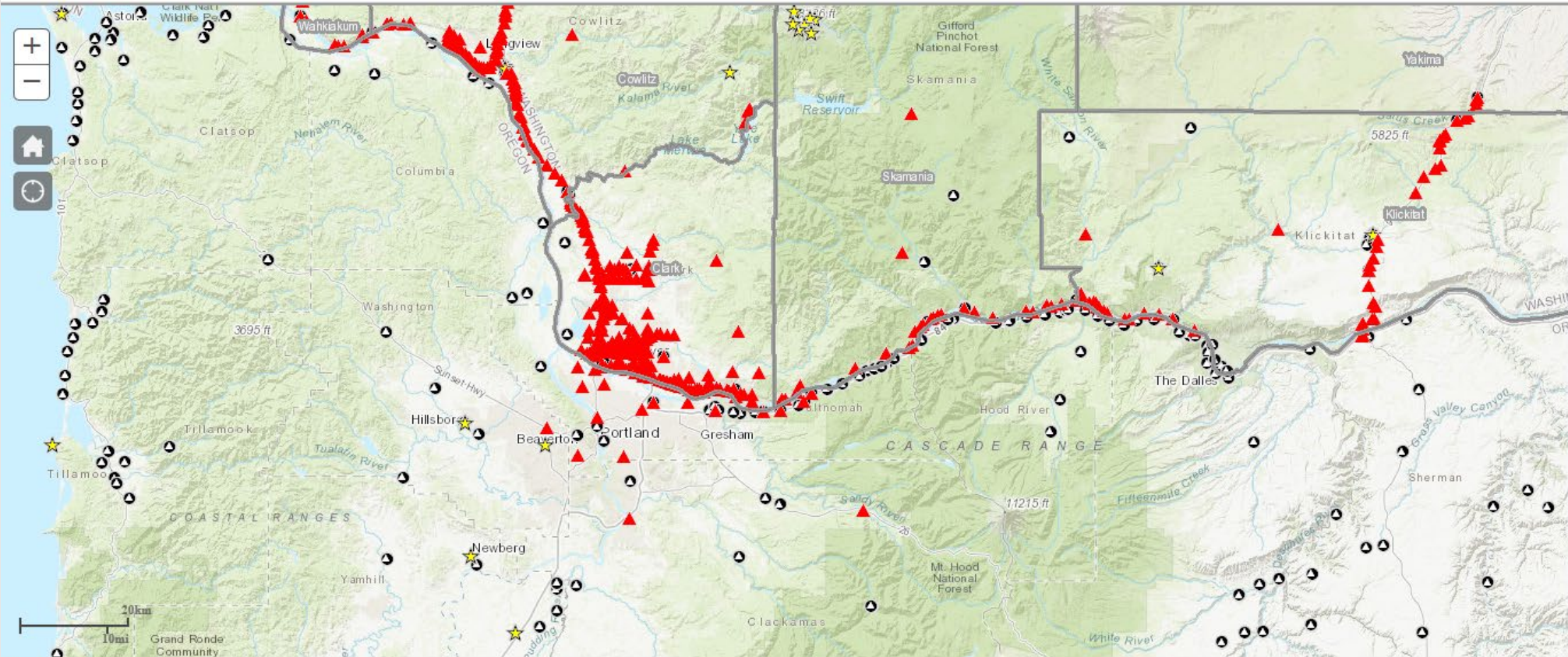OGUG Meeting – PLSO Conference

January 21, 2022

Chris Pucci, PLS

- Professional Land Surveyor
- ODOT Statewide Survey/New Technology Group
- Community College Land Surveying Instructor
- Focus on Technology & Training: GNSS Tablets, Ground Penetrating Radar, Machine Control, GNSS Research, anything new…

ODOT Project with Statewide Implication

- Project is just kicking off
- Goal is to create a database driven / GIS accessible geodetic control and monument database
- Start with ODOT project data
- Add in other state and local agencies
- Move to professional surveyors / other geospatial experts

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https://www.wsdot.wa.gov/Monument/gis/index.html

https://tinyurl.com/2p94zm88

https://gis.odot.state.or.us/geometronicsonlinetoolkit/

https://gis.odot.state.or.us/geometronicsonlinetoolkit/
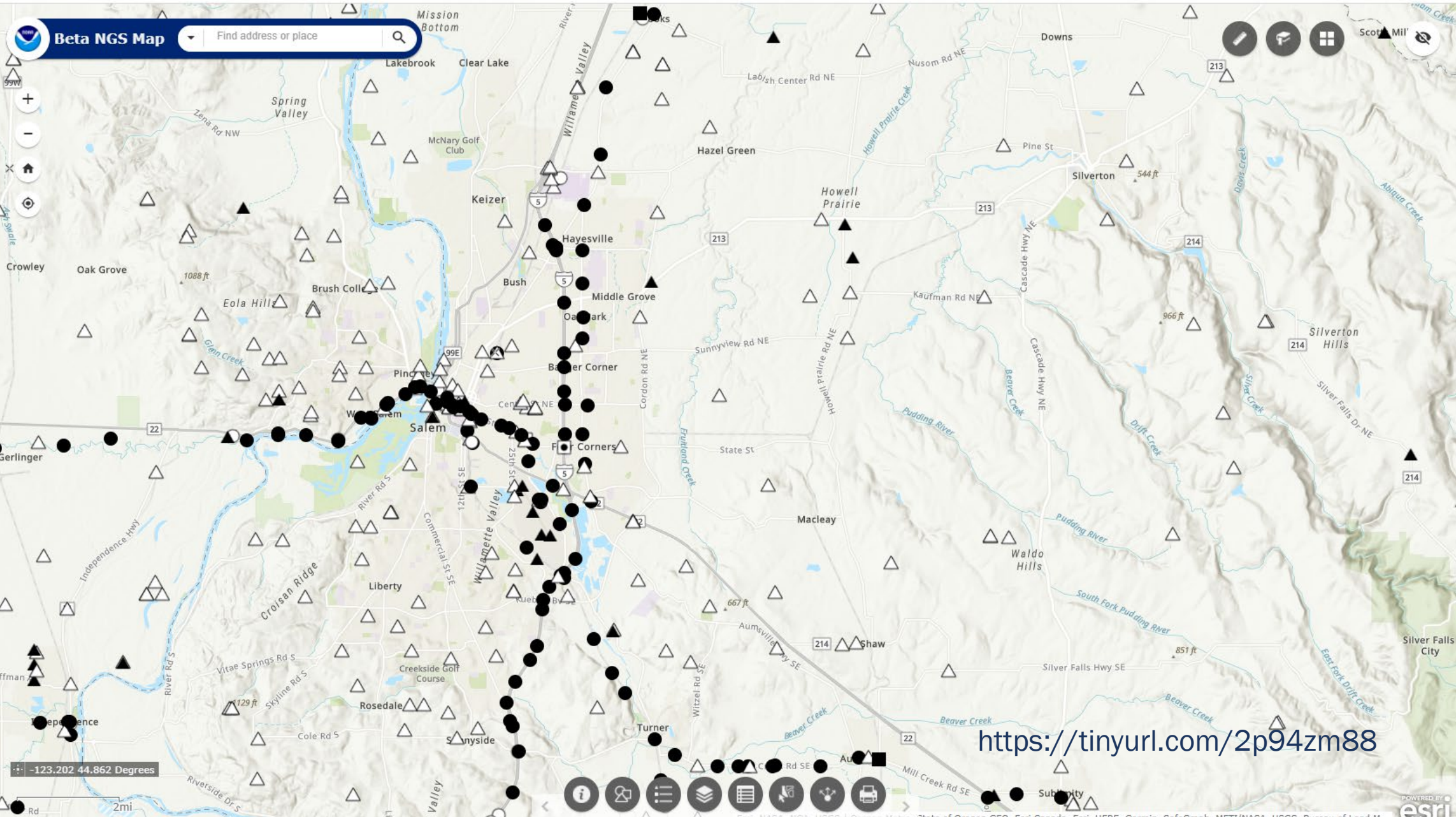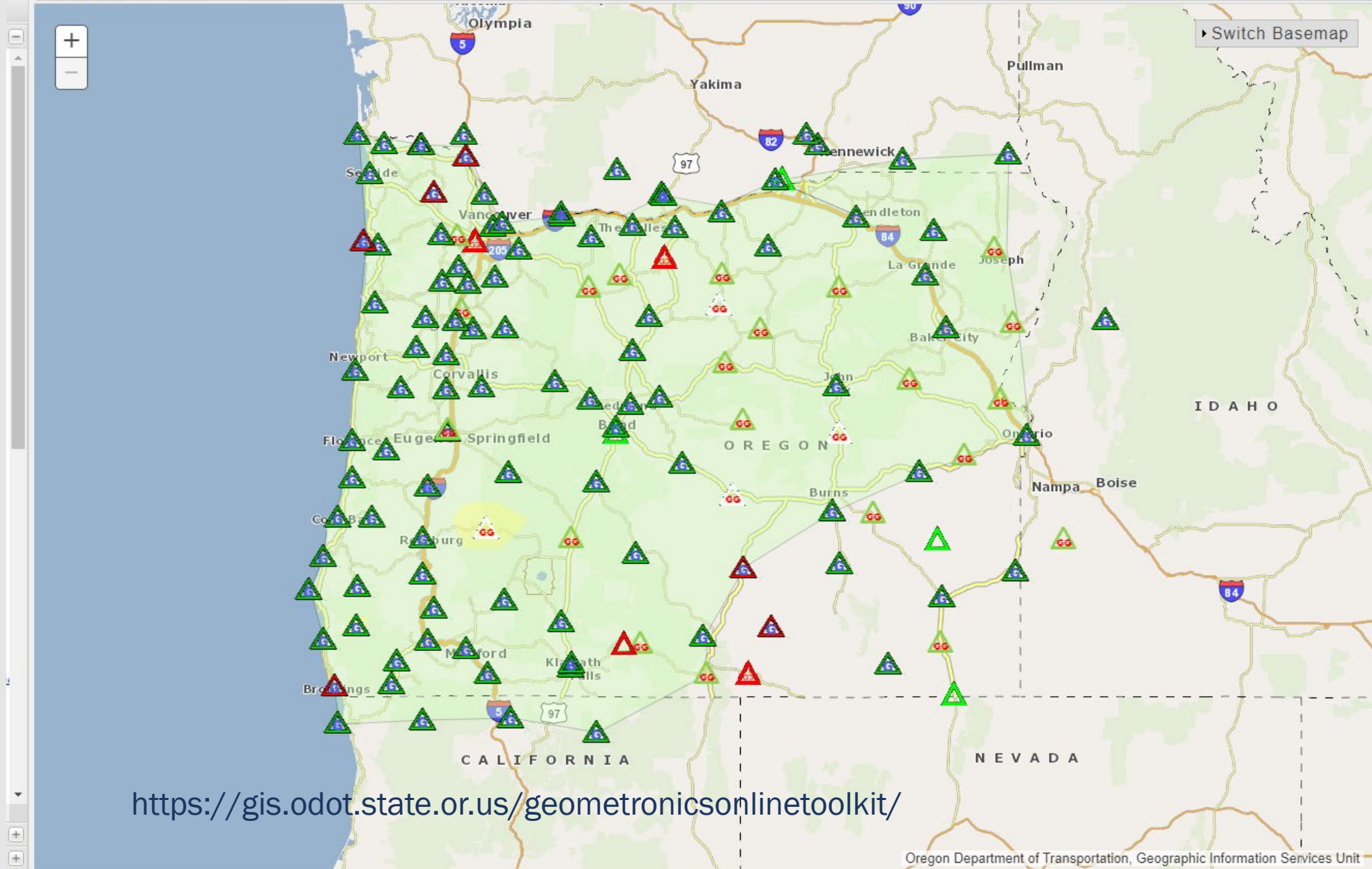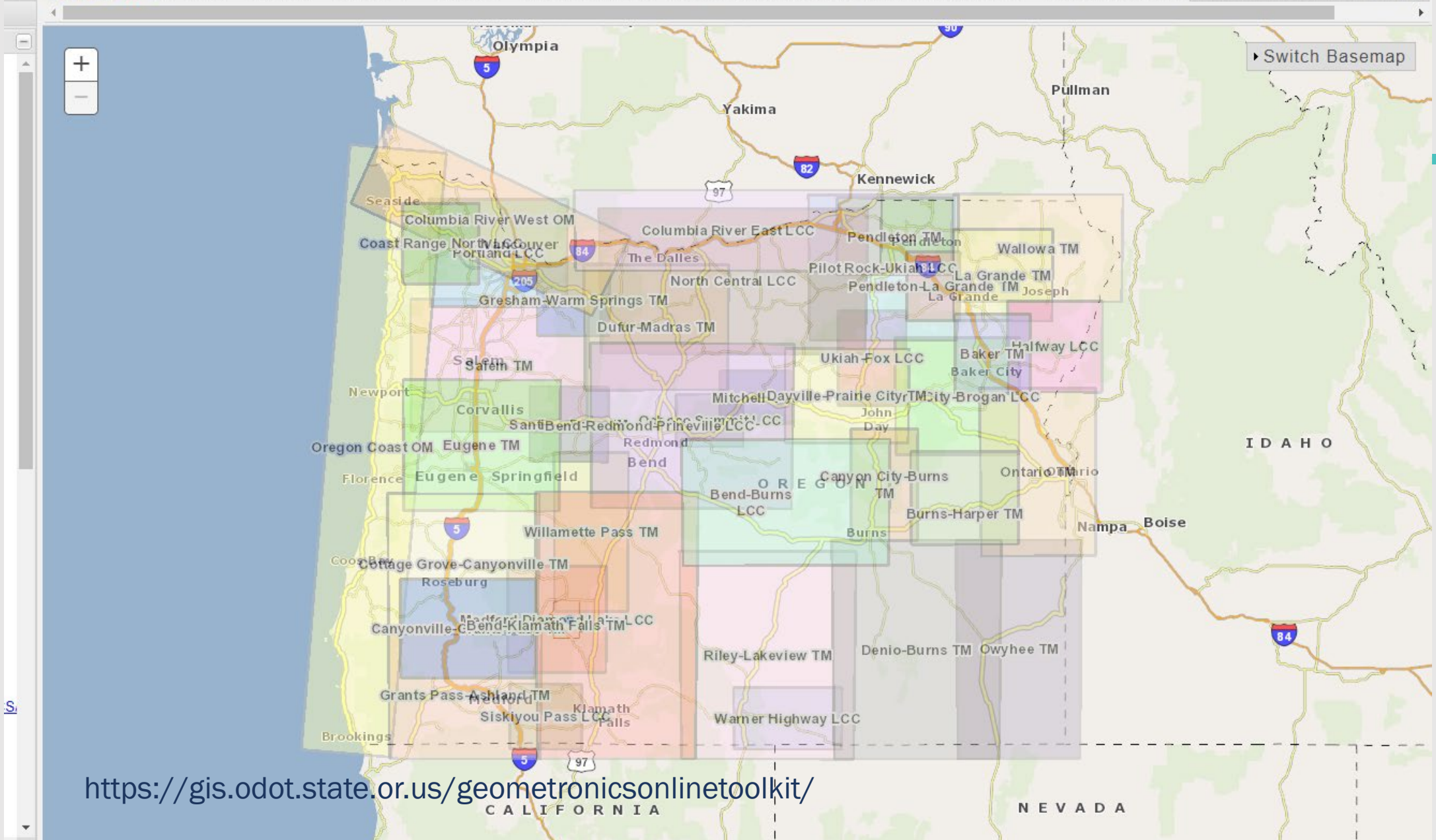
How are we going to do it?

- Oregon State University as a contractor
- ODOT Research as contract administrator/project manager
- ODOT Engineering Automation as project Champion
- Chris Pucci as Project 'Driver' / The guy that wants it done!
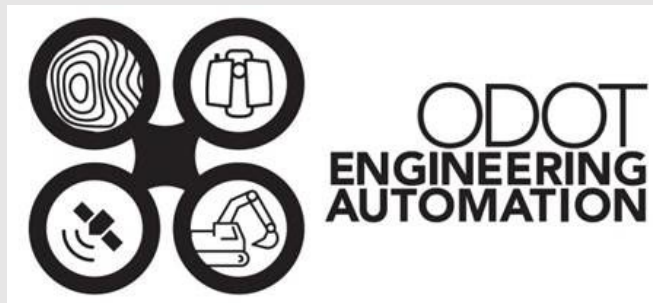
Bigger Picture Statewide Role

- Geographic Information Council priority
- State Geographic Information office priority
- Potential new Geodetic Control Data Standard
- One-Stop shop for geodetic control

- ODOT project will be the 'start' of something bigger

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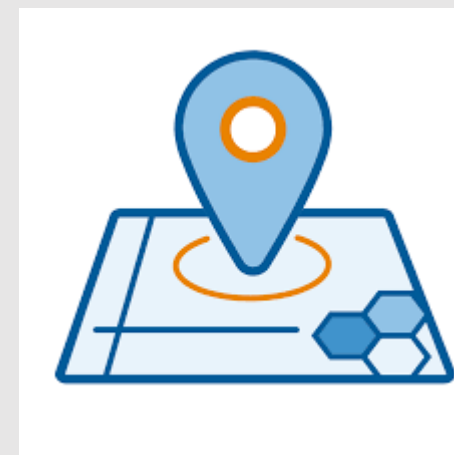
Wish List Items

- Statewide data (Lots of participants!)
- Housed in state managed database
- Live links to 'other' data sources – not copies
- Easy upload of data (with QA/QC function)
- Viewable in ArcGIS Online or similar non-custom application
- Easy download of data (Excel, 'datasheets', maps)
- Easy to search and filter

METADATA!!

- Not just points and coordinates
- As much metadata as we can get for each point
- Descriptions that go beyond 'GPS Point'
- Datums, epochs, original collection date, etc.
- Agency, project, survey number, web link to more info
- Pictures?
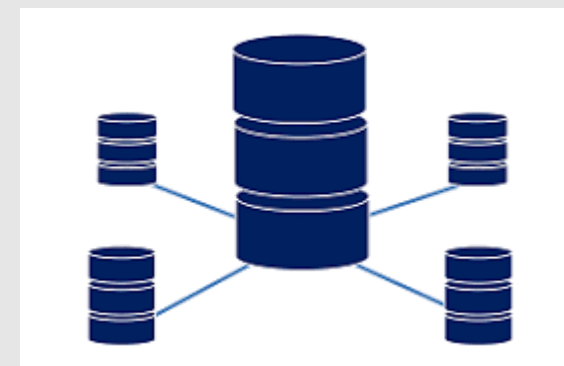
What am I missing?

?

"Great discoveries and improvements invariably involve the cooperation of many minds."

Alexander Graham Bell

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Next steps

- Internal ODOT meetings to outline database structure GIS/IT/IS roles

- OSU/ODOT GIS Database building (copy WASHDOT schema?)

- OSU to build frontend

- OSU to build data upload 'tool'

- OSU to test it all!

- Start populating with ODOT data…

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Timeline

- Honestly – no idea – these are wild guesses
- 9 to 12 months for first online tools
- 2 years to a complete working 'system'?

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Open discussion

- I am taking notes
- I want your ideas and comments

- You can also email or call me later with ideas, thoughts, comments, suggestions, words of encouragement, etc.

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Questions?

Chris Pucci, PLS

Project Surveyor

Engineering Automation Section

Christopher.Pucci@odot.oregon.gov

Phone:503-302-5474

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