



# Multi-State Control Point Database (MCPD)

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# MCPD – History in a Nutshell

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**2000**

- Formation of the *Montana Geodetic Control Working Group*  
*Mission* – To improve the sharing of control point information

**2010**

- Creation of the original *Montana Control Point Database (MCPD)*

**2011**

- *Idaho Geodetic Control and Cadastral Reference Working Group* combined forces with the *Montana Geodetic Control Working Group*  
*Mission* – To expand the MCPD into a multi-state project \*

**2012**

- Creation of the MCPD Flex Viewer (Beta) web app.



# MCPD – History in a Nutshell

## Life Before MCPD

- Less than 1% of geodetic & mapping control points were ‘blue-booked’
  - (Reported to National Geodetic Survey)
- Public funds were used to create control points on a project by project basis
  - Same points were seldom used twice
- Little if any data sharing occurred between projects and/or surveyors



# MCPD – History in a Nutshell

## Current Capabilities

- Growing coverage for Idaho and Montana
- Contains over 3,500 control points
  - With over 2,000 additional points currently pending review
  - Including recently established and re-located control points
  - Submitted by participating surveyors and agencies
  - [http://mcpd.mt.gov/mcpd/mcpd\\_metadata.html](http://mcpd.mt.gov/mcpd/mcpd_metadata.html)
- References over 4 mil pts. from the BLM Geographic Coordinate Database (GCDB)
  - [http://mcpd.mt.gov/mcpd/gcdb\\_metadata.html](http://mcpd.mt.gov/mcpd/gcdb_metadata.html)
- References over 34,000 control points from the National Geodetic Survey (NGS)
  - <http://www.ngs.noaa.gov/cgi-bin/datasheet.prl?Explain=DATASHEET#>
- Includes the following Public Land Survey System (PLSS) layers:
  - Township/Range, Section, Quarter-Quarters and Special Surveys



# MCPD – Future Intent

## Future Capabilities

- A true *Multi-State Control Point Database*
  - Include additional states beyond Idaho and Montana
- Complete representation of professional surveyors
- Provide effective access to high-quality geodetic control information
- Ability to consume application in both the office and field

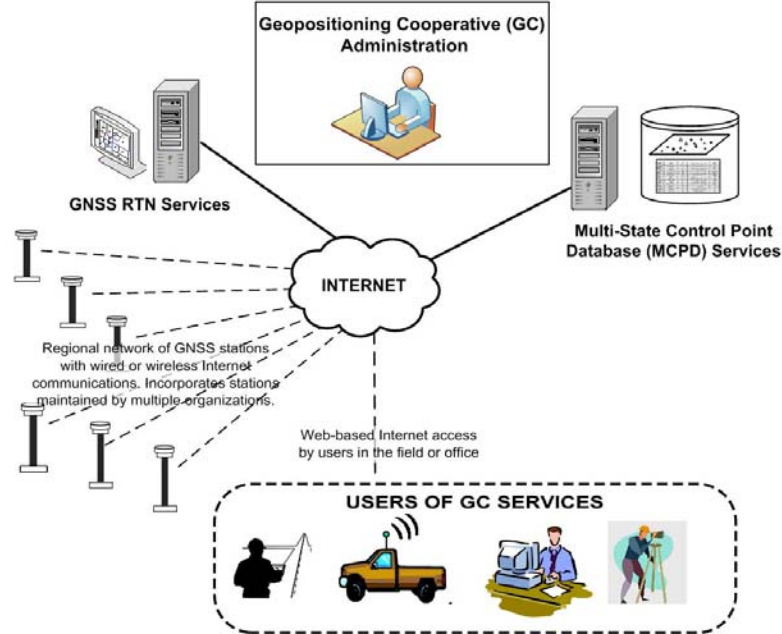




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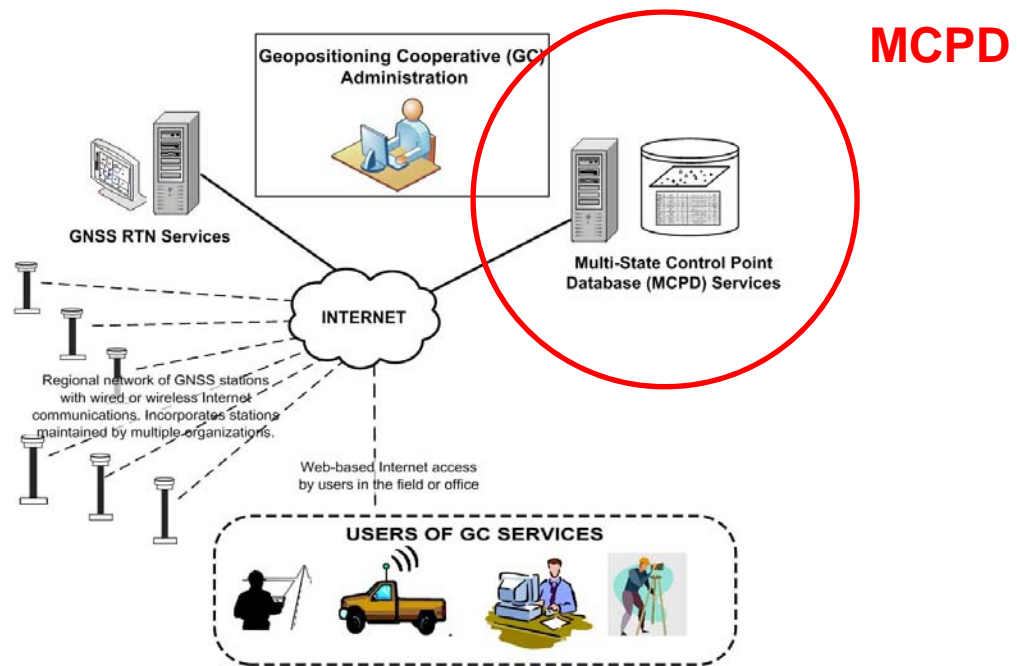
# The Bigger Picture



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# MCPD within the Big Picture



# MCPD – Web Mapping App



## MCPD Versions

### MCPD – Current Version

- Managed by Montana State Library
- ArcGIS for Server 10.0 software from ESRI
- Google API
- <http://mcpd.mt.gov/mcpd>

### MCPD – Beta Version

- Created and maintained by ISU GIS Center
- ArcGIS for Server 10.1 software from ESRI
- ArcGIS Viewer for Flex 3.1
- <http://ags.giscenter.isu.edu/flexviewers/mcpd/>



# MCPD – Web Mapping App

## Why Flex?

- Simple, yet highly functional platform
- **Minimal** download and installation requirements
  - Requires Adobe Flash plugin
- Low construction and maintenance costs
  - Eliminate additional out of office programming fees
  - Designed and maintained in house by graduate students
- Well established community of developers
- Large selection of pre-designed and enhanced widgets
- Ability to design custom widgets with little to no prior experience





Current  
Version

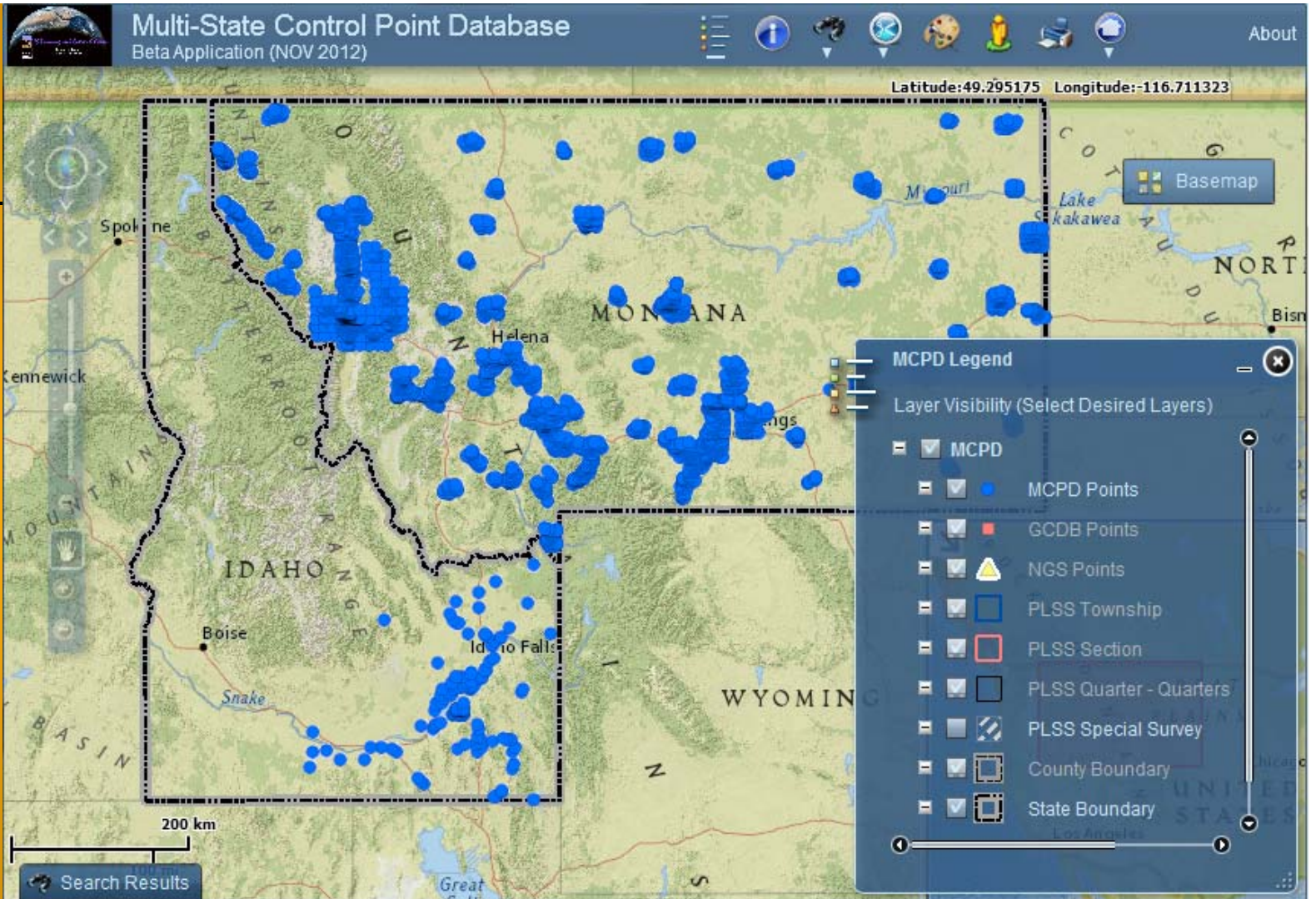
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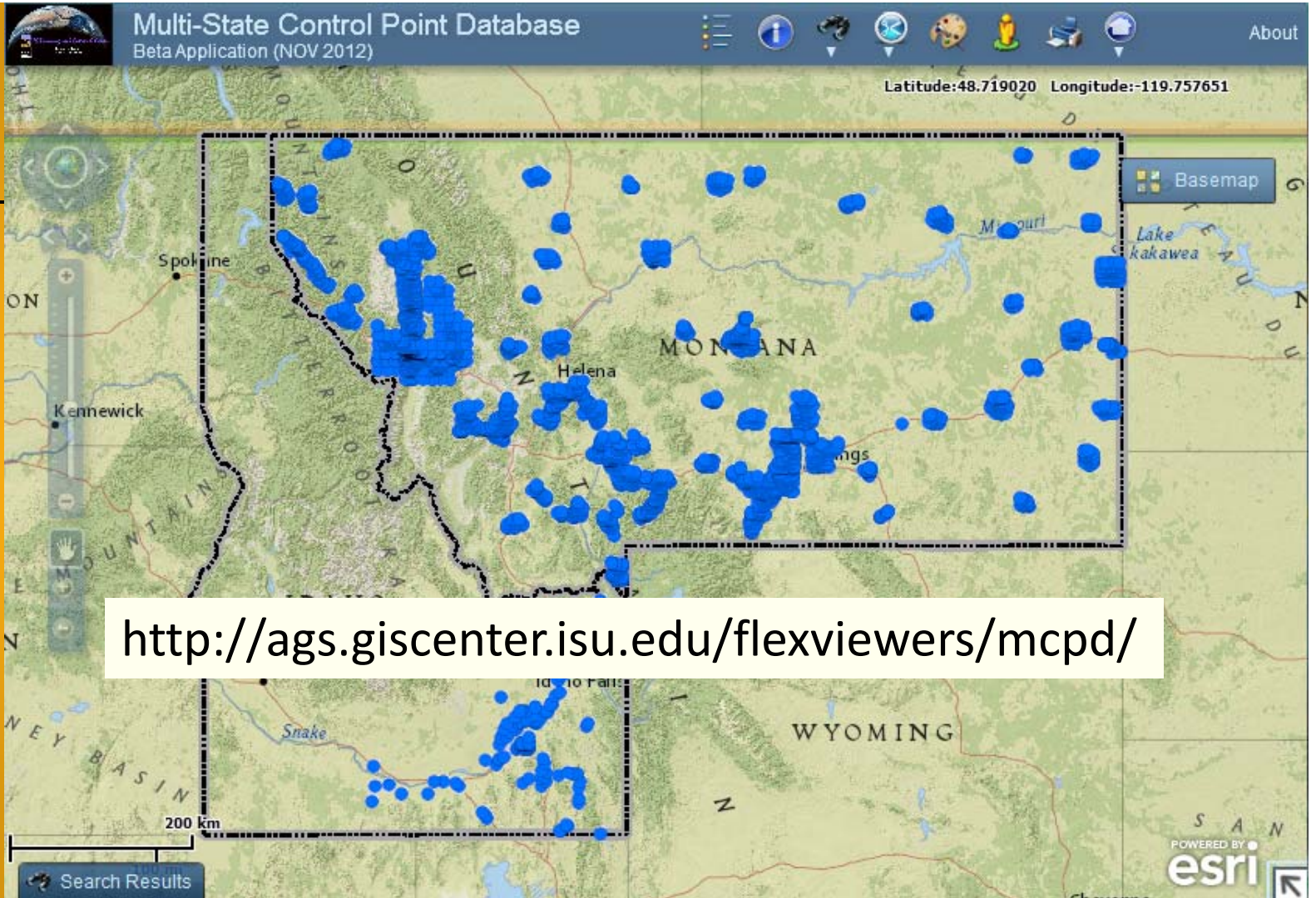
The screenshot displays a web-based GIS application interface. At the top, there are map style selection buttons for "Terrain", "Satellite", "Hybrid", and "Road". Below these is a "Map Search" input field with a "Search" button. The main map area shows a topographic view of Idaho and Montana, with numerous blue markers indicating data points. A sidebar on the right contains a "MCPD" section with buttons for "Database Search", "Map Search", "Measure Tool", "Clear Map", "Print Map", and "Street View". Below these are checkboxes for "Show Tooltips" (checked) and "Control Points" (MCPD, GCDB, NGS). A "Surveyor Login" dropdown menu is also present, along with links for "Excel Template" and "Help". At the bottom left, it says "POWERED BY Google". At the bottom right, there is a "Terms of Use" link and an inset map of Montana.



Beta  
Version

3/22/2013





# Participating Organizations



- Federal Geographic Data Committee
- Idaho Department of Transportation
- Idaho State University GIS Training and Research Center
- Information Technology Resource Management Council of Idaho
- Montana Department of Administration
- Montana Department of Transportation
- Montana State Library
- National Geodetic Survey
- Professional Land Surveyors of Montana and Idaho
- The Idaho Map – TIM
- The Montana Association of Registered Land Surveyors
- United States Bureau of Land Management
- United States Forest Service
- United States Geological Survey

# Key Developers



## The Idaho-Montana Geopositioning Cooperative

### Idaho

Donna Pitzer, Reclamation, Boise, Idaho  
Keith T. Weber, GISP, Idaho State University  
Kindra Serr, Idaho State University  
George Haskett, Idaho State University  
Rodney Burch, Dioptra Geomatics, Chubbuck, Idaho

### Montana

Bob Holiday, Montana State Library  
Stewart Kirkpatrick, Montana State Library

# References and Contact Info

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ISU GIS Training and Research Center  
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# MCPD

Questions?



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