



Missouri's Imagery for the State

How to Participate

Second in a Series

This second in a series of papers on the **Imagery for the State** project will let you know how to participate in the project, and define terminology that you may not be familiar with. These white papers are available on the Missouri Geographic Information System Advisory Committee (MGISAC) website: <http://www.mgisac.org/> under the Data Development Subcommittee. A third paper, **Funding Strategies** is planned for release June 8, 2007.

Imagery for the State:

A consortium of federal and state agencies is acquiring 2 foot spatial resolution leaf-off digital orthophotography for the state over a two-year period. In 2007 the eastern side of the state was flown with the orthorectification process currently in work. This orthorectified imagery will be made available in the late fall through MSDIS. Acquisition of the 2 foot imagery for the western side of the state will begin in the spring of 2008. The MGISAC Data Development Subcommittee is promoting use of this state-wide acquisition for local government. By participating in the project, local government can acquire higher resolution imagery such as 6 inch or 1 foot resolution for their use.

How to participate in a "buy-up"

We need you to do two things if you are interested in participating in a buy-up for this project – even if you must wait for a final cost before agreeing to participate. The first requirement is a non-binding letter of intent, on official letterhead stating that your organization is planning to participate in the **Imagery for the State** project pending further information on costs. We do not require an obligating document at this time; the letters of intent will help determine the size of the project for inclusion within the Request for Proposals which should increase competitive bidding by the contractors. The second requirement is a shapefile, map, or some other means of delineating your area of interest. Shapefiles are the preferred method as we will need to produce a map for the Request for Proposals showing the areas of interest, but it must be accompanied by a projection file (.prj) indicating the datum and projection for the shapefile.

The letter of intent, with accompanying project extent or area, needs to be received by Mr. Tony Spicci, State GIO by July 20, 2007. Plans are to submit the Request for Proposals for the **Imagery for the State** project by August 1.

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Terminology defined:

Buy-up option: The improved imagery (6 inch or 1 foot) that each participating entity pays for - above and beyond the 2 foot imagery the state is already paying for. Because there is strength in numbers the more entities that participate the lower the price should be. The information we have from other states that have pursued similar plans shows that the cost of imagery is less for those entities if they participate in larger consortiums. The fact that the state is already putting planes in the air should lower the cost of imagery purchased as part of any buy-up plan.

Image or spatial resolution: The measure of how closely lines can be resolved in an image is called spatial resolution. For practical purposes the clarity of the image is decided by its spatial and radiometric resolution, not the number of pixels in an image. In [Geographic Information Systems](#) (GIS), Spatial Resolution commonly refers to the Ground Sample Distance (GSD) of an image, or how much of the earth's surface a single pixel covers. (Wikipedia)

MGISAC: In accordance with the Governor's Initiative commenced in April 1995, the purpose of the MGISAC is to:

Foster cooperation among state, local, and federal agencies, educational institutions, private industry, and others in the field of Geographic Information Systems (GIS); Provide guidance for the Missouri Spatial Data Information Service (MSDIS) in fulfilling the objectives of the Missouri GIS Advisory Committee's Strategic Plan; Develop GIS standards for the state; Provide an arena for discussions of relevant GIS issues; Provide expert advice to the Chief Information Officer (CIO) and the GIS community on GIS related issues; Facilitate resolution of GIS issues impacting the state; Coordinate and facilitate statewide training as needed; and Work together with other states on standards and other GIS issues.

(MGISAC By-Laws)

MSDIS: MSDIS is the Missouri Spatial Data Information Service, a spatial data retrieval and archival system. MSDIS is responsible for data storage and access, standardization of both digital and tabular data, creation of the data dictionary, compilation of metadata, and statewide GIS user information networks. (MSDIS website)

Orthophotography or Orthoimagery: An orthoimage is remotely sensed image data in which displacement of features in the image caused by terrain relief and sensor orientation have been mathematically removed. Orthoimagery combines the image characteristics of a photograph with the geometric qualities of a map. (USGS metadata record)

Shapefile: The **ESRI Shapefile** is a popular [geospatial vector](#) data format for [geographic information systems](#) software. It is developed by [ESRI](#) as a (mostly) [open specification](#) for data interoperability among [ESRI](#) and other software products. A "shapefile" commonly refers to a collection of files with ".shp", ".shx", ".dbf", and other extensions on a common prefix name (e.g., "lakes."). The actual *shapefile* relates specifically to files with the ".shp" extension; however this file alone is incomplete for distribution, as the other supporting files are required. (Wikipedia)