Base Map Maintenance Project

Office of Mapping and Geographic Information updates all base map data selectively. Various parts of the county are updated from aerial photography through stereo compilation and photogrammetry.

There are three separate contracts linked with Base Map:

1. Digital Aerial Photographs
2. Digital Orthophotography
3. Base Map Updates

1. Digital Aerial Photographs

Aerial photographs play an important role in GIS data acquisition and visualization. They help provide a solid visual effect. Many people are more able to put spatial concepts into perspective when seeing photos. Digital Aerial Photos are available at OMAGI, Public Information Counter. For specific needs refer to Aerial Photo Index.

2. Digital Orthophotography

Before the Aerial Photos can be gathered in a way that is useful for a GIS system, they must be prepared in a way that removes distortion from the image. This process is called orthorectification. Orthophotographs are horizontally corrected aerial images from which distortions caused from the earth's surface and aircraft movement are removed. The result is a scale-accurate image. Loudoun County Office of Mapping and Geographic Information has countywide panchromatic/ color orthos of several years. Please refer to the table below for details:

Year	Resolution	Coverage	Type
1957	3 foot	Countywide	Black and White
2002	1 foot	Countywide	Color
2004	1 foot	Eastern Loudoun	Black and White
2005	1 foot	Countywide	Black and White
2006	1 foot	Countywide	Color
2007	1 foot	Countywide	Black and White
2008	1 foot	Countywide	Black and White
2009	1 foot	Countywide	Color
2010	1 foot	Countywide	Color

1-foot countywide digital orthos are available in these formats:

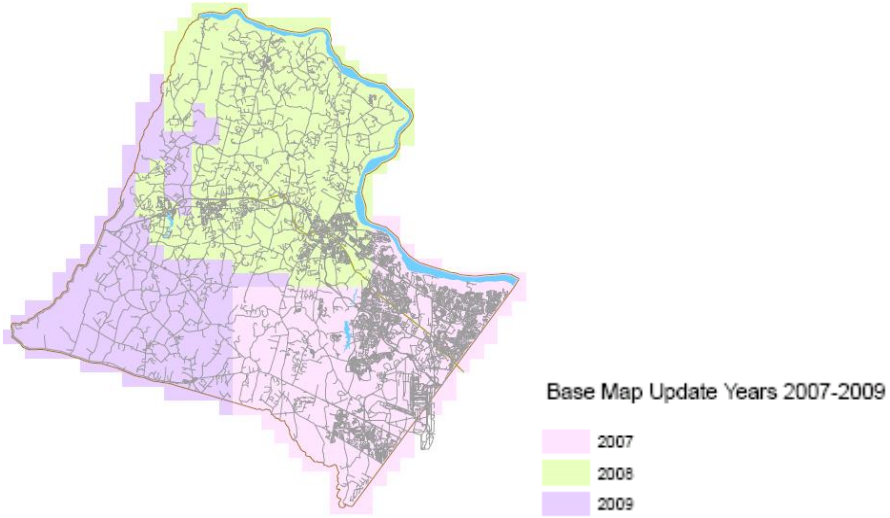
- Uncompressed GeoTIFF covering 5000' x 5000' tiles each.
- Compressed MrSID covering 5000' x 5000' tiles each.
- Single compressed MrSID comprising entire countywide extent.

Digital data is obtainable on DVD(s) from OMAGI, Public Information Counter. Updated DTM is available on request as well.

3. Base Map updates

Ground features are captured and attributed through the base map maintenance services contract. Base Map data layers include planimetric (Buildings, roads, miscellaneous cultural features), environmental (Hydrology, forest cover), and topographic (elevation contours and spot heights) features. Many annual cycles (2000 to present) of base map update contribute to the development of these layers.

Last updates were accomplished using true color 2009 VGIN digital images. In 2009 100 tiles located at the western side of the county were updated. Refer to map below.



Metadata: Metadata is available for 2010 Orthos and 2009 Base Map update layers.

Data Accuracy: All data has been tested and meets NSSDA accuracy requirements.

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