



Orthoimagery Statewide Acquisition Program

2012 - 2016 Report

The orthoimagery program was designed to leverage state, federal, county, and local stakeholder resources. The combined resources of all stakeholders resulted in a partnership that has increased the availability of high resolution imagery for over fifty percent of the state. This has reduced acquisition costs and duplication of effort one of the legislative mandates of the GeoLibrary. Through the implementation of a state wide contract the stakeholders are able to leverage cost savings resulting from economies of scale.

The initial program goal was to acquire base level two-foot resolution leaf off imagery for all of Maine's organized communities and one meter leaf off imagery for the unorganized communities. While good progress was made towards these goals it fell short with just 12 of the 16 counties participating in the program. Considering the fact that the program was initiated without general fund appropriations or bonding it has been quite successful.

The four counties not participating have large rural populations, significant areas of unorganized territories, and low property valuations relative to total area and population. Added to this even if the four counties were willing to be funding partners, the GeoLibrary would not have been able to find sufficient matching funds to complete the acquisition.

Seventy-six communities within the twelve counties participating purchased higher resolution imagery. Twelve communities purchased 3" resolution, fifty-nine have purchased six inch resolution and four have purchased twelve inch resolution imagery. Seven communities have participated twice during the five year program. Maine has never had this level of high resolution leaf off imagery for this many communities. *The average savings for each community is estimated to be \$20,000 resulting in a cumulative savings of over \$1.4 million dollars.*

Three state agencies, Transportation, Public Utilities Commission and Maine Emergency Management agency contributed \$480,000 towards this effort leveraging \$416,334 from Counties and \$50,000 from federal sources. Participating cities and towns contributed \$819,000 to increase the quality of imagery in their communities.

Benefits

For the State of Maine the benefits are numerous. This program leverages state funding at better than a 2.5 to 1 ratio through participation of communities, federal and county agencies. In addition by allowing communities to buy up to higher resolutions state agencies benefit from higher quality imagery than would normally be available to them.

For many communities, this program marked the first time they were able to purchase high resolution leaf off imagery. Participating in a large scale purchase brings economies of scale that cannot be realized at the individual community level. As noted previously all communities were able to save money on their purchase of imagery. An added benefit for communities and counties is not having to managed a request for proposal and contracting process.

The Town of Bar Harbor is a good example of cost savings for communities. In 2008 the community purchased 6” resolution imagery for \$31,800. In 2014 it purchased an identical specification product for just \$10,500. Using the state contract resulted in a savings of \$21,300. For counties this was an opportunity to assist smaller towns in having good base resolution imagery updated at an average cost of less than \$1,000 per community by participating in the group purchasing opportunity.

It is worth emphasizing that this program minimizes the cost of updating orthoimagery for all levels of government. The economies of scale leveraged through a state wide contract for services reduces the base level 24” imagery cost to just \$52.80/sq. mi. and provides a secure, reliable, well documented publicly available data set. This imagery meets rigorous QA/QC requirements of the American Society of Photogrammetry and Remote Sensing standards unlike the imagery used in commercial applications.

In fact, many commercial web-mapping services such as Google Earth, Bing and Map Quest frequently use public data sets such as the Maine GeoLibrary to provide imagery on their platforms. They do not coordinate imagery purchases to acquire leaf off imagery and mapping accuracy fails to meet ASPRS mapping standards specified in the GeoLibrary contract.

Table 1: Summary of Funding Sources for 2012 – 2016 Orthoimagery Program

Year	Community	State Commitment	Federal Commitment	County Commitment	Total Funds available
2012	\$ 315,456.00	\$ 80,000.00	\$ 20,000.00	\$ 46,833.00	\$ 462,289.00
2013	\$ 210,532.00	\$ 100,000.00	\$ 30,000.00	\$ 96,000.00	\$ 436,532.00
2014	\$ 131,000.00	\$ 100,000.00	\$ -	\$ 76,000.00	\$ 307,000.00
2015	\$ 98,777.60	\$ 100,000.00	\$ -	\$ 47,667.00	\$ 246,444.60
2016	\$ 46,755.00	\$ 100,000.00	\$ -	\$ 196,589.00	\$ 343,344.00
TOTAL	\$ 802,520.60	\$ 480,000.00	\$ 50,000.00	\$ 463,089.00	\$ 1,795,609.60

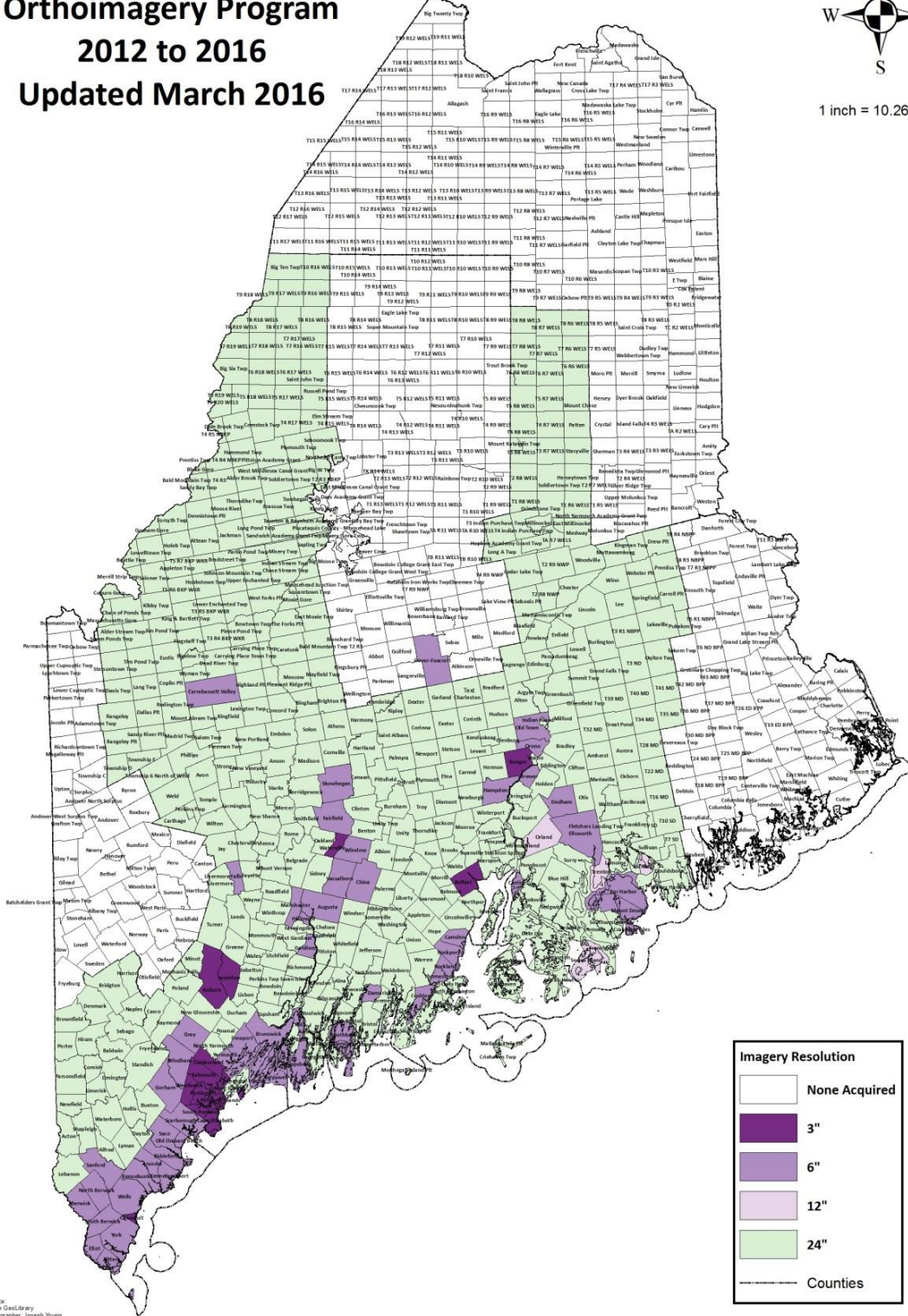
Table 2: Summary of Imagery Resolution's Purchased by Communities

Resolution	2012	2013	2014	2015	2016	Total
3" L1	0	0	1	1	0	2
3" L2	6	4	0	2	1	13
6" L1	8	6	2	0	0	16
6" L2	14	12	9	3	3	41
12" L1	0	0	0	0	0	0
12" L2	0	0	4	0	0	4
TOTAL	28	22	16	6	4	76

Maine GeoLibrary Orthoimagery Program 2012 to 2016 Updated March 2016



1 inch = 10.26 miles



Source:
Maine GeoLibrary
Cartographer: Joseph Young
Source Data:
Maine Office of GIS Boundaries
GeoLibrary Imagery Resolution
Date: March 23, 2016



**We don't make the maps;
We make the maps better!**



COMMUNITIES BUYING UP TO HIGHER RESOLUTION
(If listed twice they participate twice)

Arundel
Auburn
Augusta
Bangor
Bar Harbor
Bath
Belfast
Biddeford
Boothbay
Boothbay Harbor
Brewer
Brunswick
Camden
Cape Elizabeth
Cape Elizabeth
Carrabassett Valley
Castine
China
Cranberry Isles
Cumberland
Cushing
Damriscotta
Dedham
Dover Foxcroft
Eliot
Eliot
Ellsworth
Fairfield
Falmouth
Freeport
Gardiner
Gorham
Gray
Hallowell
Hampden
Harpwell
Kennebunk
Kennebunkport
Kittery

Lewiston
Livermore Falls
Manchester
Mount Desert
North Berwick
Ogunquit
Ogunquit
Old Orchard Beach
Old Orchard Beach
Old Town
Orland
Orono
Phippsburg
Portland
Portland and Islands
Rockland
Rockport
Saco
Sanford
Scarborough
Skowhegan
Sorrento
South Berwick
South Portland
Swans Island
Thomaston
Trenton
Vassalboro
Veazie
Waterville
Wells
Wells
Westbrook
Windham
Winslow
Yarmouth
York
York