



Feasibility of Imagery for the Nation

National Digital Orthoimagery
Program Committee
FGDC Steering Committee Briefing
September, 2015
Shirley Hall, NDOP 2015 Chair

National Digital Orthoimagery Program Committee

- Established in the mid 1990s and annexed as a FGDC Sub-committee in 2008.
- Responsible for developing, promoting, and executing a national strategy for the acquisition and development of orthoimagery data for Federal agencies while creating and utilizing partnerships with State, local, tribal, and private organizations.
- Members represent 14 Federal Agencies and the National States Geographic Information Council.



GAO: Reassess Imagery for the Nation (IFTN)

GAO Report Geospatial Data (15-193 Geospatial Data) recommended that the Secretary of Interior, as the Federal Geographic Data Committee (FGDC) Chair, direct the FGDC Steering Committee to take the following action:

“Direct the National Digital Orthoimagery Program to reassess the feasibility of the “Imagery for the Nation” initiative, with the goal of identifying discrete steps that could be taken to further a national imagery program benefitting governments at all levels.”

Background of IFTN

- In October 2005, the National States Geographic Information Council (NSGIC) proposed IFTN to the FGDC based on a recognized need for government agencies to collaborate on imagery acquisitions.
- FGDC asked the NDOP to review the proposal and develop a business plan and budget strategy for IFTN.
- NDOP began meetings in November 2005, and on January 2006 reported back to FGDC:
 - Original NSGIC proposal adjusted to include Federal, State and local requirements.
 - Budget appeared to be well developed.
 - Business plan was begun, but not completed.
 - Executive support would be required to identify suitable funding and a committee should be appointed prior to Federal fiscal year 2008 submission.

Background of IFTN

- FGDC Steering Committee created an Executive Subcommittee (ExCom) to pursue funding options.
- Federal agencies directed to put line item in their 2008 budget submissions for IFTN, but no funding solutions were offered.
- ExCom asked to include IFTN in the Geospatial Line of Business (GLOB), but realizing that no new funds would be identified, it was dropped from consideration in GLOB activities.
- 2006 Cost Benefit Analysis (CBA) funded by FSA and USGS – analysis released in June 2007 showed a positive ROI, based on a limited number of existing programs. A later, more comprehensive survey showed the ROI to increase after considering additional inputs.
- May 2007, separate component workgroups (governance, technology, communications, contracting, partnerships, data hosting and archiving, and funding) were established to make recommendations. Investigations of work groups demonstrated that IFTN was feasible and could be implemented if funds were available.
- 2007-2008, National economy decline due to the housing and mortgage crisis – no further action was taken on IFTN.

NDOP Assessment of Feasibility of a National Orthoimagery Program

- NDOP members met in Shepherdstown WV in May, 2015 and met again via telephone conferences in June.
- Recognized the importance of a national imagery program that meets needs of widest possible audience of local, State and Federal imagery users.
- Found that most issues and challenges that led to the 2005 IFTN proposal are still relevant 10 years later.
- Much has changed in imagery acquisition industry over the past 10 years.
- Much has changed organizationally at the Federal level.

NDOP Current Assessment of Feasibility

Industry Change

- Advancements in sensors and related technologies and the National Agriculture Imagery Program as a long term, consistent program have worked to:
 - drive down costs
 - streamline vendor processes and turn around times.
- Commercial satellites and Unmanned Aircraft Systems have now achieved a spatial resolution that meets higher resolution needs of some users.

NDOP Assessment of Feasibility

Organizational Changes at the Federal Level

- NGA is transferring responsibility of the Homeland Security Infrastructure Program (HSIP) to the DHS and have stated to NDOP that they will discontinue the 133-Cities Urban Area Imagery component of HSIP.
- USGS Geospatial Liaisons are no longer involved in fostering high resolution imagery acquisition partnership with State and local governments.

NDOP Assessment of Feasibility

Barriers to the Implementation of a High-Resolution, Nationwide Program

- No Executive Champion has stepped forward to push for development.
- Without support at highest levels of Federal government to make this program a reality, little progress is expected.
- No Federal Agency has a mandate to develop a high-resolution, comprehensive, national imagery program addressing all major imagery needs.
- The increase in funding required to fully implement the high-resolution component of IFTN may not be realistic in today's Federal fiscal climate.

NDOP Assessment of Feasibility

What Must Continue

- NAIP continues to thrive under USDA-FSA as a 1-meter resolution, leaf-on program.
- Other highly-specialized imagery programs must not be interrupted or incorporated into a full coverage program (e.g., NOAA's shoreline imagery program).

Potential Options

- A state-centric approach to developing high-resolution, leaf-off, nationwide aerial imagery. In this model:
 - States would operate their own imagery program via a shared service contract.
 - Partnership funding would be contributed by Federal government (at a TBD level) based on requirements to offset state and local costs.
 - Will not be operated consistently in all States, leaving some gaps or variations in nation coverage.
- Commercial Procurement of imagery as a service.

Next Steps

- Progress towards a national imagery program will remain stagnant until barriers are addressed.
- Work needs to be done to identify:
 - today's costs
 - commercial options
 - the full range of technical requirement for Federal, State and local government.
- Once compiled, this information will generate suitable alternatives that provide cost-saving, partnership opportunities.

In Closing

- NDOP finds that a national imagery program is technically feasible and cost beneficial.
- However, there is no executive champion, mandate or funding. Without these three features, this initiative cannot succeed.
- NDOP recommends that the FGDC Steering Committee decide to what extent this initiative should, or should not, be pursued.
- To be successful, we must consider new alternatives, update the existing alternatives and costs, and identify the funds require to facilitate implementation.