



Theme Implementation Plan for Imagery Theme

Department of Agriculture
Department of Interior

Federal Geographic Data Committee (FGDC)

October 31, 2019



Imagery Theme Fiscal Year (FY) 2019 Implementation Plan Report



Overview

As part of meeting the requirements under [OMB Circular A-16 Supplemental Guidance](#) and [OMB Circular A-16 Appendix E – National Geospatial Data Assets \(NGDA\) Data Themes, Definitions, and Lead Agencies](#) for NGDA Portfolio Management and NGDA Theme Management, NGDA Theme Leads, in coordination with associated NGDA Dataset Managers, have developed Theme Strategic Plans and corresponding Implementation Plans for each Theme in the NGDA Portfolio. This report provides information on implementing the goals, objectives, and actions outlined in the Theme’s Strategic Plan (link below). The report includes information on Theme Personnel (Table 1), NGDA Datasets associated with the Theme (Table 2), and the human and financial resources needed to manage the Theme (Table 3). Table 4 provides a status update on progress made in in the current reporting period toward meeting Theme Strategic Plan goals and objectives. Table 5 provides details on the Theme Implementation Plan.

Theme Strategic Plan

https://communities.geoplatform.gov/ngda-imagery/wp-content/uploads/2018/04/Imagery_Theme_Strategic_Plan_20160715.pdf

Theme Personnel

Theme personnel play a vital role in the operation and maintenance of a Theme. They are “individuals who provide interdepartmental leadership and coordination at the NGDA Theme level. They work with component NGDA Dataset Managers to develop standards and provide guidance. The NGDA Theme Lead, or designee, chairs the NGDA Theme’s Thematic Committee and manages the annual process of providing NGDA Dataset collaboration and funding recommendations to the FGDC Steering Committee for those NGDA Datasets within their NGDA Theme. Additionally, the NGDA Theme Lead reports to the Executive NGDA Theme Champion and the FGDC Coordination Group on the NGDA Theme’s activities and investments (both current and planned).” Table 1 provides a summary of current Theme Personnel and Table 2 lists the NGDA Datasets that comprise the Theme. Imagery Theme NGDA datasets are managed by the Department of Commerce (DOC) National Oceanic and Atmospheric Administration (NOAA), Department of Interior (DOI) United States Geological Survey (USGS), National Aeronautics and Space Administration (NASA) and United States Department of Agriculture (USDA) USDA Farm Production and Conservation (FPAC).

Theme Personnel	
Theme Lead (Co-Leads):	John Mootz Greg Snyder
Theme Lead Agency(ies):	USDA FPAC Business Center (FBC) DOI USGS
Executive Theme Champion(s):	Shirley Hall (Acting) Tod Dabolt
Executive Champion Agency(ies):	USDA DOI

Table 1. Personnel Involved in Theme Management

Imagery Theme NGDA Datasets	NGDA Agency
NOAA Coastal Mapping Remote Sensing Data	DOC / NOAA
Landsat 1-5 Multispectral Scanner (MSS)	DOI / USGS
Landsat 4-5 Thematic Mapper (TM)	DOI / USGS
Landsat 7 Enhanced Thematic Mapper Plus (ETM+) Scan Line Corrector (SLC) Off	DOI / USGS
Landsat 8 Operational Land Imager (OLI) and Thermal Infrared Sensor (TIRS)	DOI / USGS
USGS High Resolution Orthoimagery Collection - Historical	DOI / USGS
Advanced Spaceborne Thermal Emission and Reflection Radiometer (ASTER)	NASA
Moderate Resolution Imaging Spectroradiometer (MODIS) - Aqua	NASA
Moderate Resolution Imaging Spectroradiometer (MODIS) - Terra	NASA
National Agriculture Imagery Program (NAIP) Imagery	USDA / FPAC

Table 2. NGDA Datasets within the Theme

Human and Financial Resources Needed for Theme Management

The following table provides an estimate of resources needed for managing this Theme. It includes different activities and the roles that support them, as well as an estimated decimal Full Time Equivalent (FTE) and FTE grade. This estimate does not include the resources required for the agency to develop and maintain the NGDA Datasets that make up the Theme to meet the agency’s core mission requirements.

Reporting Period for Human and Financial Resources¹: October 1, 2018 – September 30, 2019

Description of Theme Management Activities	Role <i>(Theme Lead, Theme Co-Lead, NGDA Coordinator, other as specified)</i>	FTE ²	FTE Grade
NGDA Theme management (e.g., attend meetings, review NGDA documents, develop Theme Strategic Plans, etc.)	FBC Theme Co-Lead	.2	14
NGDA Theme management (e.g., attend meetings, review NGDA documents, develop Theme Strategic Plans, etc.)	USGS Theme Co-Lead	.2	15
Other Theme administration activities			

Table 3. Human and Financial Resources Needed for Theme Management

¹ Reporting period should align with October 1, 2018 – September 30, 2019 and be submitted by October 31, 2019.

² A full-time employee was available a maximum of 1952 hours during the inclusive period of October 1, 2018 – September 30, 2019; assuming a Monday-Friday schedule with 8-hour workdays and not counting Federal Holidays. The FTE was determined by taking actual number of hours worked in support of Theme Management divided by 1952 hours, rounded to the nearest 0.01.

Progress against Goals and Objectives

The following table shows the progress status made toward achieving the Theme’s Strategic Plan goals and objectives since the last reporting period. Status categories include 'Not Started' for those activities that have not gotten underway in the reporting period; 'In Progress' for those activities underway which will continue into the next year; 'Complete' for the activities finished, or 'Recurring (completed for the current reporting period).

Summary of Goals and Objectives for FY2019	Status
Goal 1: Identify Civil User Needs and Sources of Imagery Data	
Objective 1.1. Document civil agency user needs for imagery data	In Progress
Objective 1.2. Document imagery data sources that potentially meet user needs	In Progress
Goal 2: Analyze Identified Imagery Data Sources and Assess Optimal Mix	
Objective 2.1. Analyze ability of imagery data sources to meet user needs	In Progress
Objective 2.2. Assess optimal mix of imagery data sources to meet user needs	In Progress
Goal 3: Evaluate and Recommend Imagery Data Source Alternatives and Acquisition Methods	
Objective 3.1. Evaluate suitability of imagery data source alternatives	In Progress
Objective 3.2. Evaluate methods of acquisition for imagery data source alternatives	In Progress

Table 4. Theme Implementation Plan Progress Status

Theme Implementation Plan

The following table provides details for achieving Theme Strategic Plan goals and objectives over the multi-year planning period. These include roles and responsibilities, specific actions, milestones, performance indicators and projected completion dates.

Goal 1: Identify Civil User Needs and Sources of Imagery Data				
Objective 1.1: Document civil agency user needs for imagery data				
Agencies and/or Stakeholders Involved: Theme Leads, National Digital Orthoimagery Program (NDOP) and NGDA Collection Agencies				
Anticipated Outcome: Develop database of civil agency user needs for imagery data				
Actions	Milestones	Performance Indicators	Action Responsibility	Projected Completion Date
1.1.1 Conduct systematic elicitations of identified NGDA Collection Agency subject matter experts (SMEs) to document system-	Submit comprehensive database of user needs for imagery data to NGDA Collection Agency SMEs for review	NGDA Collection Agency SME validation of database of user needs for imagery data	Theme Leads, NDOP and NGDA Collection Agencies	FY2020

agnostic civil agency (Federal, state, local) user needs for imagery across various application areas and spatial resolutions				
Agencies and/or Stakeholders	Relevant activity during FY2019			
Theme Leads, NDOP and NGDA Collection Agencies	Monthly DOI Remote Sensing Working Group WebEx meetings			
	Monthly NAIP teleconferences			
	NDOP 2019 Spring Meeting at NOAA in Charleston, South Carolina, April 15-17			
Objective 1.2: Document imagery data sources that potentially meet user needs Agencies and/or Stakeholders Involved: Theme Leads, NDOP and NGDA Collection Agencies Anticipated Outcome: Develop database of imagery data sources that potentially meet user needs				
Actions	Milestones	Performance Indicators	Action Responsibility	Projected Completion Date
1.2.1 Develop comprehensive database of civil, commercial and foreign multi-mission imagery data sources that potentially satisfy documented user needs	Present database of civil, commercial and foreign multi-mission imagery data sources to NGDA Collection Agency SMEs for review	NGDA Collection Agency SME validation of database of civil, commercial and foreign multi-mission imagery data sources	Theme Leads, NDOP and NGDA Collection Agencies	FY2020
Agencies and/or Stakeholders	Relevant activity during FY2019			
Theme Leads, NDOP and NGDA Collection Agencies	Monthly DOI Remote Sensing Working Group WebEx meetings			
	Monthly NAIP teleconferences			
	NDOP 2019 Spring Meeting at NOAA in Charleston, South Carolina, April 15-17			

Goal 2: Analyze Identified Imagery Data Sources and Assess Optimal Mix				
Objective 2.1: Analyze ability of imagery data sources to meet user needs				
Agencies and/or Stakeholders Involved: Theme Leads, NDOP and NGDA Collection Agencies				
Anticipated Outcome: Update database of imagery data sources to include results of analyses				
Actions	Milestones	Performance Indicators	Action Responsibility	Projected Completion Date
2.1.1 Analyze civil, commercial and foreign multi-mission imagery data sources that potentially satisfy documented user needs	Present findings from analyses of civil, commercial and foreign multi-mission imagery data sources to NGDA Collection Agency SMEs for review	NGDA Collection Agency SME validation of findings from analyses of civil, commercial and foreign multi-mission imagery data sources	Theme Leads, NDOP and NGDA Collection Agencies	FY2020
Agencies and/or Stakeholders	Relevant activity during FY2019			
Theme Leads, NDOP and NGDA Collection Agencies	Monthly DOI Remote Sensing Working Group WebEx meetings			
	NDOP 2019 Spring Meeting at NOAA in Charleston, South Carolina, April 15-17			
Objective 2.2: Assess optimal mix of imagery data sources to meet user needs				
Agency and/or Stakeholders Involved: Theme Leads, NDOP and NGDA Collection Agencies				
Anticipated Outcome: Update database and inform civil agency users of Goal 2 conclusions				
Actions	Milestones	Performance Indicators	Action Responsibility	Projected Completion Date
2.2.1 Identify optimal mix of civil, commercial and foreign imagery data sources to meet range of user needs or fill key data gaps	Present findings from assessment of optimal mix of civil, commercial and foreign imagery data sources to NGDA Collection Agency SMEs for review	NGDA Collection Agency SME validation of findings from assessment of optimal mix of civil, commercial and foreign imagery data sources	Theme Leads, NDOP and NGDA Collection Agencies	FY2020
Agencies and/or Stakeholders	Relevant activity during FY2019			
Theme Leads, NDOP and NGDA Collection Agencies	Monthly DOI Remote Sensing Working Group WebEx meetings			
	NDOP 2019 Spring Meeting at NOAA in Charleston, South Carolina, April 15-17			

Goal 3: Evaluate and Recommend Imagery Data Source Alternatives and Acquisition Methods

Objective 3.1: Evaluate suitability of imagery data source alternatives

Agencies and/or Stakeholders Involved: Theme Leads, NDOP and NGDA Collection Agencies

Anticipated Outcome: Update database of imagery data sources to include results of evaluation

Actions	Milestones	Performance Indicators	Action Responsibility	Projected Completion Date
3.1.1 Evaluate key imagery data source alternatives in terms of coverage, quality, ease of use, breadth of applicability, licensing, costs, etc. and develop recommendations to inform potential investment and acquisition decisions	Present results of imagery data source alternatives evaluation and corresponding recommendations to NGDA Collection Agency SMEs and NDOP members for review	Validation of evaluation results and recommendations by NGDA Collection Agency SMEs and NDOP members	Theme Leads, NDOP and NGDA Collection Agencies	FY2020

Agencies and/or Stakeholders

Relevant activity during FY2019

Theme Leads, NDOP and NGDA Collection Agencies

Monthly DOI Remote Sensing Working Group WebEx meetings

NDOP 2019 Spring Meeting at NOAA in Charleston, South Carolina, April 15-17

Objective 3.2: Evaluate methods of acquisition for imagery data source alternatives

Agency and/or Stakeholders Involved: Theme Leads, NDOP and NGDA Collection Agencies

Anticipated Outcome: Update database and inform civil agency users of Goal 3 recommendations

Actions	Milestones	Performance Indicators	Action Responsibility	Projected Completion Date
3.2.1 Evaluate methods of acquisition for imagery data source alternatives including contracts, agreements, technology development, etc.	Present evaluation results of acquisition methods for imagery data source alternatives and corresponding recommendations to NGDA Collection Agency SMEs and NDOP members for review	Validation of evaluation results and recommendations by NGDA Collection Agency SMEs and NDOP members	Theme Leads, NDOP and NGDA Collection Agencies	FY2020

Agencies and/or Stakeholders	Relevant activity during FY2019
Theme Leads, NDOP and NGDA Collection Agencies	Monthly DOI Remote Sensing Working Group WebEx meetings
	NDOP 2019 Spring Meeting at NOAA in Charleston, South Carolina, April 15-17

Table 5. Theme Implementation Plan