



September 19, 2018

Attention: landsatdatapolicy@usgs.gov

United States Geological Survey
U.S. Department of the Interior
1849 C Street NW
Washington D.C., 20240

Dear Sir/Madam:

The National Association of State Foresters (NASF) is comprised of the heads of forestry agencies in all 50 states, the U.S. territories, and the District of Columbia. NASF members promote the proper management of over 500 million acres of state, local, and privately owned forestland and regularly work with partners to conserve, protect, and enhance an additional 265 million acres of federally owned forestland.

The data and mapping resources provided by the U.S. Geological Survey's Landsat program are vital to the work of state foresters and the more than 26,000 employees they employ and direct nationwide. Some months ago, NASF was made aware that USGS was considering charging users for access to Landsat data. We also understand the USDA Farm Service Agency (FSA) is considering charging for access to National Agricultural Imagery Program (NAIP) imagery, another vitally important resource to our members.

Since both of these resources are used for similar, critical state forestry functions, NASF surveyed its member states to determine what effect charging for Landsat and NAIP access would have on their day-to-day operations and long-term conservation planning. Their concerns about the proposed changes are attached.

In summary, state foresters are most concerned about:

- **Precedent and funding.** Providing access to Landsat and NAIP, both federal programs, free of charge has been a long-standing practice. No state forestry agency is in a financial position to pay for these resources at present.
- **Capacity.** Landsat and NAIP are critical to protecting communities from wildfire, managing insect and disease threats, planning timber harvests and other forest management activities, and advising private landowners on how best to manage their natural resources. Without federally supported access to Landsat and NAIP data, the

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capacity of state foresters to carry out their responsibilities would be reduced and the condition of U.S. forestland would be diminished.

As you know, the societal and environmental benefits provided by forests are substantial. The nation’s wood and paper products industries directly support over 3 million jobs – that’s about 2 percent of all the jobs in the U.S. It’s estimated that 53 percent of the lower 48 states’ drinking water originates from forests; and 14 to 15 percent of the nation’s annual carbon emissions are offset each year by U.S. forests and wood products. Recreational opportunities, wildlife habitat and scenic landscapes are also important public benefits derived from these lands.

We understand that FSA has put their decision regarding NAIP imagery on an indefinite hold and are hopeful it will ultimately decide to forgo charging a fee for NAIP data. We hope that the USGS will elect to forgo charging for Landsat data as well.

We appreciate the opportunity to provide comments on this important issue, and look forward to further dialogue with your agency if any proposal to charge for Landsat data is moved forward.

Sincerely,

George Geissler
NASF President
State Forester of Washington

Attachment: LANDSAT data usage_Final_09192018

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State Forestry Agency Input: Importance of LANDSAT and NAIP Data

Oregon

The use of Landsat imagery continues to be critical to the Oregon Department of Forestry (ODF) for mapping the composition and structure of Oregon's forests. Landsat also provides data fundamental to monitoring and managing forest disturbances, including fire and a spectrum of insects and disease.

Over the past two decades, ODF has partnered with university researchers and federal forest management agencies to produce a time series of quantitative maps of Oregon's forests. The analytical methods to produce these maps are based on free access to annual Landsat data and require searching through hundreds of Landsat images (collected from the 1970s to the present) to find those free of clouds and other imperfections. This innovative forest mapping product depends on free Landsat data; without it, there would not be sufficient financial resources for research and production.

ODF also makes extensive use of National Agriculture Imagery Program (NAIP) imagery in order to quantify and map long-term land use change throughout Oregon. The *Forests, Farms & People* reports produced by ODF (in collaboration with federal and university partners) track the conversion of forest, agricultural, and range lands to urban/residential uses based upon photointerpretation of NAIP imagery. To this end, ODF has utilized the NAIP compressed county mosaics (CCMs) for all Oregon counties from 2005, 2009, and 2014, and plans to continue the project using the 2018 Oregon CCMs as soon as they become available.

Free access to NAIP imagery has also allowed ODF to obtain CCMs for Washington at no additional cost, enabling comparison of land use trends between the two states according to the same photointerpretation methodology. Imposition of a fee for access to NAIP imagery could potentially have a significant impact on project costs, since a fee that is nominal for localized uses could become significant when obtaining imagery for an entire state.

Utah

The State of Utah's Division of Forestry, Fire and State Lands (FFSL) is heavily dependent upon remotely sensed data to fulfill its daily mission of providing services to the people of Utah. Any additional costs associated with data acquisition of NAIP or LANDSAT data could adversely impact the Division's operations by limiting the tools available for employees to complete their mission.

In Utah, the National Agricultural Imagery Program (NAIP) data is stored and accessed through the Utah Automated Geographic Reference Center or AGRC, a state-run web portal that provides free access to a variety of geospatial data sets. The Division does not specifically track the precise number of downloads staff request from the AGRC, but needless to say that NAIP imagery provides the background data for numerous project planning, fire briefing, and forestry and sovereign lands maps of all kinds on a nearly continuous basis. With no cost associated with accessing this data historically, no programs within the Division have budgets to accommodate for a sudden cost for access. To add a cost to the creation of basic project planning maps and briefing materials would be prohibitive and impact the daily operations of all programs within the Division.

Additionally, Landsat data sets are at the heart of FFSL's wildfire risk assessment mapping. The Division currently operates the Utah Wildfire Risk Assessment Portal (UWRAP) to display geo-spatial data associated with wildfire risk. This web portal provides service not only to members of the public but also

to professional land/fire managers in the form of data analysis that is dependent upon fuel and vegetation models derived from and provided by Landsat and LANDFIRE. The expense of operating, maintaining, enhancing, and updating the UWRAP is not insignificant. The Division has relied upon both external funding through grants as well as internal funds to further the UWRAP effort and additional costs associated with data acquisition have not been factored into further development.

Missouri

Both the USGS's Landsat and USDA's National Agricultural Imagery Program (NAIP) are mission critical to the Missouri Department of Conservation, especially the Forestry Division. The NAIP program is used nearly daily by field staff when they prepare maps for landowner site visits, state land forest inventory, and timber sale recommendations. The NAIP imagery is also used to make maps for the realty committee and the Conservation Commission. In addition to providing aerial imagery, NAIP imagery has a near-infrared band that can be used in some remote sensing applications, such as the Normalized Difference Vegetation Index (NDVI). NDVI is an assessment of the health of the chlorophyll in leaves and a widely used index for monitoring forest health. This is, perhaps, also the Division's greatest use of Landsat.

While NAIP imagery is used nearly daily by our Division, it has several limitations that necessitate the use of Landsat. NAIP has high resolution (typically 1 meter or better), but the resulting images are smaller and more numerous. A single NAIP image covers an area approximately 4 miles by 4 miles, thus, it is more time consuming and costly to perform analysis on NAIP images. Contrastingly, a single Landsat scene covers approximately 106 miles north-to-south by 114 miles east-to-west. This makes Landsat an ideal candidate for large scale analysis projects. Additionally, Landsat senses 11 spectral bands (assuming Landsat 8; Landsat 7 has 8 bands, Landsat 5 has 7 bands), while NAIP senses only 4.

The Department using Landsat mostly in remote sensing applications for forest health and change detection. Some recent Department projects that have used Landsat include remote sensing of Rapid White Oak Mortality, remote sensing of Oak Decline, land cover classification, and land cover change detection. Landsat will also play a vital role in the upcoming update of the state's Forest Action Plan, as statewide analysis will be critical to generating data needed for the issue themes included in the plan. Purchasing this information from either the federal government or a private entity would add significant expense and delay development of the Forest Action Plan and all other geospatial research conducted by the Department.

The Department has a critical, demonstrable need for both NAIP and Landsat products. These products in tandem are ubiquitous to our field, research, and planning operations. Without either of these products, or having to purchase them, we would suffer serious degradation of our mapped data. Additionally, purchasing these products would add significant financial strain to our already strained budget. Lastly, it should be noted that this data is already supported by tax payers, thus requiring another taxpayer supported entity to pay for it will amount to double taxation by proxy.

Wisconsin

Wisconsin Department of Natural Resources, Division of Forestry is a regular user of digital orthophotos and satellite imagery. Having up-to-date, regularly acquired, quality imagery collected statewide greatly

benefits the division (450-500 staff), our regional partners (internal and external), and the public. Forestry uses NAIP and LANDSAT in three important categories: in the field (e.g. by mobile apps or hardcopy maps), in web mapping applications, and as an input in spatial analyses.

Forestry field staff regularly use NAIP imagery for navigation, field plot generation, heads up geo-referencing of features on screen, change detection, and site visit preparation. Data is consumed either in GIS or through several business focused internal and external facing web mapping applications where NAIP imagery is the most popular base map for its consistent coverage and resolution statewide. Examples include a web mapping site where the public can search for hunting land on private lands enrolled in one of our tax law programs (Private Forest Lands Open to Public Recreation), Wisconsin's Forest Inventory and Reporting System (WisFIRS) used by staff to conduct timber and habitat management, and Forestry's Independent Forest Fire Reporting System (IFFRS) used by dispatchers and suppression specialists to help locate wildfires, manage the response by anticipating the impact and spread of an event, and assign resources throughout the state. The regular schedule of NAIP acquisition also enables enforcement staff to assess conditions before and after a crime or violation.

Forestry staff also use NAIP imagery for disturbance monitoring and canopy calculations. Currently, NAIP (4-band) is used as the primary input to our urban forestry canopy tool and future iterations of NAIP will be invaluable to conduct change detection.

Both NAIP and LANDSAT are used by the Division as a common analysis input, in particular to conduct change detection and measuring the extent and impact of an event such as a natural disaster or forest health outbreak. LANDSAT derived products, such as LANDFIRE (impacts to fire program funding), National Agriculture Statistics Service (NASS), and National Land Cover Database (NLCD) are common inputs in event impact studies to assess before and after conditions and are consulted to determine program assistance (ex. Normalized Difference Vegetation Index conducted on Landsat data).

In addition, LANDSAT data was recently used as the primary imagery input in the State of Wisconsin's "WISCLAND 2.0" product to remap cover type across the state to a level not provided by NLCD. WISCLAND 2.0 is the definitive cover type dataset for Wisconsin, and is used by researchers, students, public institutions, and private and non-profit groups around the state and region. The WISCLAND 2.0 project was funded through FWS grants by the WDNR and is freely available. Without free access to Landsat data, the project may not have been conducted. Ideally, WISCLAND would be re-mapped every 5-10 years.

Loss of easy access to these datasets would impact the utility of products that staff, partners, and the public interface with every day. Alternatively, money would need to be diverted from other priority program projects at the state and local levels to fund this necessary aspect of our staff's day to day work.

Michigan

Michigan has over 4 million acres of state land under the jurisdiction of the Forest Resources Division (FRD) and another 600,000 acres of state parks and game areas. There are over 20 million acres of forestland in Michigan.

Managing over 4 million acres of Department of Natural Resources' (DNR) lands requires substantial investment in mapping, GIS, and other analytical resources to support a staff of some 300 professional foresters and wildlife biologists. Several million dollars have been spent developing integrated inventory and analytical systems to provide land managers with information on both the spatial and statistical aspects of forest utilization and sustainability.

Each year, FRD updates forest and other vegetation cover types on 400,000 acres of state-managed land. Aerial imagery acquired during summer months is necessary for this effort. The importance of leaf-on imagery is reflected in numerous aerial acquisition projects undertaken by the DNR over the years:

- 1978: Statewide, color infrared film, 1:24000 scale
- 1986-1988: Statewide, black-and-white infrared film, 1:15840 scale
- 1997-1999: Statewide, black-and-white infrared film, 1:15840 scale
- 2001-2003: State land only, four-band digital, orthorectified, 1-meter pixel scale

Since 2005, the DNR has depended on the NAIP program because it meets many of its business needs for leaf-on imagery:

- Statewide scope
- Repetitive coverage
- Consistent specifications
- Four-band digital capture
- Orthorectified

Managing FRD land requires other imagery resources as well to support infrastructure mapping such as roads, bridges, and culverts for access and logging; recreational trails for hunting and hiking; and ongoing property transactions for acquisitions, disposals, exchanges, and trespass resolutions. The DNR currently contributes \$100,000 annually to a state-county cooperative program for leaf-off aerial imagery to accommodate these needs.

The cover type mapping generated from leaf-on imagery supplied by the NAIP program is a fundamental component of FRD operations and directly affects the following:

- Generation of operating revenue from timber sales (\$30-45 million annually)
- Meeting timber management per state plans
- Investment of over \$2 million in development of the automated Vegetative Management System (VMS)-DNR's timber sale management software, and the Michigan Forest Inventory (MiFi) system
- Participation in Good Neighbor Authority projects on three national forests in Michigan
- Forest certification credentials
- Wildlife habitat management

The ability of FRD to undertake imagery acquisition projects comparable in scope to the NAIP program and meet the image resolution of past DNR projects is cost prohibitive. Experience by this agency in funding such projects has shown there is no interest by other state departments in participating in leaf-on aerial acquisition. Even within the DNR, support from other divisions to cover federal funding reductions is not feasible because of current budget commitments to numerous interdivisional projects.

The importance of the NAIP program to FRD operations cannot be overstated. From the standpoint of this state agency, a longer repetitive cycle would be a more viable option than imposing a licensing fee to maintain the current cycle.

Maryland

In recent years, the Maryland Forest Service has relied heavily on National Agricultural Imagery Program (NAIP) data products for daily map creation, field navigation, and land cover analysis. Virtually all of our field staff utilize this imagery on a nearly daily basis to create maps. NAIP's 1-meter resolution provides a clear view of trails, stand breaks, and other features useful to forest planning and stewardship. The optional color infrared fourth band makes it very useful for forest health assessment and for detecting changes to canopy from development. The data is also organized in relation to USGS topographic quadrangle maps and corresponds to the standard USGS topographic map system, where four NAIP images provide coverage to one 7.5-minute topographic map. There are 900 NAIP images for all of Maryland.

The frequency the NAIP imagery provides is highly important to everything from change detection at the state level, to updating an individual landowner's stewardship plan. It enhances the level of service the Maryland Forest Service is able to provide the people of Maryland. A frequency of two to three years has been sufficient for change detection at most scales, but this level would be cost prohibitive if commercial imagery were to replace NAIP. Maryland DNR has access to a 6-inch resolution imagery set that is purchased by the state; however, the frequency of these purchases has been on a nearly 10-year basis—three to four times that of NAIP imagery.

Landsat and the products that can be derived from the Landsat data have been important to understanding land cover and land use change in Maryland and the United States as a whole for decades. Today, however, the Maryland Forest Service staff utilizes Landsat data on an infrequent basis; and more often use a local, high-resolution land cover assessment completed (using NAIP imagery) by a non-profit organization for all of the states in the Chesapeake Bay watershed. This data offers accurate, precise land cover typing at 900 times the resolution of Landsat derived products.

Despite low usage by the Maryland Forest Service, other state agencies, particularly the Department of Planning, use LANDSAT derived products to assist the Maryland Forest Service with its mission, for example by providing analysis and interpretation of future population growth trends. Landsat derived products are used by state-wide planning staff for change detection, classification, and quantification of individual land cover types. A recent assessment utilized Landsat derived National Land Cover Database (NLCD) data to assist with locating tree planting hotspots for a tree planting program on very large, residential properties. Of particular use, is the Landsat derived NLCD "from-to" analysis, and the nearly unparalleled change analysis capability the Landsat program provides, which goes back decades. The NLCD "from-to Change Index" is a valuable, reliable product that allows an organization to quickly examine the many aspects of forest change in a state, between the years 2006 and 2011. The "from-to" analysis not only describes what land cover types forest was converted to, but what land cover types converted to forest, and more. The LANDSAT derived "from-to Change Index" is a one-of-a-kind tool, and the ease of availability is central to state-wide forest planning decisions.

Ohio

In Ohio, the availability of free aerial imagery is very important to our private-lands programs. Here are some highlights of how we use NAIP datasets to assist private woodland owners:

- Use NAIP imagery using GIS tools to prepare for landowner property visits
 - We meet 1-on-1 with around 2,000 landowners per year
- Use NAIP/aerial imagery in GIS to draw forest stand boundaries and create maps for woodland management (forest stewardship) plans
 - Currently have ~320,000 acres of private woodlands in Ohio under management plans that used the datasets
- For our property tax reduction program (reduced taxes for sustainably managed woodlands), we use aerial imagery to estimate eligible forest acreage
 - ~3,600 landowners managing ~130,000 acres of private woodlands sustainably

NAIP and Landsat data is also used by other Ohio Division of Forestry programs, such as fire management and state lands management:

- Use NAIP imagery to develop tactical plans for large wildfires.
 - Changes in fuel types can create opportunities for stopping wildfire spread
 - Identification of structures helps ensure resources are placed to minimize losses
- Use NAIP imagery to better understand land use history of our managed areas
 - Long history and distribution of that creates opportunities to show landscape habitat changes over time and improve forest management
- Use NAIP imagery to identify potential property encroachments
- Landsat data is used to supplement FIA data to develop understanding of the ever-changing forest resource on public and private lands

With our tight state budgets in Ohio, we would likely not be able to purchase the imagery if there was a fee, and this would have a significant, negative impact on our ability to reach landowners, protect against wildfires, and achieve well-managed public and private woodlands and the many benefits they provide both the landowner and the public.

Nebraska

The Nebraska Forest Service uses NAIP and Landsat data for analysis of forest health, forest encroachment, and forest management. Most recently, the data was used to analyze nearly 500,000 acres of ponderosa pine forests that have been devastated by wildfires. This information is also used to complete wildland fire planning in Nebraska through the development of Community Wildfire Protection Plans.

If this information was no longer available or if the cost of completing these plans was to increase, it is reasonable to expect parts of the state would not be included in this critical planning effort. Currently, one-third of the state is covered by these plans.

New Mexico

Currently the New Mexico State Forestry utilizes Landsat imagery for a variety of models directly and indirectly. These models help us monitor and analyze forest health, vegetation, economy potential, and

fire risk. Indirectly, many of our models are based upon other agency reports and reviews that utilize Landsat or USDA imagery. Directly, our staff utilizes Landsat to monitor forest health through:

- The Economic Potential Model, derived from South West Regional GAP’s (SWReGAP) land cover data set based on Landsat data.
- The Green Infrastructure Model, derived from SWReGAP’s Land cover data set based on Landsat data.
- The Water Quality and Supply Model, derived from the Multi Resolution Land Characteristics National Land Cover Database (MRLC NLCD) based on Landsat imagery.
- The Erosion Risk Model, derived from the MRLC NLCD data set based on Landsat imagery.
- The Wildfire Risk Model, derived from the MRLC NLCD data set based on Landsat imagery.
- The Fragmentation Model, derived from SWReGAP’s land cover data set based on Landsat data and the MRLC NLCD data set, also based on Landsat imagery.

If USGS or USDA begins to charge for imagery and data, we are concerned that a consistent data source for many scientific models would be interrupted and ultimately affect the integrity of the research.

There were many valid points in the article from Nature.com, for instance: the benefit from research far outweighs any monetary value that may be raised from charging for this data, and the costs of administrating the pay service would severely cut into the revenue raised by charging for data in the first place. These are publicly funded government agencies, and any data produced and/or procured by them should be made available free of charge to any other publicly funded government entity (schools, government grant funded research, all levels of government agencies, and non-profits).

South Carolina

The South Carolina Forestry Commission uses Landsat data for: (1) its SouthWrap Program, (2) Firewise, (3) SouthFACT and the agency’s BMP monitoring program, (4) the Southern Forest Land Assessment, and (5) the development of South Carolina’s Forest Action Plan’s priority areas.

Georgia

The Georgia Forestry Commission currently has multiple project dependent requirements for Landsat Level 1 imagery products and USDA/AFPO NAIP aerial imagery. Following is a non-exhaustive list of projects and applications for GFC programs which are reliant on continued access to Landsat and NAIP resources.

Product	Program	Use	Alternatives	Importance
Landsat 7, Landsat 8	Water Quality	Identify random forest management activity sites for WQ surveys	Sentinel 2	High
Landsat 7, Landsat 8	Forest Health	Impact assessment for insect/disease and storm damage	Sentinel 2	High

Landsat 7, Landsat 8	Forest Management	Periodic delivery of potential timber harvest site locations to county authorities	Sentinel 2	Moderate
Landsat 7, Landsat 8	Forest Protection	Generate burn severity analysis	Sentinel 2	Moderate
NAIP	Urban Forestry (SCFP)	Develop time series high- resolution urban forest canopy layers	None	High
NAIP	Forest Management	Stewardship/Management Plan map preparation (disconnected)	Cached web imagery	Moderate
NAIP	Multiple	Land cover classification as input for further analysis processes	Sentinel 2 (for lower resolution product)	Moderate/High

Each of these applications has been developed and maintained with the corresponding specific imagery set as an integral part of the process, and with the assumption that these imagery resources would remain freely accessible in the future. The impact of restricting free access to these imagery collections would likely be significant, and may result in one or more of these projects/workflows being discontinued due to funding shortfalls or other procedural difficulties.

Kansas

NAIP imagery is used daily by eight rural district foresters and two riparian foresters employed by the Kansas Forest Service. These foresters primarily use the imagery to identify changes in the condition of a land parcel over multiple years and to prepare the most up-to-date management plans for landowners, which often include Regional Conservation Partnership Program (RCP) work along streams. The infrared band is also used by our foresters to identify stands of eastern red cedar, which can aggressively take over land if not properly managed.

NAIP imagery is critical to the success of managing Kansas' forests over the long-term. We have mapped the rural tree canopy using 2015 NAIP imagery with infrared band – the first time that we have ever been able to look at a statewide map of the treed resource – and are currently using that same data to map the urban tree canopy within incorporated areas. Having access to the imagery is integral in creating statewide management plans. Another project we have been working on is comparing windbreak numbers from 2005 and 2015, which will allow us to better serve Kansans and to better manage our treed resources across the state.

Additional input from the Southern Group of State Foresters

Landsat

- Using random forest statistical techniques, 30-meter Landsat imagery, FIA plot data, and other ancillary layers to develop a 30-meter raster layer, Texas developed a Forest Type layer and individual species layers.

- Landsat imagery is used for conducting analyses for locating possible forest harvest sites in East Texas using SWIR (shortwave infrared) differencing. These analyses can be and are accomplished by SouthFACT (Southern Forest Area Change Tools), which also uses Landsat imagery and thus may well be impacted.
- SouthFACT application is used by SGSF member states (GA, NC, SC, FL, MS).
- Mapping effects of natural disasters to facilitate recovery efforts. For example, burn severity mapping to support rehabilitation efforts after a wildfire.
- Wildland fuels mapping to support fire behavior modeling and impact analysis.
- Wildfire perimeter mapping and hot spot analysis to support planning and operations during a wildfire event.
- Disturbance history and timber age mapping to support fuel calibration efforts.
- Ecological system and vegetation mapping.
- Vegetation greenness, foliar moisture, and drought monitoring.

NAIP

- NAIP imagery is used for making maps for landowners in ArcMap and Maptitude. NAIP imagery are downloaded as hard copies from <https://gdg.sc.egov.usda.gov>. Or, they can also be downloaded from individual states data hub. Example: NAIP imagery, either as county mosaics or as individual digital orthophoto quads (DOQQs) can be downloaded to a local computer from Texas Natural Resource Information System (TNRIS).
- NAIP imagery is also available as web map service and can be used in a variety of mapping applications. Texas, Alabama and other states uses it in their mapping applications and can be accessed as a web map service.
- These web map services allow for viewing NAIP imagery as a basemap in either a desktop mapping application like ArcMap (used by most states) or a web mapping application like Map My Property in Texas Forest Info, or Accomplishment mapping system in Alabama with only a browser and Internet connection
- NAIP imagery is also very high quality. For example, Esri imagery and Bing imagery historically used NAIP imagery in their web map services. However, several months ago, both Esri and Bing switched from NAIP to Digital Globe. Texas noticed that with this change, some areas exhibited cloud cover. This was not the case with NAIP imagery.
- NAIP imagery is available for multiple years since 2003. Providing the multiple years is extremely valuable since it allows a user to show or monitor change in land use over time.
- NAIP data is also used for land use classification.
- NAIP is also used to conduct urban tree canopy analysis using Feature Analyst to produce a canopy layer that is used in the Urban Tree Canopy Analysis application found on Texas Forest Info. GA, TN, NC and MS are also involved in similar canopy analysis using NAIP imagery in their states.
- NAIP imagery is also used in a spatial accomplishment reporting system (TexSARS) as basemaps in the online application. Field personnel report their accomplishments through this app. Also, in Alabama's Accomplishment mapping system NAIP imagery is used as a basemap.
- Wildfire response maps for identifying assets to save, hazards to avoid, fuel types, and potential fire breaks.
- Collecting sample data to validate satellite imagery classification.
- Development of community wildfire protection and ranch wildfire management plans.
- Currently NAIP imagery is the sole imagery used for the Florida Forest Service's Wildfire Suppression Resources Asset Tracking System. Asset Tracking is intended to assist with decision support and asset management and visibility by providing location of equipment (i.e. dozers, engines and tracked carriers) and other assets. NAIP imagery is fairly critical for the offline functionality of [JD Link](#) , John

Deere's telematics system. The absence of NAIP imagery will likely debilitate Florida's current Asset Tracking System, which was designed to ensure mapping firefighting tractors in areas where AT&T cellular coverage isn't available.

- NC, MS, GA and AL all use NAIP imagery for forest health mapping.