



The Pennsylvania Department of Transportation leverages Planet to oversee transportation issues across Pennsylvania.

THE CHALLENGE

PennDOT is responsible for conducting yearly mapping to support the redrawing of road centerlines. This statewide project relies on updated imagery to detect roadwork changes, ranging from drone aerial imagery sources to the National Agriculture Imagery Program. The program's scalability relies on—and is limited by—regularly updated ortho imagery for digitizing road networks. However, the standard update frequency was too infrequent for PennDOT to stay up-to-date with changes to the state and local networks.

Benefits



Fast and reliable updates to road networks with Planet imagery products



High image collection opportunities in a short period of time



Quicker response times to road network changes

THE SOLUTION

Adopting Planet satellite imagery products available from the PlanetScope and SkySat constellations has enabled PennDOT to request up-to-date imagery as needed to provide the most accurate updates on road centerlines.

Planet delivers high-frequency coverage at a reasonable cost. This data supports quicker response times for digitizing road alignment changes such as roundabouts, interchanges and limited-access roadways. Frank DeSendi, planning division manager at PennDOT, points out the value in Planet's SkySat high-resolution imagery product: "Through Planet, we achieved our goals. We collected over 30 scenes across the state for the many new roundabouts constructed and new limited-access highways opened. Staff also identified scenes that captured multiple locations of interest." The ability to have updates provided at the desired frequency and at a 50 cm (~20 in) high resolution is one of the reasons PennDOT was inspired to renew its contract using Planet imagery moving forward.

"Satellite tasking is the logical supplement."

-Frank DeSendi, Planning Division Manager, PennDOT

WORKING WITH WOOLPERT

Woolpert Digital Innovations works closely with PennDOT to provide geospatial services across Pennsylvania. Using an open-end agreement for photogrammetric services, Woolpert Digital Innovations has provided a number of geospatial datasets, including aerial mapping, mobile mapping, and conventional survey. Furthermore, as part of this agreement, Woolpert Digital Innovations has leveraged an existing relationship with Planet to provide PennDOT with satellite imagery at their desired cadence. Using Planet, Woolpert Digital Innovations is providing PennDOT with access to frequently updated imagery that captures important updates in road network changes.

