

PDX Goes Digital and Optimizes Operations With Veoci

Project Goals

PDX needed to enhance the operations that make it one of the premier airports in the U.S. Their network of in-house software and pen and paper system couldn't deliver this need. To keep their premier status, PDX needed a digital, web-based solution for tracking their operations and maintaining safety.

With the previous structure, documents and reports lacked a centralized location. Requiring airfield staff to use multiple platforms and fill out paper forms also hurt their efficiency. The multi-tasking needed due to this set-up, coupled with the fast-paced airfield environment, decreased the quality of reports as well. Digital on-field reporting was a recognized solution to these troubles and became a primary goal in this implementation as a result.

One of the other goals of this project was to establish a safer work environment. Standard communication methods (SMS messaging, email, radio, etc.) caused some messages to go unheard or unacknowledged by airfield staff, sometimes leading to runway incursions. The possibility of runway incursions, as these events are risks to airfield staff safety, needed to be reduced by the project as well.

These goals were achieved through the solutions implemented for the busy airport, which include, but are not limited to:

Runway Incursion Warning System

By integrating their native GIS with Veoci, PDX was able to designate high-traffic runway areas in Veoci's maps. In the tarmac trucks, tablets running the Veoci app refresh their location every 1/15th of a second. When a truck enters the high-traffic area, an alert sounds off, warning the driver of the dangerous

position they're in.

Pavement Sensor System

Veoci helped PDX establish their pavement sensor system. By integrating with FAA approved transponders, pavement conditions feed into a map for overviews of the runway's condition. Each transponder is represented by a pin on the map and colored according to its corresponding pavement's condition. The less time airfield workers spend on the runway, the safer they are.



Wildlife Management

Oregon's forests mean a high number of wildlife incursions at PDX. 20 years of data were transferred into Veoci and integrated with PDX's current wildlife management system. The old records, new records, and new tracking abilities are all in one location, ready to help mitigate future trouble.

The Results

- Increased situational awareness through integrated capabilities
- Increase in quality of work and reporting due to Veoci's mobile capabilities
- Greater communication between leadership and airfield staff
- Comprehensive reporting and documentation of all activities
- 11 total solutions and 8 integrations

