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## Chicago Rockford Airport: From Whiteboards to Cityworks

**P**rotecting and prioritizing assets is crucial to the bottom line of any business, and this need is especially heightened at airports.

"An airport cannot afford to be taken down by an asset impacting operations. Continuity of operations is vital to airports, and having the tools to minimize these disruptions whenever possible enables them to achieve and sustain that objective," said Zach Oakley, operations manager for the Chicago Rockford International Airport (RFD).

Asset management systems help support airports by providing information about the acquisition, maintenance, operation, and rehabilitation of assets. RFD, the second-largest UPS-based operation, saw the benefits of a comprehensive asset management system, and Cityworks was their system of choice. Cityworks, implemented by Woolpert, has improved operations, maintenance, and management, and made jobs more efficient.

**"An airport cannot afford to be taken down by an asset impacting operations..."**

**Zach Oakley, Operations Manager for RFD**

Before Cityworks, RFD handled its asset inventories, work orders, inspections, and reports either in Microsoft Excel or on paper. Work orders were processed through email and written on a whiteboard. Even the airport's twice-daily Part 139 Safety Inspections were recorded on a clipboard and entered into a spreadsheet. Implementing Cityworks has enabled Rockford's work order and maintenance records process to go from paper to electronic form. This has helped streamline RFD processes; specifically the Part 139 Airfield Inspection Reports, which are now reviewable remotely by the FAA.

"FAA safety management systems, such as Part 139s, are key to asset management," said Mark Ricketson, Woolpert program director. "Asset management gives you a running history of



**“Asset management gives you a running history... and what the underlying cause of those issues is.”**

**Mark Ricketson, Program Director, Woolpert**

where you’re experiencing repeat incidents, where issues continue to come up, and what the underlying cause of those issues is.”

Since the implementation, multiple RFD departments have switched to Cityworks and have adapted the system to the airport’s overall workflow. That workflow contains inherent checks and balances. Operations staff can now create a work order, have the issue corrected by maintenance staff, get notification when it’s time for the asset to be re-inspected, and then close the case without a single phone call. Also, everything is tracked and time/date stamped to help with FAA reporting.

“When you create a work order that can be automatically emailed to several different business lines, no one is in the dark on where that asset stands,” Ricketson said.



Part of that improvement in communication comes from dashboards set up for each user, defined by and configured for his or her specific role, and these dashboards display the work orders in **real time**. When a work order is added, maintenance is notified immediately and has a tabular and geographical view of all work submitted. A work order for a runway light outage is automatically sent to the airport electrical crew and shows up on their map in the field. Priority values have also been added to the work orders.



**By using a mobile device to access Cityworks, airfield inspections and logbook entries can be completed in the field.** This eliminates the need for staff to go back into the office to record a work order entry in a physical book or Excel spreadsheet. A flight diversion logbook entry can be entered while standing in front of a plane. This is helpful because it ensures no information is missed, such

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as flight number, number of passengers, where the plane parked, and whether a jet bridge was used.



**Management also benefits from Cityworks by being able to see what is happening at the airport in a single glance.** The management dashboard is customized to show a variety of metrics, from open airfield discrepancies to the distribution of operations logbook entries. This helps managers see trends in data and make well-informed decisions. Management is able to see how many work orders are created in certain areas of the airfield, as well as how much money has been spent on an asset or group of assets, and the asset condition scores over any given timeframe. Ricketson said Cityworks looks at condition assessments and can assign scores from 0 to 100. This allows airports to budget effectively to those scores, based on the priority assets and the condition that they're in.

**“It’s probability of failure versus criticality of failure,” he said.**

The benefits of Cityworks also come in the form of reporting. Management, maintenance, and operations can better track problem areas, such as pavement, and see which are failing more often.




**Reports can also show work orders opened during a shift and unsatisfactory findings. For example, a Part 139 Report was created for RFD in Cityworks to allow users to select a date range and a night or day shift.** This generates a report with the inspection results, work orders opened and closed during a shift, and all outstanding Part 139 work orders. This



**Besides operations and maintenance, there are other areas of RFD that are utilizing Cityworks.** The airport fire department is tracking vehicle and equipment maintenance and inspection records inside Cityworks. Vehicles—such as fire engines, snow removal equipment, and even lawn equipment—are assets to an airport and work orders can be created for them. These can be everything from preventative maintenance work orders, such as an oil change at a repeated interval, to reactive maintenance work orders, as would be seen with a malfunctioning air-conditioning unit. By tracking the vehicle maintenance work and recording daily inspections in Cityworks, it makes it easier for airport staff to make critical decisions about vehicle assets.



**Rockford and Woolpert are currently working on bringing Cityworks inside for all facilities, including the main terminal.** Logbook entries, work orders, and inspections can be created for facilities just as easily as they can be created for the airfield side. A work order can address the repair of a specific piece of HVAC equipment or a moving walkway inside the terminal. This will ensure that all airport maintenance is recorded and tracked inside one system to maximize the efficiencies of Cityworks. 



A look at a Part 139 Airfield Inspection Report.



### RFD - Part 139 Airfield Inspection Report

10/01/2015    Evening Shift

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**AIRFIELD INSPECTION**

<u>Lookbook #</u>	<u>Inspected By</u>	<u>Inspection Date/Time</u>
2174	VIEL, ADAM	10/1/2015 8:13:47PM

**AIRFIELD DISCREPANCIES**  
 Discrepancies are indicated in red and no discrepancies in black. Work Orders handled during this shift are listed below:

<b>Pavement Areas</b> A. Pavement Lip Over 3"    NA B. Hole 5" Diam/3" Deep    NA C. Cracks/Spalling/Bumps    NA D. FOD: Gravel/Cebris/Etc    NA E. Rubber Deposits    NA F. Ponding/Edge Damage    NA	<b>Lighting</b> A. Obscured/Dirty/Faded    Satisfactory B. Damaged/Missing    Satisfactory C. Inoperative <span style="color: red;">Unsatisfactory</span> D. Faulty Aim/Adjustment    Satisfactory <b>Navigation Aids</b> A. Rotating Beacon    Satisfactory	<b>Obstructions</b> A. Obstruction Lights    Satisfactory B. Cranes/Trees    Satisfactory C. Fencing/Gates/Signs    Satisfactory <b>ARFF</b> A. Equipment/Crew Available    Satisfactory B. Communications/Alarms    Satisfactory
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A look at RFD assets in Cityworks.

