

# TankScan Helps Airline Land Savings and Visibility into Inventory

## Chicago-based Airline

One of the major United States airlines headquartered in Chicago, Illinois operates a large domestic and international route network with an extensive presence in the Asia-Pacific region.



**Applications:**  
De-icing

**Market:**  
Aviation

## Challenge

According to the National Weather Service, this past New Year's Day was the coldest on record in Chicago. Despite the conditions, hundreds of flights still took off from O'Hare International Airport. However, before they did, they received a coat of de-icing fluid to remove ice and snow. One of the world's largest airlines that operates out of Chicago was relying on its employees to manually check the inventory levels of its de-icing tanks to ensure they had enough inventory to last throughout the winter months. However, just as ice and snow can build up on a plane, the same is true for the de-icing tanks. This makes it extremely dangerous for workers to climb each tank in order to manually check the product level. Additionally, with flights departing as early as 5 a.m. and as late as 10 p.m., and dozens in between, the airline needed visibility into its inventory over multiple shifts.



## Solution

The airline realized it needed a safer, more efficient solution to accurately monitor its de-icing inventory. The Manager of Winter Operations turned to TankScan to inquire about its wireless monitoring solutions. In 2015, the company purchased and installed 20 **TankScan Ultrasonic (TSU) monitors** on its de-icing tanks.

The TSU monitor is a wireless all-in-one cellular-enabled device that is placed on top of the tank or container to provide level measurements. The device is battery powered so no outlet is required. Using cellular technologies, the TSU Monitoring System can be installed in locations where network infrastructure may not be available. The monitor has a durable wNEMA 4X enclosure, Class I Division 2 rating and long battery life, making this solution ideal for use in a broad range of tank applications.

The monitor collects data regarding the fluid level in the airline's de-icing tanks and sends it to the AquaPhoenix Intelligence Platform (AIP) web-based monitoring application. The AIP sends text message or email alerts to the appropriate airline employees when inventory drops below a pre-determined level, allowing them to avoid a costly run out. The AIP also allows AquaPhoenix to remotely monitor the health of the wireless tank monitors in the field, ensuring that its TankScan monitors are always online and operating at the best possible level.

## Results

Through using the TankScan solution, the Chicago-based airline realizes numerous benefits including:

- TankScan helps eliminate the guesswork of inventory management and has streamlined the airline's supply chain. TankScan also provides the airline with access to trend reports so they can see how much de-icing fluid is being used. In addition, the reports also help predict future fuel needs.
- The airline has gained visibility into its inventory level over multiple shifts. They can quickly check the inventory status on their phones, saving time and money while eliminating downtime.
- TankScan helped the airline improve safety by eliminating the need for airline employees to climb on top of its tanks to get an accurate measurement.

The company is currently looking into installing the TSU monitors on its de-icing tanks at LaGuardia Airport and Boston Logan International Airport.

