

SNOW REMOVAL



When it comes to snow removal at large commercial service airports, life may be a bit easier with a sizeable budget and ample staffing. But, how about snow removal at small hub airports, where careful planning is necessary to maximize both resources and personnel?

Snow crews at small airports also are faced with implementing a revised FAA advisory circular on snow removal that emphasizes clearance times, which just adds to the pressure.

One airport that seems to have it figured out is New York's Syracuse Hancock International. Syracuse has won the Northeast Chapter-AAAAE's prestigious Balchen Post award for outstanding achievement in airport snow and ice control eight times, plus has earned one honorable mention. Award recipients must excel in several snow removal categories, including the snow removal plan, equipment readiness and personnel training, overall safety awareness, the effectiveness of the snow plan, communication with airport



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PHOTOS BY JIM MARTIN

stakeholders and post-storm clean-up.

Syracuse Hancock International is located just north of the city of Syracuse, a place that is the “beneficiary” of lake effect snow from nearby Onondaga Lake and Nor’easter storms, which combine to produce an average local snowfall of 115.6 inches per year. The city itself frequently receives the annual Golden Snowball Award, which is presented by the cities of Albany, Buffalo, Binghamton, Rochester and Syracuse to the Upstate New York city receiving the most snowfall in a season. With statistics like that, it’s amazing that Syracuse International not only can keep up with the snowfall, but also do it well enough to win awards.

At the heart of Syracuse’s snow removal efforts are the maintenance and operation divisions of the department of aviation. They are responsible for snow removal and ice control on the runways and taxiways and more than 100 lane miles of pavement, including landside access routes. Airfield crews must keep in excess of 16 airlines happy to ensure that passengers have clear landing surfaces.

Airfield Maintenance Supervisor John Smorol, who has been at the airport for 23 years, said that the snow removal strategy is to keep one of the airport’s two active

runways open, and to do as much clean-up as possible at night.

“Snow removal is a little bit easier than at large hubs,” said Smorol. “We have two runways, and we try to keep the main runway open at all times. During the day, we do the best we can on both runways without closing, but if the second one gets too much snow, we just close it.”

Since the airport receives more than 100 inches of snow annually, the second runway cannot be neglected for too long as snow accumulations quickly will build up. “We try not to let it stay closed for more than a day or so, so we work on it when we can,” explained Smorol. Airport crews use the evening shifts when flight operations drop off to catch up on areas that were left untouched during the day.

The airport is responsible for the runways and taxiways and primary access roads to the airport. Ramp snow removal is contracted out. Airport operations personnel conduct airfield inspections after snow removal operations, issue NOTAMS as needed, and communicate airfield conditions to the air carriers to ensure safe operations.

“Snow removal at any airport should always focus on the safety issues for passengers, aircraft and on snow removal



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equipment operators,” explained Tim Phillips, a principal with Critical Path, Inc., in Missoula, Mont. Phillips’ company provides snow removal consulting services and was called in to help revise snow removal plans at Denver International after a blizzard in 2006 closed the airport for several days. “In today’s snow removal world, it is all about safety and speed. If you can remove the snow more quickly, you reduce the accumulation of snow, which makes subsequent removal easier and faster. This reduces the associated risks to pilots and snow removal equipment operators,” he said.

While many small hub and general aviation airports are functioning with last decade’s model of snow removal equipment, Syracuse has gone the other way with great results. The airport has two multi-function Fresia F2000 snow removal units.

With a plow blade on the front and a sweeper cartridge in the center of the Fresia, one unit can do the work of two operators. Smorol sets the front plow blade about an inch off the ground, which helps reduce wear and tear on the pavement and the blade, then the broom comes in immediately behind to dust off the pavement.

“We used to have to go with plows first, then brooms,” Smorol said. “Now I only need one guy to do two



functions.”

Phillips agreed that the multi-function unit is the correct approach. “I believe that the use of high-speed, multi-function snow removal equipment has a higher cost-benefit ratio at small airports than at large airports. High-tech snow removal equipment is not just for the large snow belt airports, it makes sense for smaller operators, too.

“The new [FAA] advisory circular on snow removal increases the premium on speed of snow removal,”

Phillips added. “With high-speed, multi-function equipment, you remove two or three times the amount of snow using half the number of snow removal equipment operators in a given time period.”

Syracuse also has seven brooms and five large plows with sanders on the back, four rotary plows (blowers) and two other sweepers/blades. The airport does some deicing with potassium acetate but only if freezing rain is in the forecast. Otherwise, personnel put down



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sand without chemical to help improve traction for landing aircraft.

The airport has not increased the size of its maintenance crew since Smorol started at the airport — back in the 1980s, around the first time Syracuse was winning the Balchen Post award. Smorol attributed his success to retaining good people, conducting annual training, even for the veterans, and strategic staff scheduling.

During snow ops, the airport puts most of its 25 total crewmembers on the day and midnight shift. A skeleton crew on the swing shift is supplemented by day shifters staying over a few hours and midnight workers coming in a few hours early. As part of the annual summer training, Smorol requires his crews to practice snow scenarios to see how they work out solutions. In the winter, during snow evolutions, Smorol personally inspects the airfield

with his crew leaders, and then maps out a removal strategy. However, Smorol was quick to give credit for the airport's success to his crew.

"I've got to say that the guys I have out here are the guys that have been out here for a few years," Smorol said. "If things go good, they take the credit, if things go bad, I take the fall. We recognize them at the end of the year, and the airlines send letters to the (Balchen Post selection) committee."

With eight Balchen Post awards and an honorable mention, it sounds as though the airlines are well satisfied with the snow crew at Syracuse Hancock International Airport. 

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Jeff Price is a professor of aviation management at Metropolitan State College of Denver and owner of Leading Edge Strategies, an airport training and consulting firm.