MKE Snow and Ice Control

Presented by: Airport Operations and Airport Maintenance





RUNWAY SNOW REMOVAL

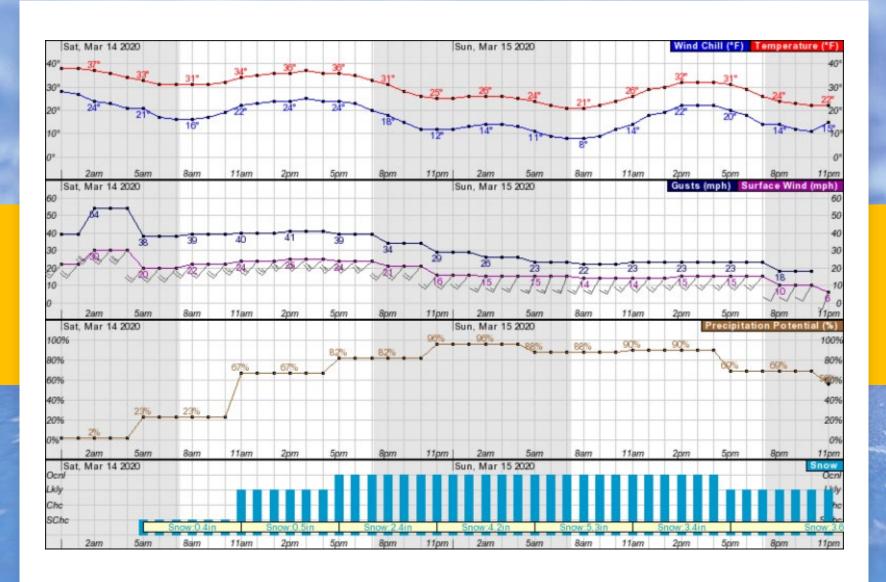
MKE Airport "Snow Flow"

- Winter Operations Kick-Off
- Weather monitoring
- Notifications and staffing
- Coordination
- Preparation
- Plow Plans
- Documentation
- Post-Event and Post-Season

Winter Operations Kick-Off

- PowerPoint presentation for Ops and Maintenance before snow season
 - Last season statistics
 - This season's forecast
 - Safety reminders
 - Plow plans, sector maps, clearing priority map
 - Best business practices
 - Snow storage
 - Deice pads

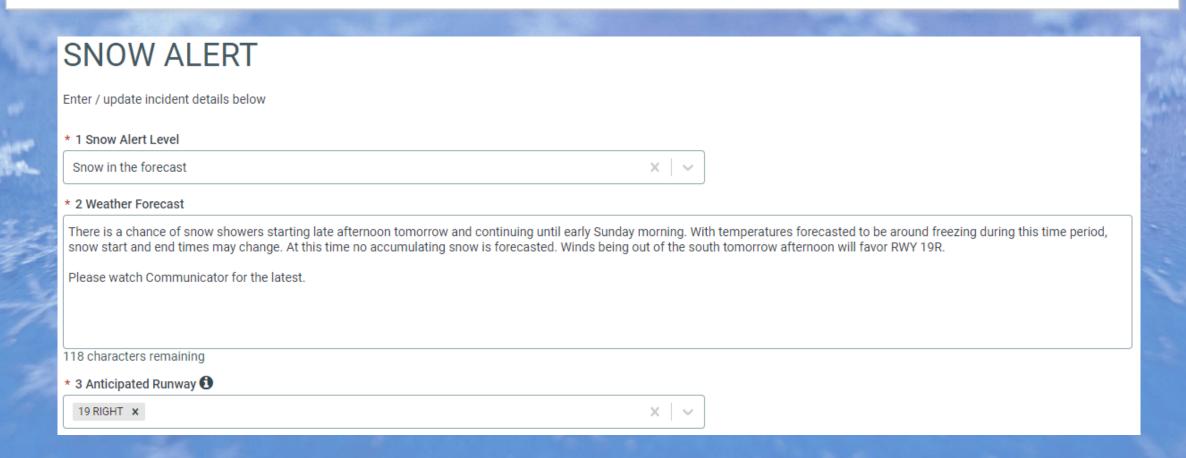




Weather Monitoring

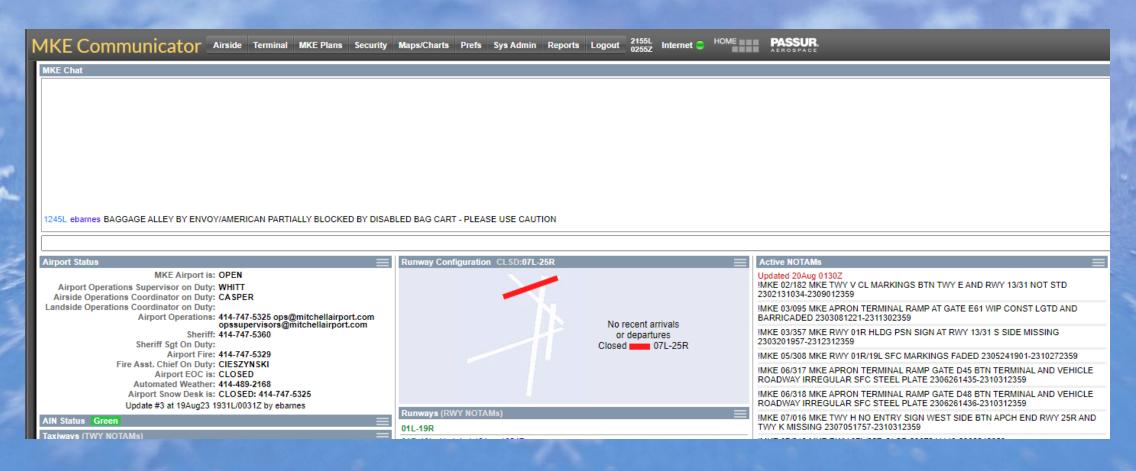
Notifications and Staffing

- Everbridge
- MKE Communicator
- Ops and MX group chat
- Staff schedules
- Cityworks



Coordination

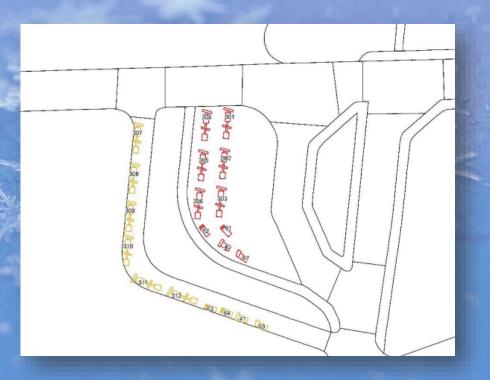
- Ops, Maintenance, and Tower communication
 - MKE Communicator



Airfield Clearing Priorities 278.1 acres

Coordination

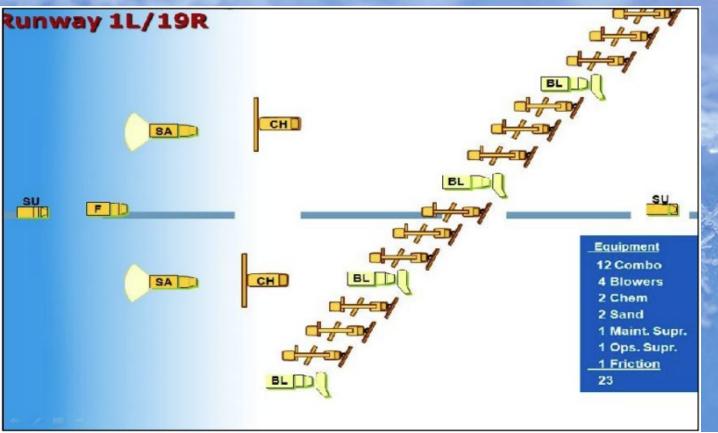
- Airfield clearing priorities
- Preset staging locations for snow removal equipment





Plow Plans

- Plow plan for each runway direction
 - 1L, 19R, 7R, 25L
- Standard and alternate
- Delta variation and cargo variation
- Preset formation for snow removal equipment on runway





Documentation

Cityworks LOGBOOK . WORK ORDER . INBOX REPORTS ✓ Close Request Save New Delete XY **OPERATIONS LOGBOOK ENTRY** AIRCRAFT INVOLVED EVENT **Custom Fields** Description: SNOW RUN Aircraft Info: Category: SNOW RUN DATA Request ld: 212912 Airline/Company: 'N' Number: RWY IN USE Aircraft Make: Flight Number: Category: OPS LOG Priority: UNCLASSIFIED DATE/TIME RWY CLOSED 2023-01-04 08:35 PM Status: Closed Aircraft Model: Origination: PLAN USED 19R DEICING RUN Date: 2023-01-04 08:36 PM VARIATION NONE Initiated By: BERGINZ, PAUL Propulsion Type: Passengers: AIR TEMP 33.1 Submit To: OPERATIONS. Event Info: SURFACE TEMP 33.3 Project Name: Prj. Comp. Date: Event Type: Runway: 1ST LANDING PIREP GOOD Cancel? Date: Reason Location/Gate: AOC2 MC UnSuppressed: Cancel Reason: Canceled By: RWY CC - TD 5 🖵 JetBridge Used: Closed By: BERGINZ, PAUL Date: 1/4/2023 9:00:58 PM RWY CC - MP 5 🖵 Heading: Wind Direction: RWY CC - RO 5 🖵 % Max Power: Wind Speed: Comments: Add Comment Sort ▼ MU - TD 64 🖵 Event Start: 曲 Time: MU - MP 66 🖵 no comments 鯆 Event End: Time: MU - RO 70 🖵 INCIDENT INFORMATION DATE/TIME RWY OPENED 2023-01-04 08:49 PM 曲 **ASSOCIATED WORK** Details: RWY 19R FICON 5/5/5 100 PCT WET 150FT WID DEICED LIQUID EQUIPMENT OUTAGE **Work Orders** Group assets?

Link Eviating MO:

Documentation



MKE SNOW EVENT RECORD January 4th – 5th, 2023 – Snow Event # 8

EVENT PLANNING

Forecast:

Today

A 30 percent chance of rain or drizzle, mainly after 5pm. Cloudy, with a high near 39. Southwest wind around 10 mph.

Tonight

A chance of rain and snow before 8pm, then a chance of snow. Cloudy, with a low around 30. Southwest wind around 10 mph. Chance of precipitation is 40%.

Thursday

A chance of snow before noon, then a chance of rain and snow between noon and 3pm, then a chance of rain after 3pm. Cloudy, with a high near 36. Southwest wind around 10 mph. Chance of precipitation is 50%.

Thursday Night

A 30 percent chance of snow showers before midnight. Mostly cloudy, with a low around 27. Northwest wind around 10 mph.

Everbridge Notification:

Snow Alert Level: Snow in the forecast

Weather Forecast: There is a chance of snow showers starting late afternoon tomorrow and continuing until early Sunday morning. With temperatures forecasted to be around freezing during this time period, snow <u>start</u> and end times may change. At this time no accumulating snow is forecasted. Winds being out of the south tomorrow afternoon will favor RWY 19R.

Please watch Communicator for the latest Anticipated Runway: 19 RIGHT

Alert Level	Snow Level 1
Anticipated Start Time	7 pm on Wednesday the 4 th
Tenant Notification Time	4 Jan 2023 @ 1506 local time
Anticipated Runway	19R, 25L
Anticipated Deice Pad	
Anticipated Mitigation Tactics	
Staffing Levels	Deice Crew
Staffing <u>call</u> out time	Jan 4: MX 3 rd in at 1930L
	Jan 5: 1st until 1930L, 3rd in at 1930L, full crew 2330L
Equipment Status	



MKE SNOW EVENT RECORD January 4th – 5th, 2023 – Snow Event # 8

ACTUAL EVENT

Actual Event Initiation	6:00PM Jan 4 2023
Precipitation Type	Snow showers
Precipitation Totals	.5 inch of new snow
Supplies Used:	
Sand / Sodium Acetate Mix	3 yards
Dry Chemical (Sodium Acetate)	
Liquid Chemical (Potassium Acetate)	6477 gallons
Equipment Status	
Event Termination	8:15am on Friday, January 6th, 2023

NOTES

Drizzle consistent throughout afternoon.

Light snow showers from 6:00 PM to 6:40PM. Pavement temperatures sat around 33.3 degrees.

Deiced RWY 19R and associated routes at 8:35PM. Pavement temps still at 33.3.

On and off snow showers throughout the evening and early morning. Some slickness on non-treated areas, but treated areas yielded good braking action.

NWS added .1-inch accumulation for Jan 5 between 6PM and 11PM. Slight chance with no accumulation in forecast until Jan 6 at 3AM.

There was no snow clean up on previously untreated surfaces. By 1pm all snow was melting, and pavement was drying out.

CRITIQUES

Documentation



MKE SNOW EVENT RECORD

January 4th – 5th, 2023 – Snow Event # 8

SNOW METRICS

MKE - SNOW PLOW RUN Report

1/3/2023 to 1/5/2023

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Date/Time Closed	Plan used	Variation	Temps	1st PIREP	AOC2	RWY CC	MU	Date/Time Opened		nu	
			Air Srfe			TD MP RO	TD MP RO		C	05	

Average Time of Closure (minutes): 14.00

Summary totals for Snow Runs

Totals: 19R: 1	1L: 0	25L: 0	7R: 0
19R DEICING RUN : (1)	1L DEICING RUN: (0)	25L DEICING RUN: (0)	7R DEICING RUN: (0)
19R ALTERNATE : (0)	1L ALTERNATE : (0)	25L ALTERNATE: (0)	7R ALTERNATE: (0)
19R:(0)	1L:(0)	25L: (0)	7R:(0)

Conditions: RWY 19R FICON 5/5/5 100 PCT WET 150FT WID DEICED LIQUID



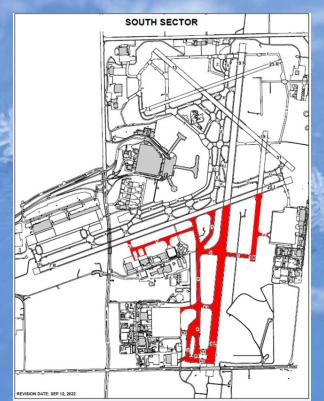
MKE SNOW EVENT RECORD January 4th – 5th, 2023 – Snow Event # 8

COMMUNICATOR CHAT LOG

2023 Jan 04 11:59:46	slanghart	Snow Alert Level 1 issued. Please see the important airport information tab below for more information.
2023 Jan 04 18:27:29	abuczkowski	RWY 01R/19L / RWY 07L/25R / RWY 13/31 CLOSED
2023 Jan 04 18:49:50	abuczkowski	RWY 25L FICON 5/5/5 100 PCT WET
2023 Jan 04 18:50:37	abuczkowski	RWY 19R FICON 5/5/5 100 PCT WET
2023 Jan 04 19:57:43	abuczkowski	DEICE RUN FOR RWY 19R IN APPROX 30 MINUTES
2023 Jan 04 20:01:04	abuczkowski	RWY 7R/25L CLOSED
2023 Jan 04 20:35:52	abuczkowski	RWY 19R CLOSED DUEDEICE RUNE
2023 Jan 04 20:35:53	abuczkowski	RUN
2023 Jan 04 20:49:59	pberginz	RWY 1L/19R OPEN
2023 Jan 04 20:51:58	pberginz	RWY 19R FICON 5/5/5 100 PCT WET 150FT WID DEIGED LIQUID
2023 Jan 04 21:01:18	abuczkowski	RWY 19R / BRAG / B737-8
2023 Jan 05 01:45:57	ebarnes	TWY P CLSD
2023 Jan 05 02:58:53	ebarnes	RWY 19R FICON 5/5/5 100 PCT WET DEICED LIQUID 150FT
2023 Jan 05 05:16:10	ecyprian	RWY 19R FICON 5/5/5 100 PCT WET DEICED LIQUID 150FT WID
2023 Jan 05 08:18:59	ebarnes	RWY 19R FICON 5/5/5 80 PCT WET DEICED LIQUID 150FT WID REMAINDER 1/8IN WET SN
2023 Jan 05 07:07:07	julrich	RWY 19R FICON 5/5/5 20 PCT 1/8IN WET SN AND 80 PCT WET DEICED LIQUID 150FT WID OBS AT 2301051305
2023 Jan 05 07:58:05	jgrava	BRA-G RWY 19R SHORTS 360
2023 Jan 05 08:12:35	julrich	BRA-G CEESNA 650 RWY 19R
2023 Jan 05 08:39:47	julrich	BRA-G CRJ900 RWY 19R
2023 Jan 05 08:50:30	julrich	RWY 25L open FICON 5/5/5 10 PCT 1/8IN WET SN AND 90 PCT WET DEICED LIQUID OBS AT 2301051449
2023 Jan 05 08:59:19	julrich	BRA-G A300 RWY 19R
2023 Jan 05 09:08:50	julrich	RWY 19R FICON 5/5/5 20 PCT 1/8IN WET SN AND 80 PCT WET DEICED LIQUID 150FT WID OBS AT 2301051506

Post-Event

- Clean-up / Sector work
- Wrap up Snow Event Report
- Bi-weekly snow meeting



Post-Season

- Snow Season Wrap Up
 - PowerPoint presentation for Ops and Maintenance
 - Goals achieved
 - Statistics
 - Snow events
 - Critiques
 - Next year goals for improvement
 - Grill out