

Airport Winter Operations

Tenant Meeting

November 19, 2018



Snow Removal Goal

- No worse than wet condition
- Ensure 14 CFR Part 139 compliance
- Maintain a safe and efficient operating environment for pilots and aircraft

Responsibilities Under the SICP

- Airfield Inspections and reporting
- Utilize RCAM to disseminate RCCs
- Issue/cancel NOTAMs as necessary
- Conducts snow removal in coordination with 173 FW CE
- Conducts ice control in absence of 173FW CE
- Monitor CTAF and coordinate with Frost 1 as assigned
- Maintains Airport owned equipment and coordinate repairs

Snow Control Center

- Operated by Airport
 - Usually handled by Airport Operations Manager
 - Airport Operations Manager can delegate this responsibility to an Airport Operations Specialist who will manage these responsibilities from their service vehicle
- Responsible For:
 - Monitoring weather conditions
 - Coordinating snow removal operations with Frosty 1
 - Conducting field inspections
 - Utilizing RCAM to publish RCCs
 - Reporting field conditions using RCCs to ATC, carriers, and tenants
 - Verifying and tracking equipment location
 - Monitoring CTAF during periods ATC is closed and coordinating call offs with Frosty 1 during those periods

Clearing Requirements

- Should have sufficient equipment to clear 1 inch of falling snow weighting up to 25 lb/ft. cubed from Priority 1 areas within the recommended clearance time
- For an airport with 40,000 or more annual airplane operations the clearance time is 1/2 hour
 - Anybody know the number of operations KLMT has annually?

Pavement Statistics

- 109 lane miles of pavement at the Airport
 - That's 25% of the entire city of Klamath Falls
 - That's 15% of the entire Klamath County pavements
- We can't just roll it off the edges as we have wingtips and airfield lighting that need to be considered as well

Airport Operations Hours

- Airport Ops is staff M-F 06:30L to 22:30L
- Not staffed on holidays
- During periods Airport Ops is not staffed conditions are not monitored

Priority 1 Areas

- RWY 14/32
- TWY Charlie and North EOR
- TWY Delta between RWY 7 and TWY Alpha
- TWY Foxtrot between RWY 14/32 and TWY Delta
- TWY Golf
- Air Carrier Apron
- Military Apron
- Cargo Parking
- Emergency Access Points and locks (D1, D2, P4)

Priority 2 Areas

- RWY 7/25
- TWY Echo
- TWY Bravo, B1, B2, B3
- TWY Foxtrot east of RWY 14/32
- TWY Kilo
- RWY 14/32 overruns
- **GA and FBO aprons**

Priority 3 Areas

- TWY Alpha between TWY Delta and RWY 14/32
- **East General Aviation area**
- **West General Aviation area**
- All access roads and perimeter roads
- Aircraft arresting system access

Clearing Snow From Ramps

- Pickup mounted plows will perform a handful of passes along the very west edge of the ramp to allow room for the larger plow trucks to operate safely
- Pickup mounted plows will pull out the area behind the airline offices
- The large plows may only operate on asphalt pavements in the General Aviation areas
 - Concrete areas cannot support the weight of the large plows and must be plowed with pickup mounted plows

Clearing Snow From Ramps

- Airport Ops will perform push backs on all four corners of ramp prior to commencing plowing with the large plow trucks
- Keep berm on main GA ramp between TWY C and TWY E
- Plow berm to non-movement line; CE will always work it across the movement line

Clearing Snow From GA Hangar Areas

- Airport Ops will plow no closer than 4 ft. to a hangar door
- Please coordinate removal of that last 4 ft. with Airport Ops
 - Do not just shovel it to the middle of the taxilane
 - Airport Ops is happy to come pick it up with coordination
 - No coordination will simply just block other pilots in

West Airfield Stockpiling Locations



East Airfield Stockpile Locations



Parking Lot Stockpile Locations



What Helps Airport Operations

- Moving fuel trucks from the ramp parking area
- Moving unused chocks and tiedown chains/ropes from ramp parking areas
- Move electrical cords from areas that are plowed
- Always yield to plow trucks
- Parking in front of hangars is highly discouraged

After Hours Operations

- Air Traffic Control Tower closed from 20:00L to 07:00L
- During snow removal Airport Ops uses PPR NOTAMs to control arrival and departure activity ensuring safe operating environment
- Check AFD and NOTAMs for times Airport conditions not monitored
- PPR NOTAM will close a surface unless a request is received prior to the time stated in the NOTAM
 - Airport Ops usually uses 2 hour PPR's meaning a call would need to be placed 2 hours prior to anticipated departure

Difficulties for Airport Operations

- It is extremely difficult for Airport Ops to punch a hole in a berm to allow one aircraft to exit
 - This can add up to 4 hours to snow removal efforts depending on severity of weather event
- Remember if the runway/taxiways are not open it won't matter if the ramp is open or not
- Just like your car minimal use of brakes is optimal when flying in winter weather
 - Slamming the brakes on to make a shorter exit and reporting a NIL braking action provides misleading information to other pilots

Runway Closed Immediately When:

- A NIL PIREP or vehicle braking action assessment.
- When previous PIREPs have indicated good or fair (Medium) action and two consecutive poor PIREPS are received continuous monitoring must begin
- Runway Assessment must occur before the next operation.
- If airport is in their “continuous monitoring” mode a runway assessment must occur as soon as traffic volume allows.

Conducting Runway Assessments

- Conducted when:
 - Central portion of runway is contaminated 500 feet or more
 - After snow removal operations or the application of deicing fluid
 - Immediately after an aircraft incident or accident
 - When requested by the air carrier or tenant

Assessment Criteria		Downgrade Assessment Criteria		
Runway Condition Description	Code	Mu (μ) ¹	Vehicle Deceleration or Directional Control Observation	Pilot Reported Braking Action
<ul style="list-style-type: none"> Dry 	6	40 or Higher	---	---
<ul style="list-style-type: none"> Frost Wet (Includes Damp and 1/8 inch depth or less of water) <p>1/8 inch (3mm) depth or less of:</p> <ul style="list-style-type: none"> Slush Dry Snow Wet Snow 	5		Braking deceleration is normal for the wheel braking effort applied AND directional control is normal.	Good
<p>5° F (-15°C) and Colder outside air temperature:</p> <ul style="list-style-type: none"> Compacted Snow 	4	39	Braking deceleration OR directional control is between Good and Medium.	Good to Medium
<ul style="list-style-type: none"> Slippery When Wet (wet runway) Dry Snow or Wet Snow (Any depth) over Compacted Snow <p>Greater than 1/8 inch (3mm) depth of:</p> <ul style="list-style-type: none"> Dry Snow Wet Snow <p>Warmer than 5° F (-15°C) outside air temperature:</p> <ul style="list-style-type: none"> Compacted Snow 	3	10 to 30	Braking deceleration is noticeably reduced for the wheel braking effort applied OR directional control is noticeably reduced.	Medium
<p>Greater than 1/8 (3mm) inch depth of:</p> <ul style="list-style-type: none"> Water Slush 	2	29 to 21	Braking deceleration OR directional control is between Medium and Poor.	Medium to Poor
<ul style="list-style-type: none"> Ice² 	1		Braking deceleration is significantly reduced for the wheel braking effort applied OR directional control is significantly reduced.	Poor
<ul style="list-style-type: none"> Wet Ice² Slush over Ice Water over Compacted Snow² Dry Snow or Wet Snow over Ice² 	0	20 or Lower	Braking deceleration is minimal to non-existent for the wheel braking effort applied OR directional control is uncertain.	Nil

Issuing NOTAMs

- Inoperative or damaged signs
- Snow covered signs and lights
- Inoperative and broken lights
- Hold lines and obscured markings
- Snow piles or berms on the AOA

Runway De-Icer

- No sand is used at LMT due to ANG requirements for FOD
- ANG provides trailer and fluid for use of airport
 - Trailer is stored on the old Forest Service Tanker Base ramp during the season
- E-36 Potassium Acetate (liquid) manufactured by Cryotech is used on movement areas
 - \$7.50 a gallon
 - 1 application to RWY 14/32, TWY G, TWY C, and TWY Echo totals about 400 gallons
- Airport provides Cryotech NAAC (solid) for use on Commercial Ramp and terminal sidewalks
 - While more expensive we have to provide a chemical that meets our SWPP requirements as well and it is easier to provide a product that is compliant on both the airside and landside to ease confusion of tenants who may apply the product

Use of Sidewalk De-Icer

- Generic sidewalk salt and de-icers are not allowed for use on the Airport due to storm water requirements
- Airport can supply specialized airfield pavement de-icers upon request
- Airport will spray public parking lot areas and areas of concerns (predominately shady areas) with de-icer and de-ice public sidewalks.
- If there is any doubt call Airport Operations and we would be happy to assist

Questions?

- I would be happy to answer any questions or provide any further clarification

AIRPORT OPERATIONS 24/7 DUTY PHONE

541-891-2620