

Airport Winter Operations

24th Annual Airports Conference



Presented to: 24th Annual Airports Conference

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Federal Aviation
Administration



Airport Winter Operations

AGL Winter Ops Oversight



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Runway Incursions & Avoiding Accidents

- Maintain a strong command & control
- Maintain situational awareness
- Communication / Read-back
- Training



Runway Incursions & Avoiding Accidents



How does your airport deal with low visibility and white out conditions?

Runway Incursions & Avoiding Accidents



How does your airport deal with driver fatigue?

Snow Removal Best Practices

- Close runways during snow removal activities.
- Continuous surveillance – Be Alert!
- Monitor appropriate ATC frequencies.

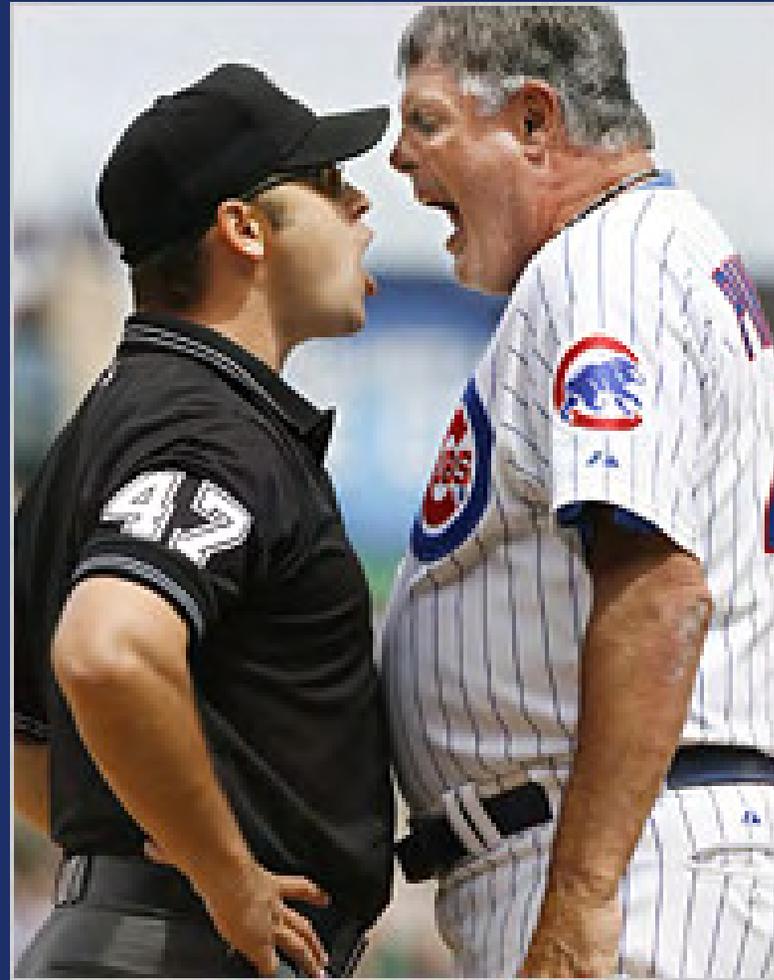
- Full length and width removal.
- Do not open runways where snow removal is incomplete.

Responsibility / Supervision & Decision Making



Who at your airport is authorized to make decisions regarding snow removal operations?

Airport operator's have the sole responsibility in deciding when a runway is to be opened or closed.



Clear & Concise Communications

CERTALERT

ADVISORY CAUTIONARY NON-DIRECTIVE

AIRPORT SAFETY AND OPERATIONS DIVISION AAS-300
FOR INFORMATION, CONTACT MARC TONNAKLIFF, AAS-300, (202) 267-8732

DATE:	09/24/08	No. 08-11
TO:	Airport Operators, FAA Airport Certification Safety Inspectors	
TOPIC:	NTSB Recommendations for Clear and Concise Airport Communications	

PURPOSE: The purpose of this CERT ALERT is to draw attention to and emphasize the importance of clear and decisive radio communications between airport operators and pilots when conveying runway conditions directly to flight crews operating aircraft during winter weather conditions.

BACKGROUND: On April 12, 2007, Pinnacle Airlines Flight #4712 experienced an excursion off the departure end of Runway 28 after landing at Cherry Capital Airport in Traverse City, Michigan during winter weather conditions. While the National Transportation Safety Board's (NTSB) investigation revealed the flight crew's failure to conduct a landing distance assessment as the probable cause of the accident, the airport operator's conveyance of runway conditions lacked specific and decisive phraseology to the flight crew regarding the latest surface conditions on the runway just minutes prior to landing. For more information regarding this accident, the final report is available by visiting <http://www.nts.gov/Publictn/2008/AAR0802.pdf>.

The airplane was being operated under the provisions of 14 *Code of Federal Regulations* (CFR) Part 121. The aircraft had departed from Minneapolis-St. Paul International Airport (MSP), Minneapolis, Minnesota, about 2153 central daylight time (CDT) in route to Cherry Capital Airport (TVC), Traverse City, Michigan. Snow removal operations were in progress and instrument meteorological conditions prevailed at the time of the accident. The Air Traffic Control Tower (ATCT) was closed at the time of the event and the airport was actively communicating with Minneapolis Center and directly with the flight crew on the TVC CTAF frequency.



SNOW REMOVAL – G O A L



No worse than wet condition

SNOW & ICE CONTROL PLANS

- Sufficient detail to ensure 139 compliance.
- Review plan annually / post event review.



ATCT Coordination

- Close ATC coordination is essential!



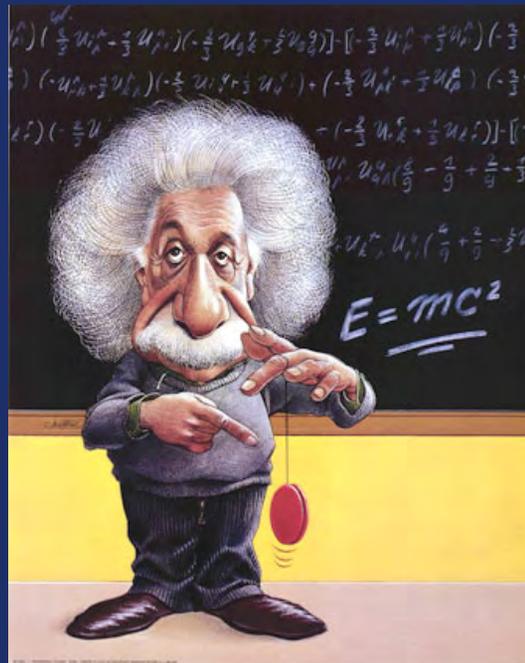
•SNOW & ICE CONTROL PLANS



- Does your plan contain triggers to close runways to air carrier operations when conditions are reported as “Nil” by either vehicles or PIREPs?
- Does your plan identify minimum MU levels that close a runway to air carrier ops?

14 CFR Part 139.303 Personnel

Provide sufficient and qualified personnel to comply with the requirements of the Airport Certification Manual and the requirements of this part.



14 CFR Part 139.303 Personnel

Equip personnel with sufficient resources needed for compliance



14 CFR Part 139.303 Personnel

Train all personnel who access movement areas and safety areas and perform duties in compliance with the requirements of the Airport Certification Manual and the requirements of this part.



14 CFR 139.327 – Airport Self-Inspection

- **Are your Operations or Maintenance personnel following up behind all snow removal equipment before opening the runway to air carrier operations?**
- **How are you documenting your airfield conditions and inspection reports?**

Airfield Clearing Priorities for Snow Plans



Priority #1 = ARFF Access / Egress

14 CFR 139.339 – Airport Condition Reporting



14 CFR 139.339 – Airport Condition Reporting

OPSnet Washington Dulles International Airport

Local NOTAMS/Field Condition Reports are one of the detailed information and decision support modules on PASSUR OPSnet

All users communicate and dialogue online through "instant chat" on every page/module of PASSUR OPSnet

Runways	Status	Condition
04L-22R	Open	PLOWED AND BROOMED FULL LENGTH AND WIDTH. SURFACE BARE.
04R-22L	Open	PLOWED AND BROOMED FULL LENGTH AND WIDTH. SURFACE BARE.
09-27	Open	PLOWED AND BROOMED FULL LENGTH AND WIDTH. SURFACE BARE. SAAB READINGS RWY 27: TD: 45 RP: 44 R0: 31 APO: 40

Central Illinois Regional Airport - Microsoft Internet Explorer provided by Office of Airports

Central Illinois Regional Airport
BMI RUNWAY/AIRPORT CONDITIONS

AirTran Southwest American UNITED American Connection

Expedite Dissemination of Airport Conditions to Air Carriers

FAA Approved Snow/Ice Contractions

Braking Action Fair	BRAF
Braking Action Nil	BRAN
Braking Action Poor	BRAP
Closed	CLSD
Runway Friction Value	MU
Friction Measuring Out of Service	MU OTS
Frozen	FRZN
Ice on Runway(s)	IR
Inches	IN
Loose Snow on Runway(s)	LSR



14 CFR 139.339 – Airport Condition Reporting

- Identify type of snow
 - VERY IMPORTANT!
- Identify depth of snow



14 CFR 139.339 – Airport Condition Reporting

- **Ensure times are accurately reported and documented.**



- **Complete runway assessment in one continuous pass (if possible).**
- **Update – Any Change of conditions.**

14 CFR 139.327 – Airport Self-Inspection



IMMEDIATELY Following an incident or accident on the runway.

Post Accident Priorities

- Preservation of life.
- Preservation of evidence / avoid contamination.
- NTSB 49 CFR, Part 830 – Aircraft Incident/ Accident Guidelines.
- AC 150/5200-12B – Fire Dept. Responsibility in Protecting Evidence at the Scene of an Aircraft Accident.



Post Accident Priorities

- Incidents / Accidents require a documented inspection.
 - Runway friction testing/ Pavement condition, signs, markings, lighting, etc.
- NOTAM Issuance – Closures / Restrictions.
- Protection of open operational areas – R.I. prevention.
- ACM / AEP compliance.
- ARFF Index Review / Evaluation.
- **DOCUMENTATION !!!**

Post Accident Priorities

- Aircraft removal only after FAA or NTSB approval.
- Conduct inspection prior to opening to ensure 139 compliance.
- Lessons learned / Implement changes.



FAA Approved Materials - Chemicals

➤ Chemicals must conform to either generic SAE or MIL-SPEC.



FAA Approved Materials - Sand

- Sand should be controlled carefully to reduce engine erosion.
- Heated sand and or a wetting agent may be necessary to bond sand to pavement.
- Do you meet the FAA Sand Spec?

NOTAMs / Post Event - Clean-up

Inoperative or damaged signs.

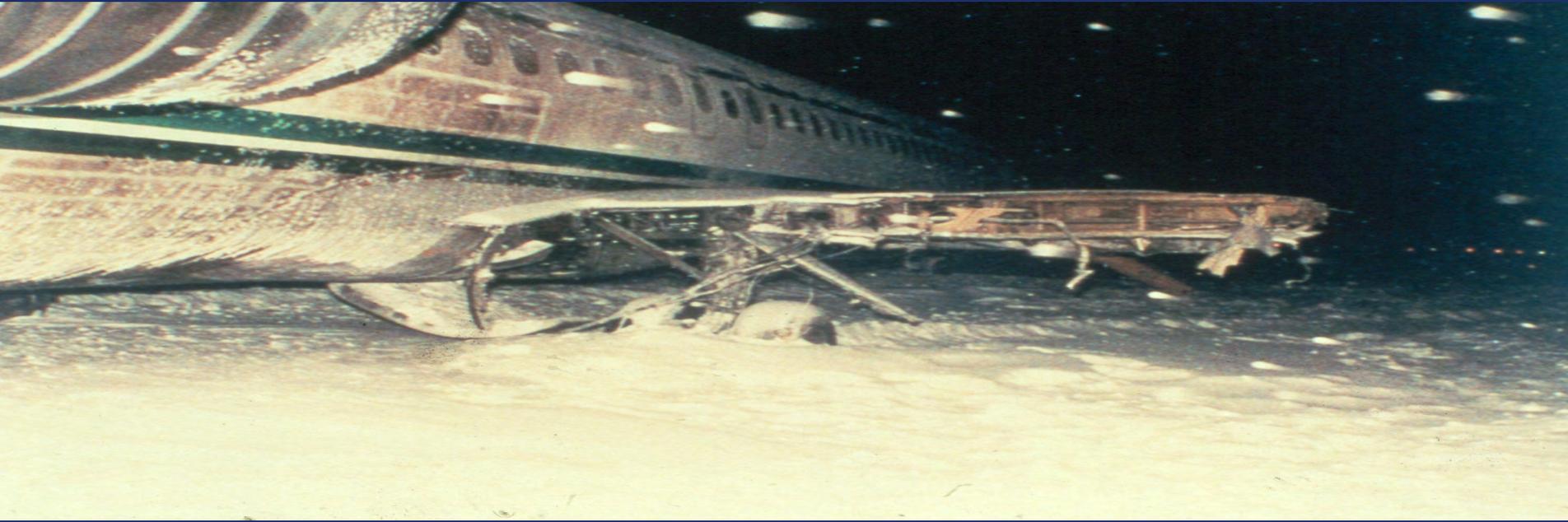
Snow covered signs and lights.

Inoperative and broken lights.

Hold lines and obscured markings.



139.343 – Non-complying conditions



When uncorrected unsafe conditions exist on airport, certificate holder must limit air carrier operations to those portions of the airport not rendered unsafe by those conditions.

Other FAA Guidance on Snow Removal

AIRPORT CERTIFICATION INFORMATION BULLETIN



DATE: 09/28/2007, NUMBER: 07-11
Airport Winter Safety and Operations
AC 150/5200-30B



FAA Advisory Circular 150/5200-30B "Airport Winter Safety and Operations" has been revised. This AC provides guidance to assist airport operators in developing a snow and ice control plan, conducting and reporting runway friction surveys, and establishing snow removal and control procedures.

Principal changes to the AC include:

- Revised guidance and recommendations for the Airport Snow and Ice Control Committee.
- Introduction of the snow control center.
- New guidance on the components to be included in a snow and ice control plan.
- Recommendations for snow removal and control procedures.
- Greater emphasis on issuing timely Notices to Airmen (NOTAMS).

As your airport prepares for a successful snow and ice control season, please focus on these key areas:

1. Ensure your snow and ice control plan is current and submit all necessary changes for your plan to your assigned Airport Certification Safety Inspector (ACSI) prior to implementation.
2. Give strong consideration to including triggers in the snow plan to close air carrier movement areas to air carrier aircraft when braking action/friction values reach an equivalent level of nil based on the air carrier aircraft utilizing the airport. The pavement should remain closed until the airport has properly inspected the surface in question and treated if necessary.

AIRPORT CERTIFICATION INFORMATION BULLETIN



DATE: 01/18/08, NUMBER: 08-05
DVD – Winter Operations, "A Pilot's Perspective"

Northwest Airlines has recently produced a training DVD titled Winter Operations, "A Pilot's Perspective". This short media presentation uses motivating video footage and provides informative insight on winter weather from a pilot's perspective. Great emphasis is appropriately placed on the importance of receiving accurate and timely airport condition reports for flight planning and critical safety-of-flight decision making.



This DVD is an exceptional training tool for airport operators involved in snow removal operations. Northwest Airlines has authorized the copy and distribution of this DVD; therefore, please feel free to reproduce as necessary. Our office recommends this media be incorporated into your winter operations training at your airport.

FAA Great Lakes Region – Airport Certification Staff www.faa.gov/airports_airtraffic/airports/regional_guidance/great_lakes/



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Great Lakes Region

