



RACCA

Regional Air Cargo
Carriers Association

THOUGHTS ON ICING

from a pilot's perspective


Presented by John Hazlet



Some presenters like to introduce themselves by impressing their victims with a long boring spiel listing their qualifications and experience.



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Pilot for 49 years 23,000 hours flying big and small airplanes Airline
Transport Pilot Flight Engineer Flight Instructor Ground Instructor Aircraft
Dispatcher ATP-CFI-Multiengine-Commercial-Instrument-Private Examiner
for 35+years no accidents or violations Captain Part 121 & 135 ops
Training Captain Check Captain maintenance test pilot Director of
Operations for four companies VP Flight VP Maintenance VP Safety &
Standards founding VP Regional Air Cargo Carriers Association member
of several FAA Aviation Rulemaking Committees member of TSA Aviation
Security Advisory Committee Chief Instructor at Pasadena City College
FAA-approved/college credit aviation degree program for 24 years several
FAA commendations and awards blah blah

LIKES TO FLY

**For more details
(if you're really interested)
ask at the coffee break**



Wide spectrum of aircraft capabilities

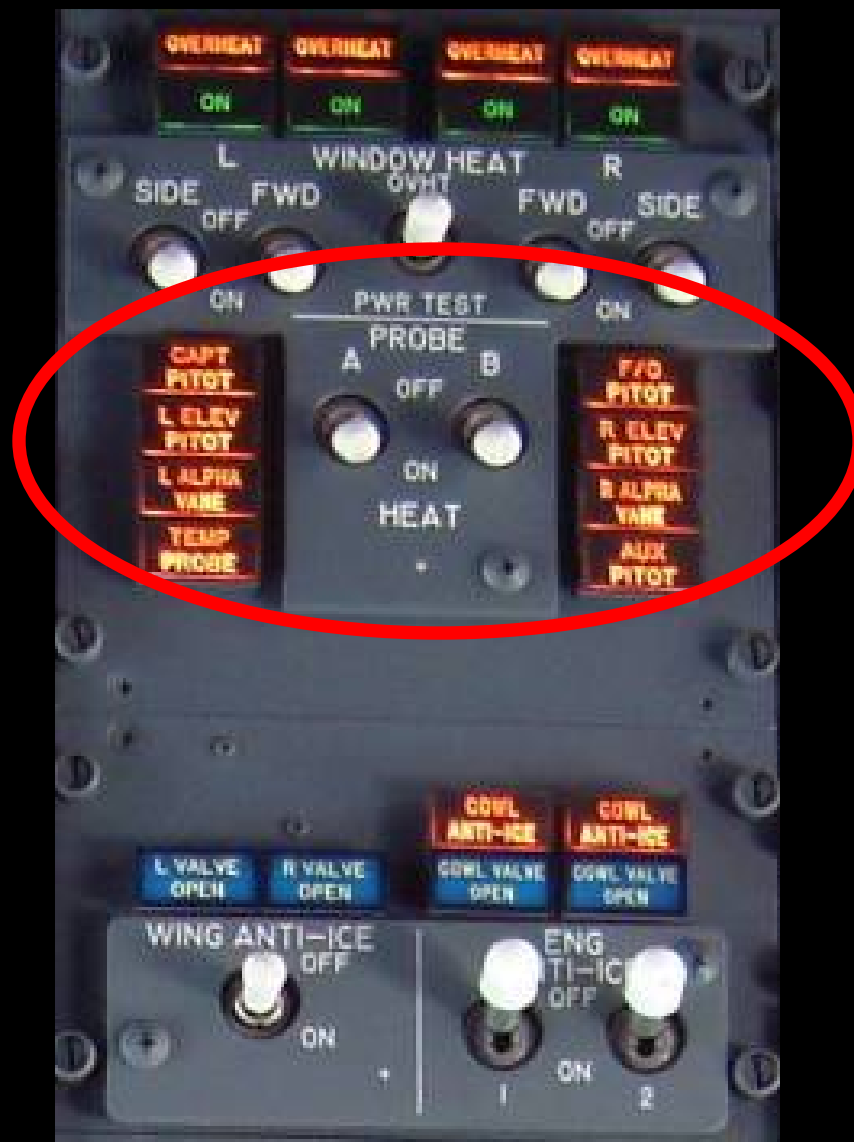
Wide spectrum of aircraft capabilities



Wide spectrum of aircraft capabilities



Wide spectrum of aircraft capabilities



Wide spectrum of aircraft capabilities



Wide spectrum of aircraft capabilities





**. . . plus a huge power to
weight ratio that allows climb
out of the ice at 2500+ FPM . . .**



**. . . plus thousands of hours
of cockpit experience – with
the gumption to refuse
clearances that won't work in
icing weather. . . .**

Wide spectrum of aircraft capabilities



PITOT
HEAT



OFF



Another Big Problem:

PILOT TRAINING

specific to flight/ground icing

We won't solve it today. . . .



CHALLENGE

- **How to provide adequate inflight icing data to everyone within this spectrum**
 - For preflight planning
 - For inflight updates
- **Assistance for GA pilots in trouble**



CONCENTRATE ON NOAA JAVA TOOLS

- **Personal fetish**
 - **Very useful**
 - **Very flexible**
- **Under-used**
- **Misunderstood**



ADDS JAVA TOOLS

Flight Path Java Tool Application

- **Extremely useful product but. . . .**
 - **Needs more direct access to icing charts**
 - **Quicker launch**
 - **Possible inflight access via ADS-B In?**

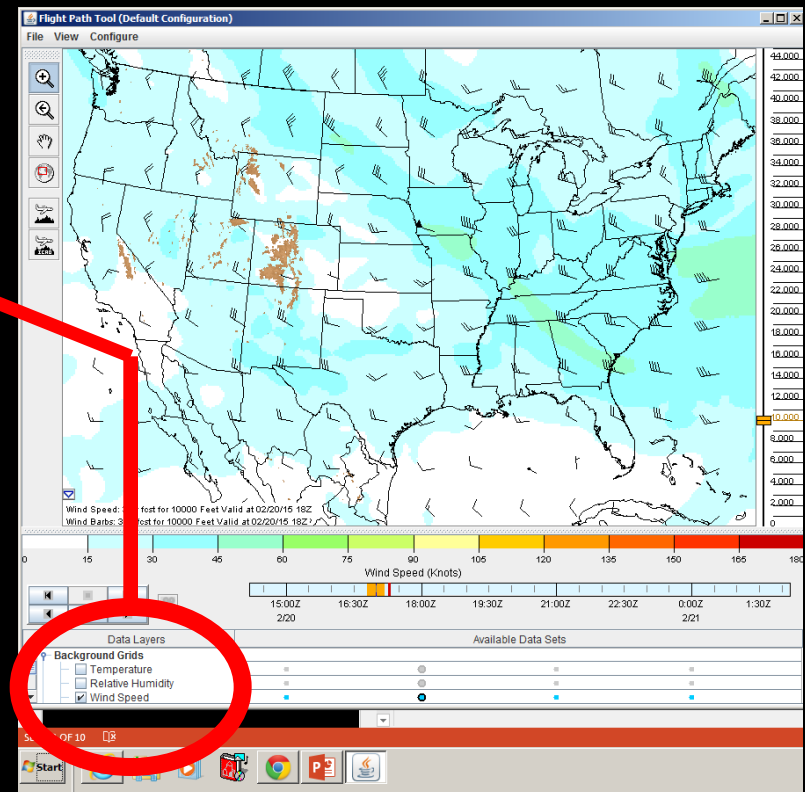
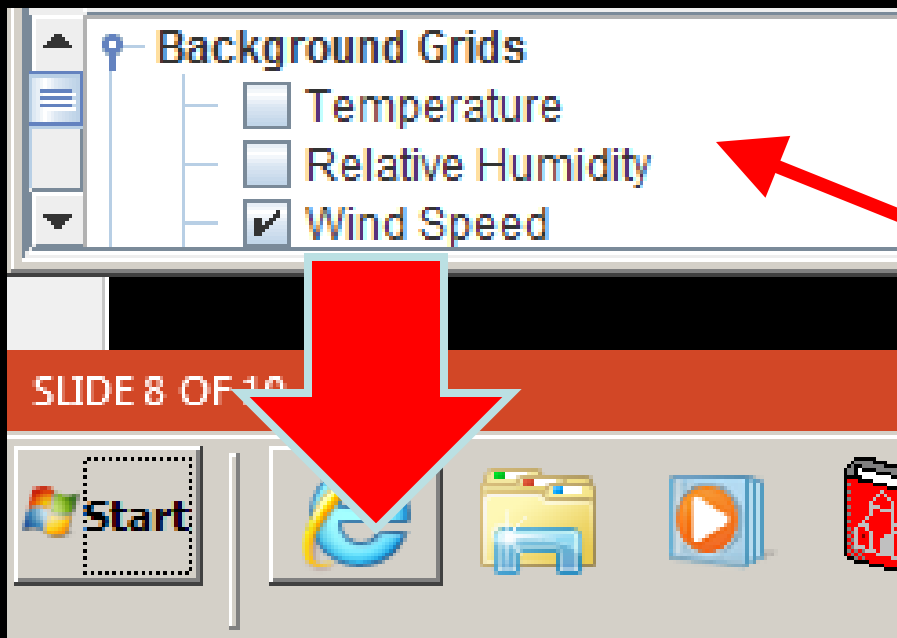
ADDS JAVA TOOLS

Flight Path Java Tool Application

- **Better explanation (tutorial?) on how to use icing charts**
 - **Altitude slider**
 - **Time slider**
 - **Zoom in on specific area**

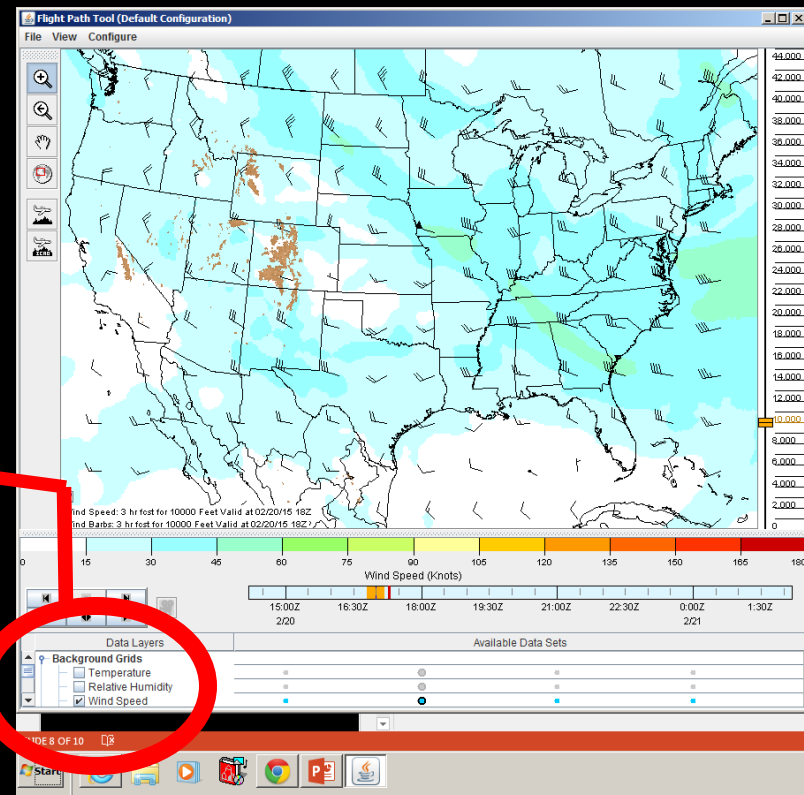
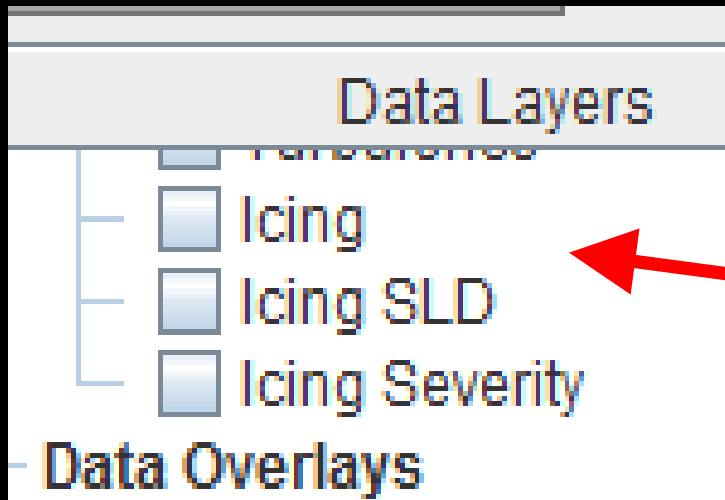
JAVA ICING CHARTS

- Icing chart option is masked from view when program opens



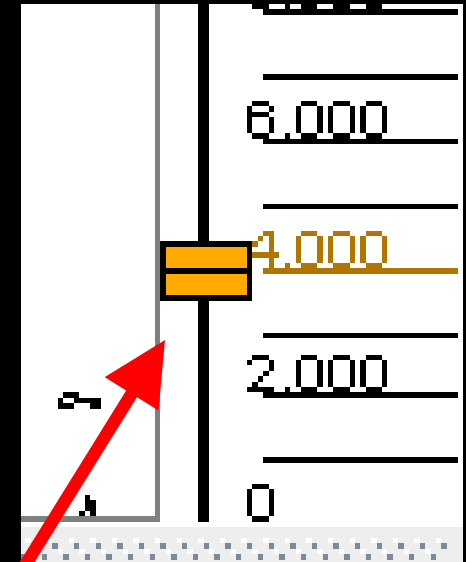
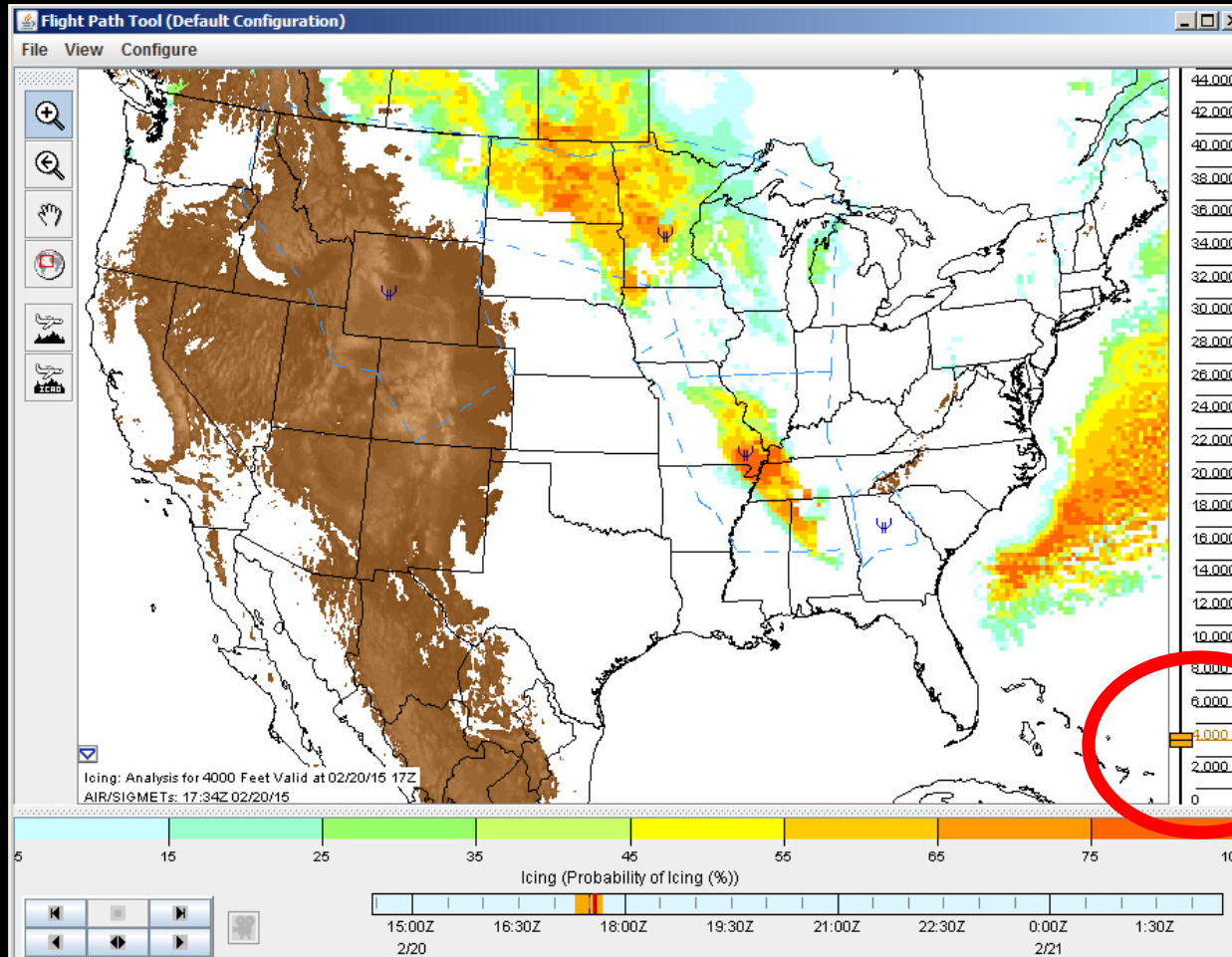
JAVA ICING CHARTS

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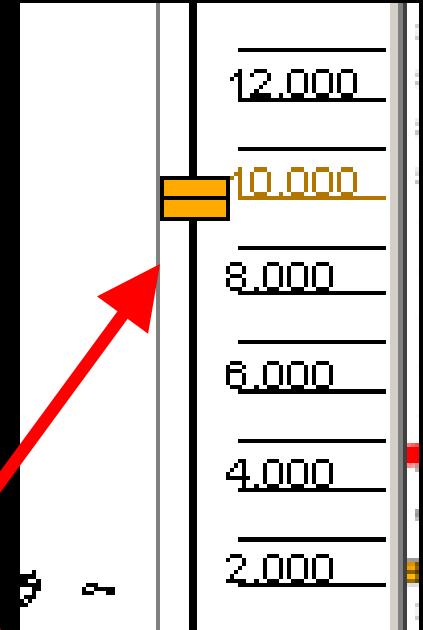
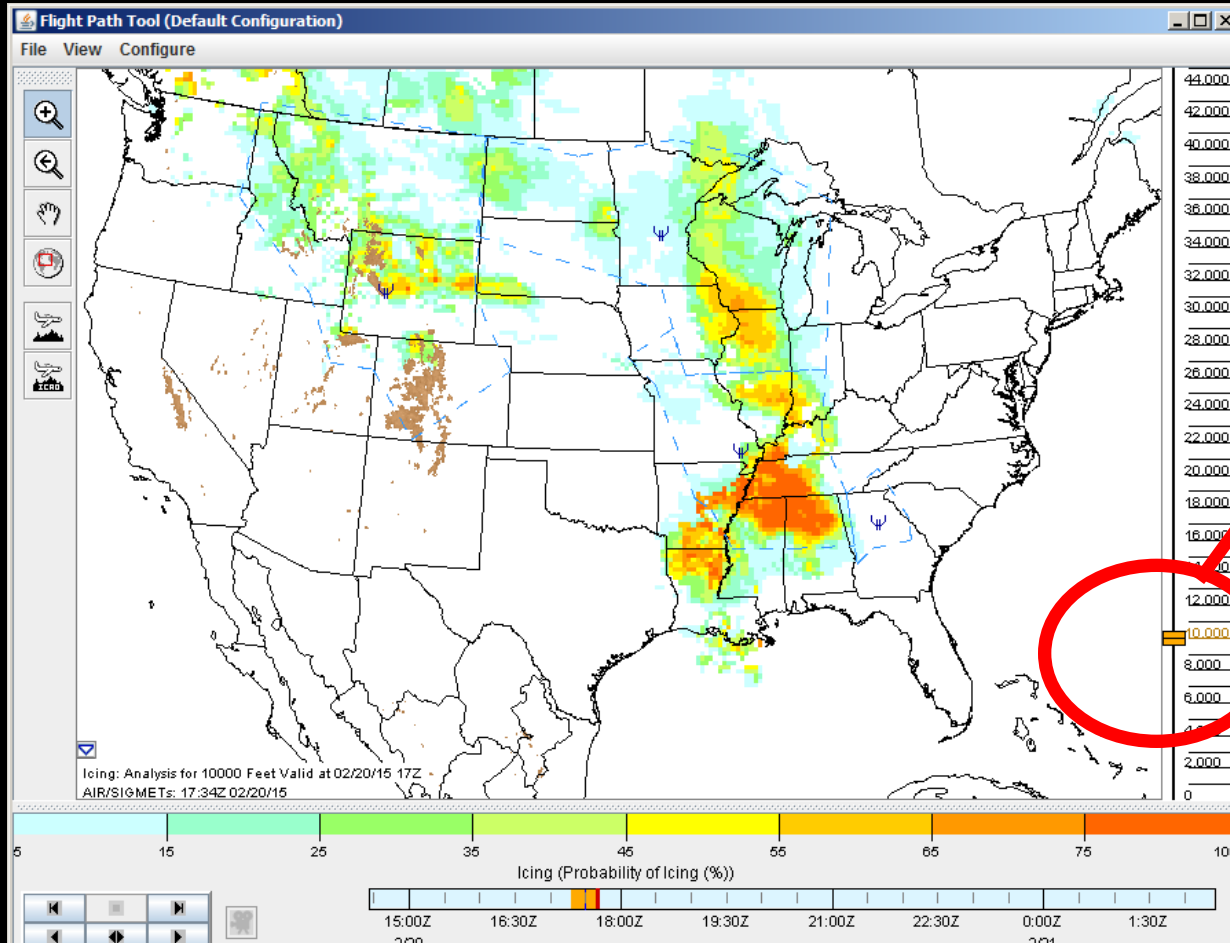
JAVA ICING CHARTS

Altitude Slider



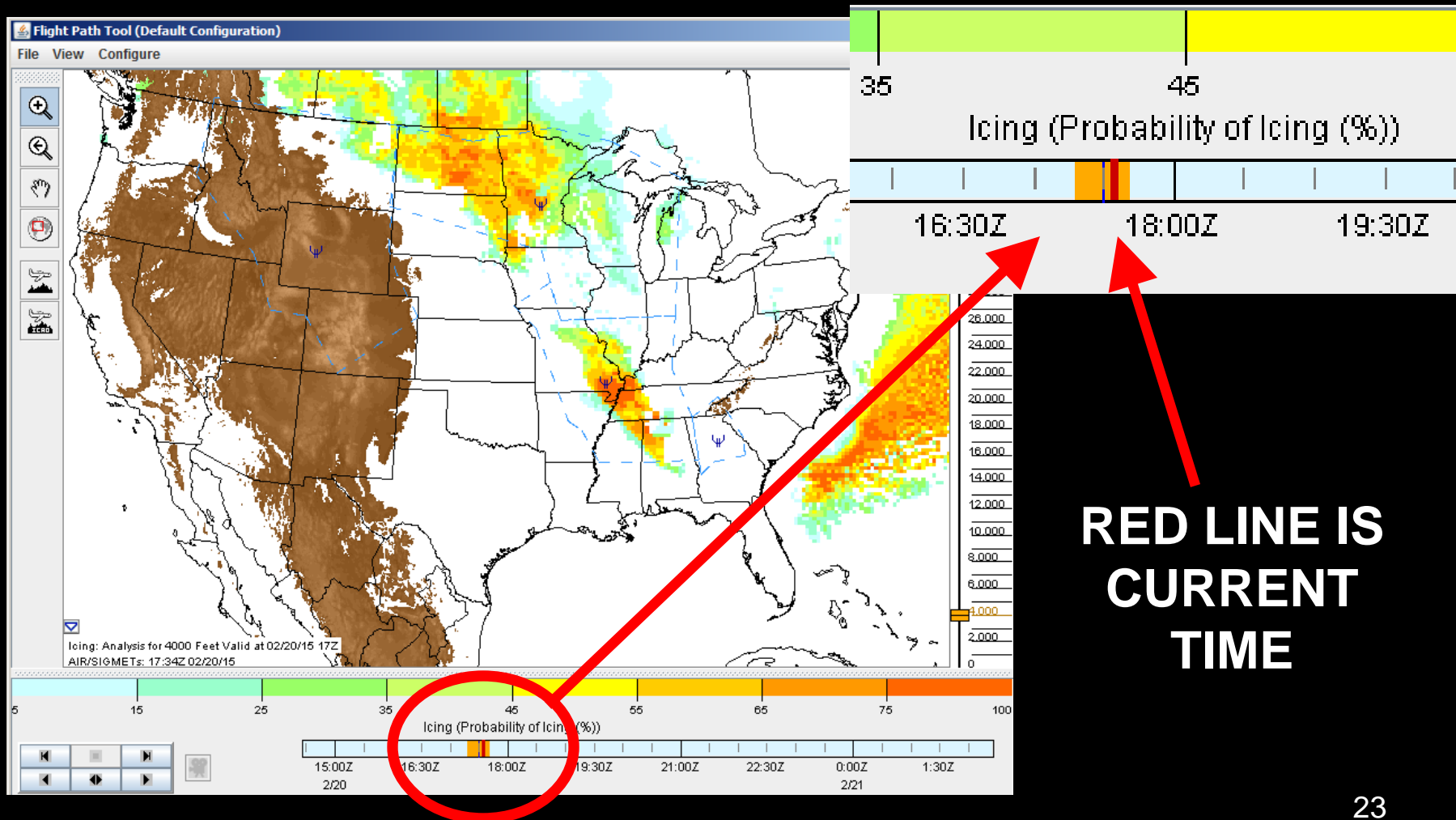
JAVA ICING CHARTS

Altitude Slider



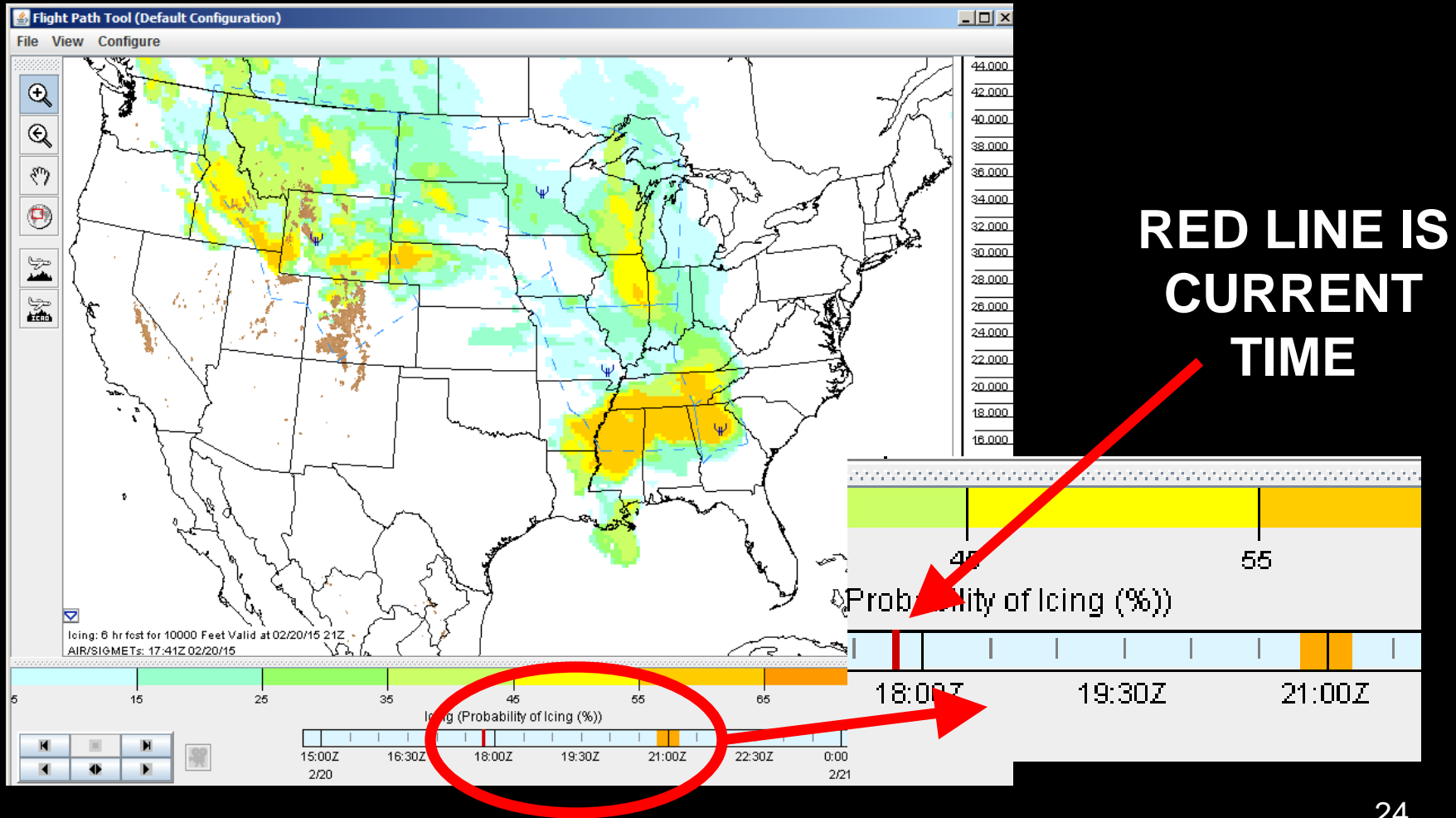
JAVA ICING CHARTS

Time Slider



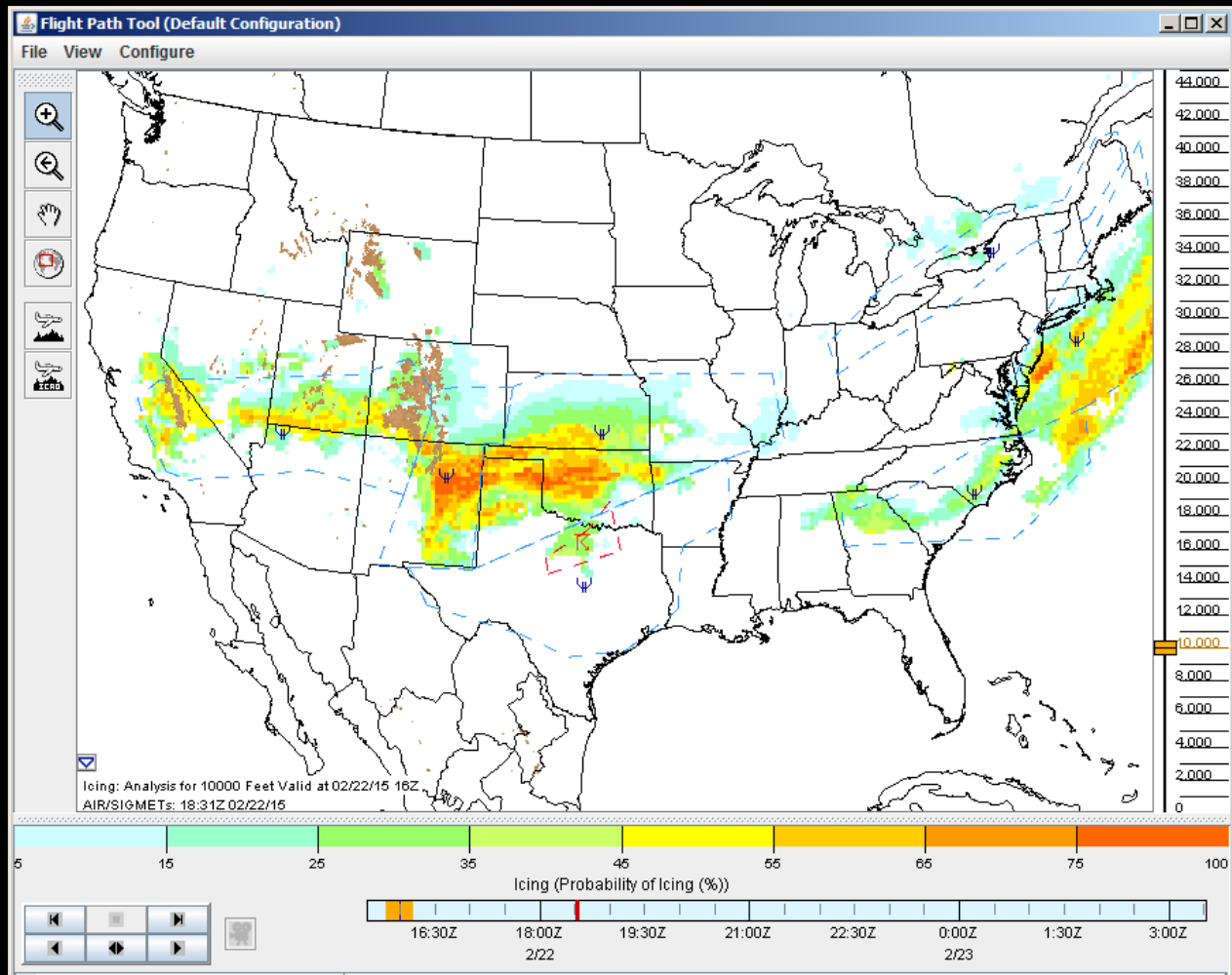
JAVA ICING CHARTS

Time Slider



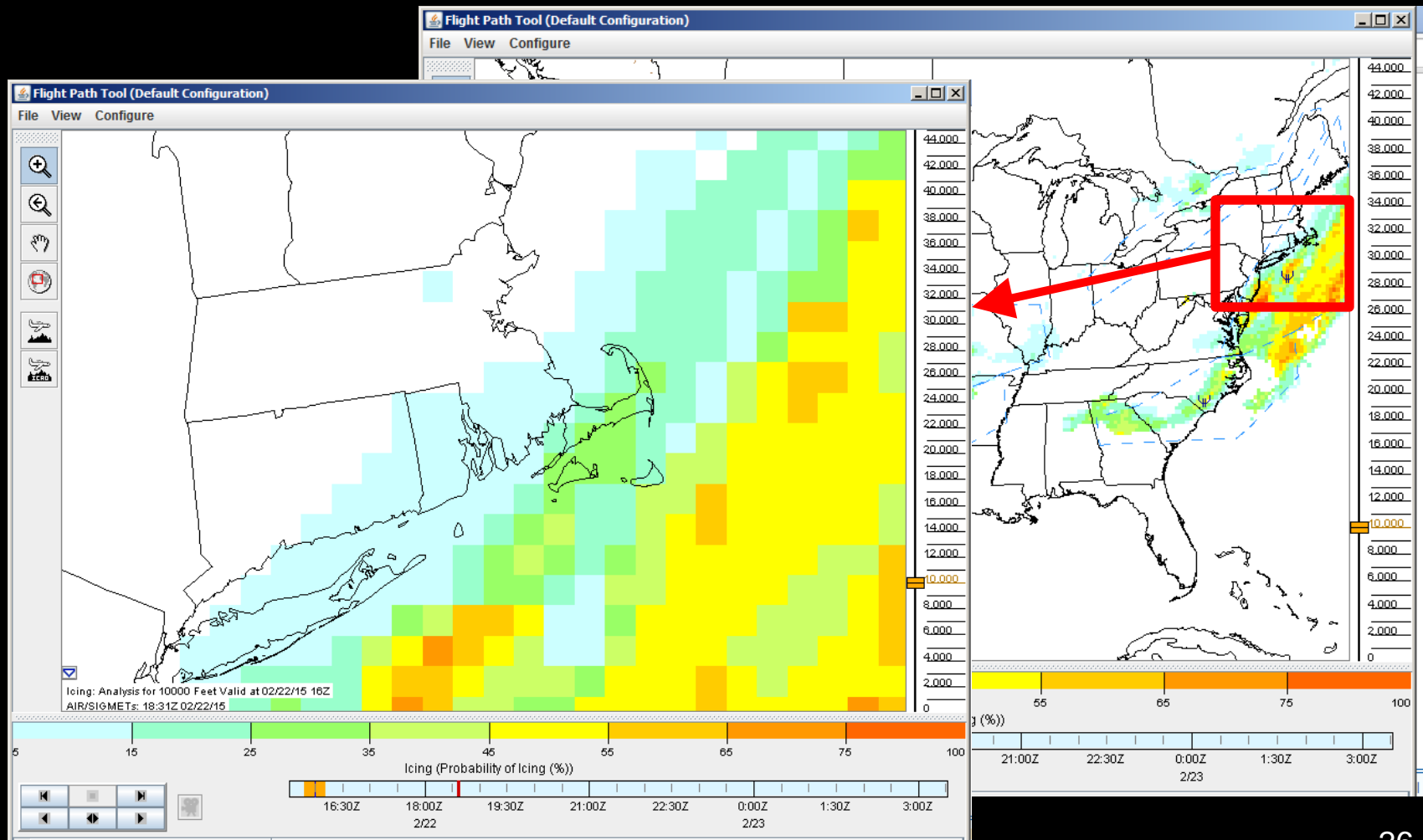
JAVA ICING CHARTS

Zoom-in Capability



JAVA ICING CHARTS

Zoom-in Capability






REAL TIME INFLIGHT REPORTS OF ICING CONDITIONS

- **Via ADS-B IN, XM Satellite, etc.?**
 - **Display of Center Wx Reports**
 - **Icing info via XM Satellite?**
 - **Java Flight Plan charts?**
- **Icing PIREPS available to ARTCC?**



HOW ABOUT GROUND ICING?

- **Outside the purview of this meeting?**
 - **Ground deicing**
 - **Ground anti-icing**
 - **Light plane pilots**
 - **Heated hangar fallacy**
 - **Holdover times**
- **Wanna talk about it?**



**HOW TO HELP THE
LIGHTPLANE PILOT WHO HAS
PICKED UP AN ELABORATE
DECORATION OF ICE
. . . and is whining to ATC for
help**

**QUESTIONS?
COMMENTS?
DISCUSSION?**



That's all Folks!