

# Internet Weather Resources for Pilots

Syracuse Safety Standown

February 7, 2015

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# But first a bit of trivia

- KSAV 050533Z 0506/0606 00000KT P6SM BKN250
- FM051000 00000KT 6SM MIFG BKN250
- FM051400 14006KT P6SM SCT025 BKN250
  
- What does MIFG mean?
- Answers:
  - Shallow fog - mince is French for thin
  
- BR - Mist - brume
- FU - Smoke – fumée
- GR - Hail - grêle
- PR – Dust - poussière

# Starting out

- Everyone has their favorite general purpose web site
  - TWC, Intellicast, NWS
- Try this: <http://forecast.weather.gov>
- Enter your zip code, and then bookmark the resultant page
- At the bottom of the page, find the forecast discussion, which provides the forecasters seven day discussion, including aviation forecast

# NWS/AWC Products

## [aviationweather.gov](http://aviationweather.gov)



**AVIATION WEATHER CENTER**  
NOAA NATIONAL WEATHER SERVICE



- METARS
- TAFS
- PIREPS
- G-AIRMETS
- SIGMETS

# TAFs

The screenshot shows a web browser window with the URL `aviationweather.gov/taf/data?ids=KSYR+KBGM+KAVP&format=raw&metars=on`. The page header includes the NOAA logo and the text "AVIATION WEATHER CENTER" and "NOAA NATIONAL WEATHER SERVICE". A navigation menu contains links for "HOME", "ADVISORIES", "FORECASTS", "OBSERVATIONS", "TOOLS", "NEWS", "SEARCH", "ABOUT", and "USER". Below this is a blue banner with "ADDS TAF Data" and an "INFO" link. There are four buttons: "TAF Home", "Plot", "Data", and "Board". The main content area shows the following information:

IDs:  Format:  Raw  Decoded  Include METARs

**Data at: 0101 UTC 04 Feb 2015**

KSYR 040054Z 19003KT 10SM SCT085 BKN220 M12/M16 A3019 RMK AO2 SLP228 SCT V BKN T11171156

KSYR 032335Z 0400/0424 21005KT P6SM BKN250  
FM040300 24005KT P6SM OVC050  
FM040600 16005KT 2SM -SN BR OVC020  
TEMPO 0408/0412 3/4SM -SN BR OVC008  
FM041300 24007KT P6SM -SHSN OVC025  
FM042000 22007KT 2SM -SN BR OVC015

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KBGM 040053Z 21005KT 10SM CLR M09/M16 A3012 RMK AO2 SLP235 T10891161

KBGM 032335Z 0400/0424 22004KT P6SM SCT250  
FM040300 24005KT P6SM OVC050  
FM040800 16005KT 2SM -SN BR OVC010  
TEMPO 0409/0413 3/4SM -SN BR OVC005  
FM041400 24007KT P6SM -SHSN OVC015  
FM042300 22007KT 2SM -SN BR OVC010

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KAVP 040054Z AUTO 00000KT 10SM CLR M07/M15 A3021 RMK AO2 SLP245 T10721150

KAVP 032335Z 0400/0424 22005KT P6SM SCT250  
FM040400 22004KT P6SM OVC050  
FM040900 22004KT 4SM -SHSN OVC030  
TEMPO 0409/0412 2SM -SHSN OVC015  
FM041300 23005KT P6SM OVC030

You can bookmark a page like this so you can have quick access to your favorite TAFs

# NWS/AWC Products

- There are several new very useful graphical products
  - Icing
  - Convective Activity
  - Route Planning
  - Graphical PIREPS

# NWS/AWC Products - ICING

## ADDS Icing

INFO

### Current Icing Sigmet



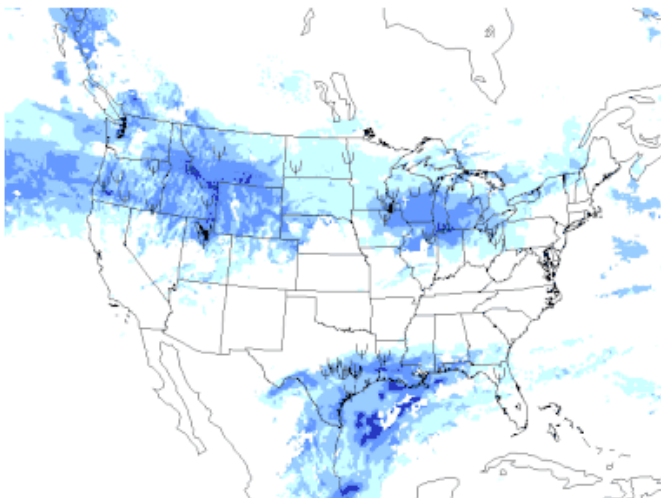
Click on image to access plots

### Current Icing Aircraft Reports



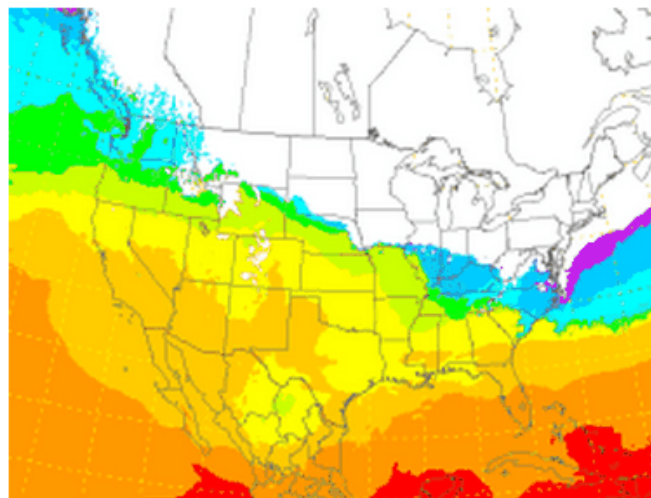
Click on region name to access plots

### Forecast Icing



Click on image to access plots

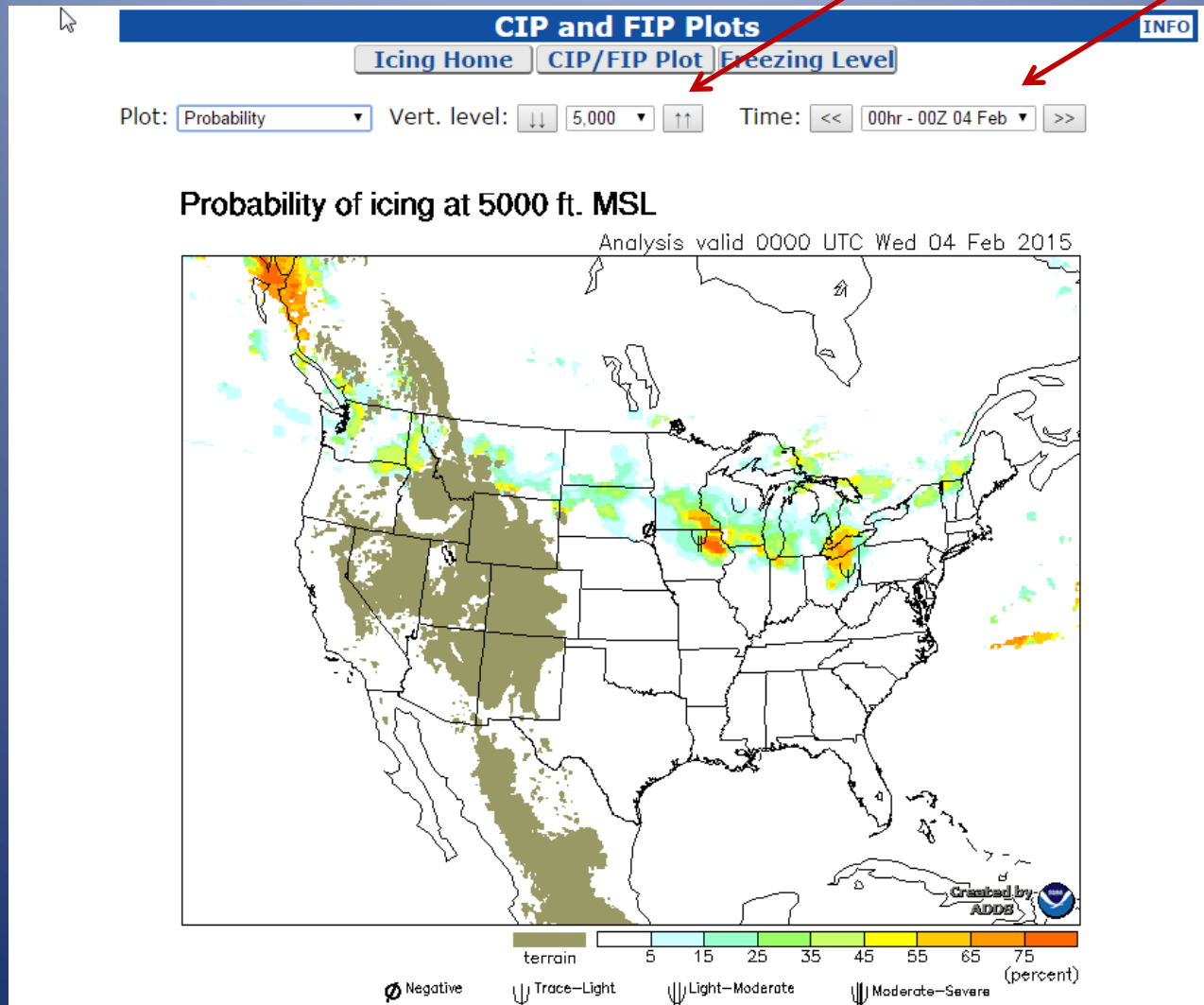
### Freezing Level



Click on image to access plots

# NWS/AWC Products - ICING

Icing forecasts can be interactively obtained for various altitudes and time periods

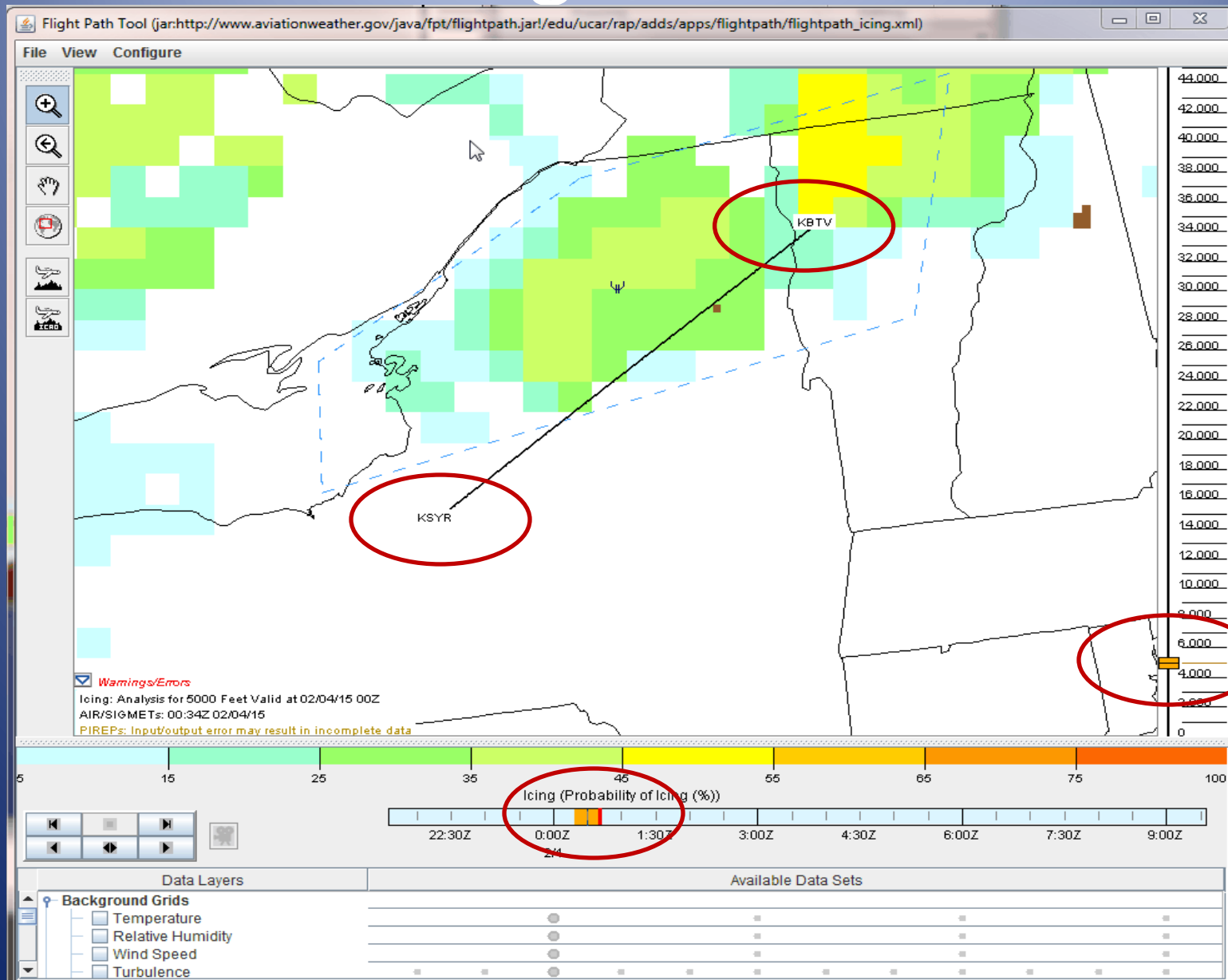




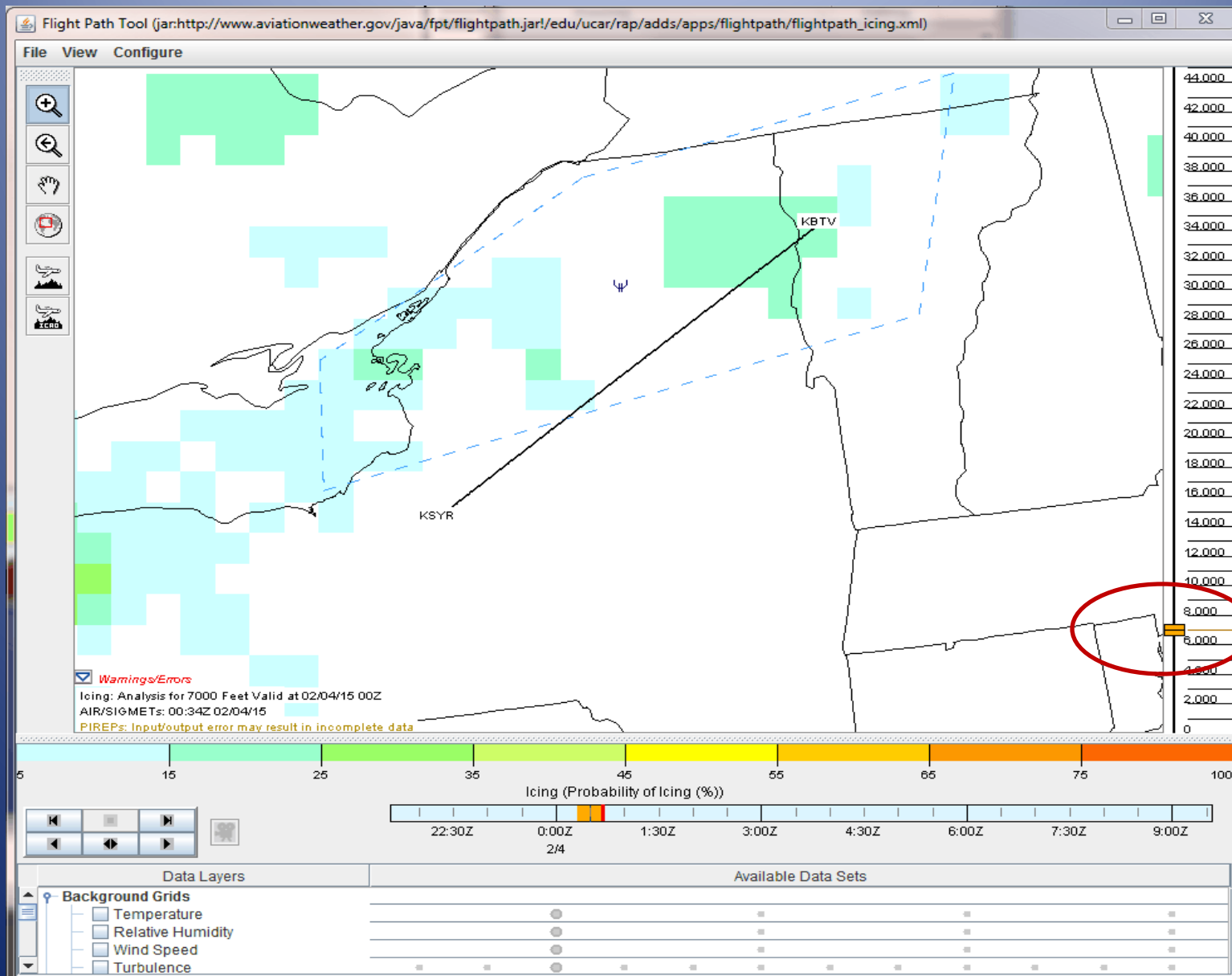
# AWC Flight Path Tool

- The Flight Path Tool can overlay multiple fields of interest: icing (probability, severity, and super-cooled large drops), turbulence potential, convective diagnosis and forecast, ceiling, visibility, flight category, winds, relative humidity, temperature, radar (base and composite reflectivity), satellite observations (visible, infra-red, and water vapor wavelengths), AIRMETs and SIGMETs, METARs, TAFs, and PIREPs.
- All 3D data can be sliced horizontally at selected flight levels or vertically along a flight path. All data can be animated in time.
- The tool lets you zoom in to any location on the globe. It automatically switches to the most appropriate projection for the viewed area. High-resolution basemaps show selectively more detail as you zoom in.
- Found under the TOOLS menu on the AWC HOME page.

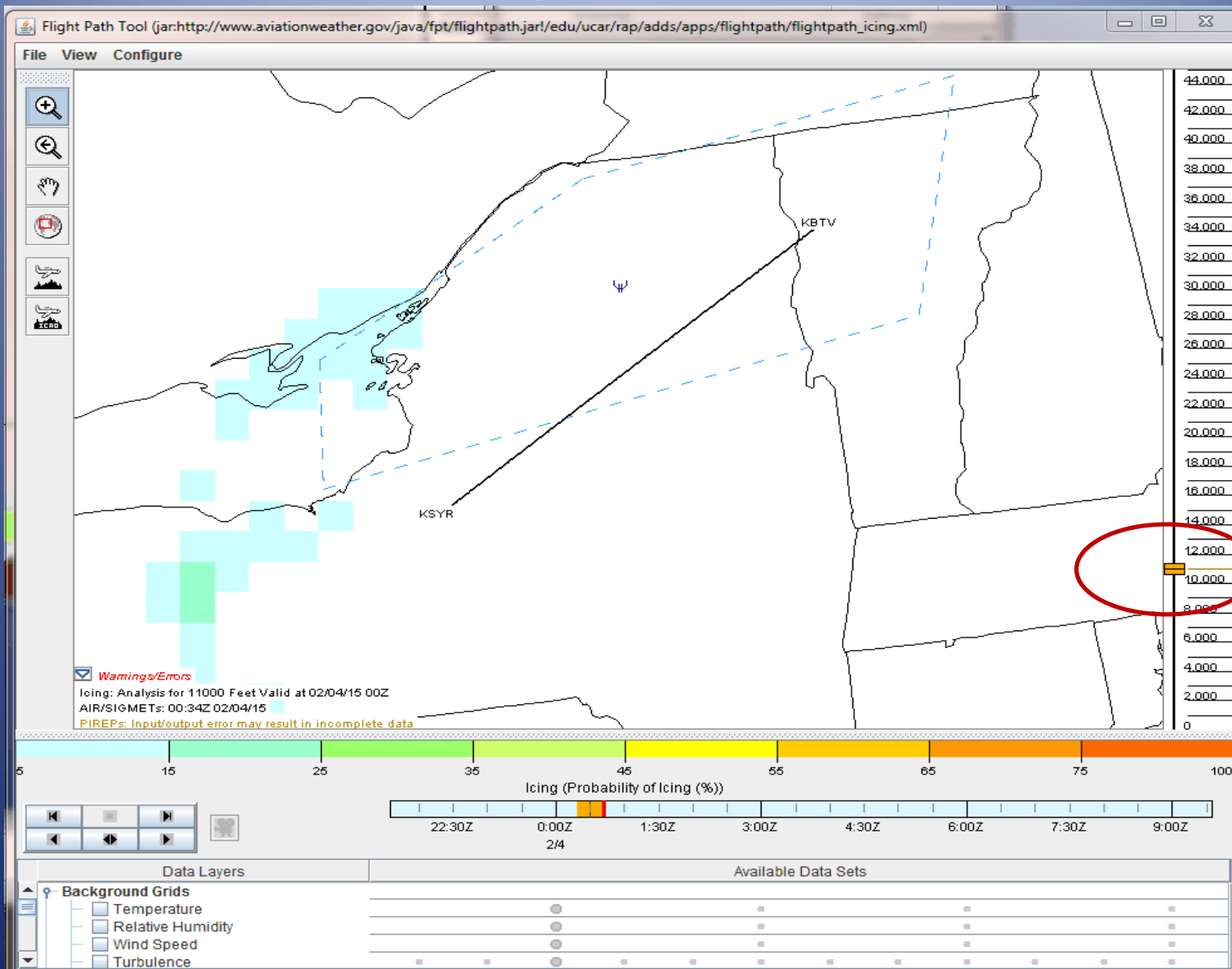
# AWC Flight Path Tool



# AWC Flight Path Tool



# AWC Flight Path Tool

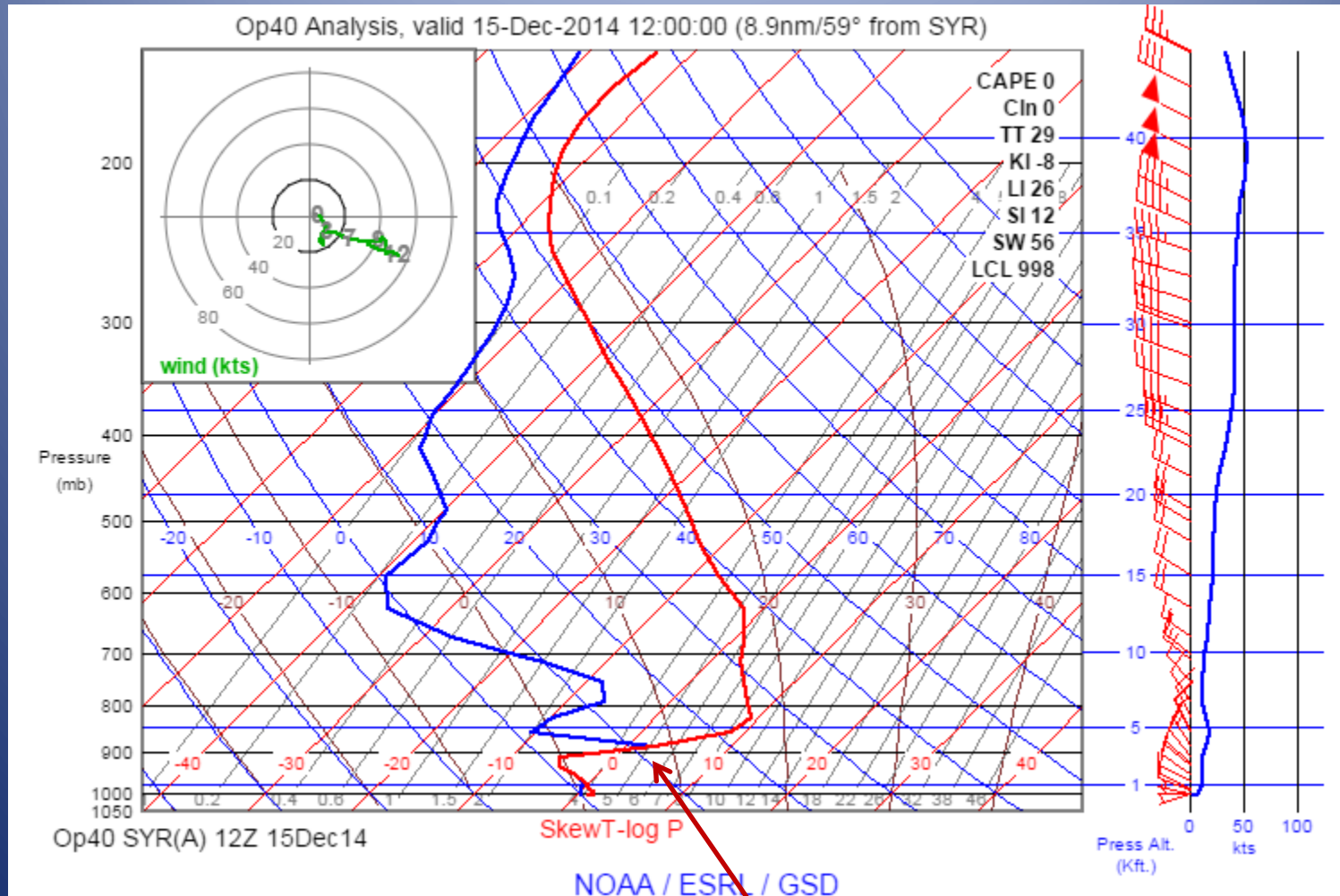


# What is a Skew T/Log P Diagram

- Uses radiosonde observations (RAOB) taken twice a day
- A vertical snapshot of temperature, dew point and winds above a point on the earth.
- Can show
  - Actual freezing level
  - Cloud tops
  - Icing
  - Multiple freezing levels
  - Altitudes & intensity
  - Turbulence & wind
  - Convective potential
  - And much more...

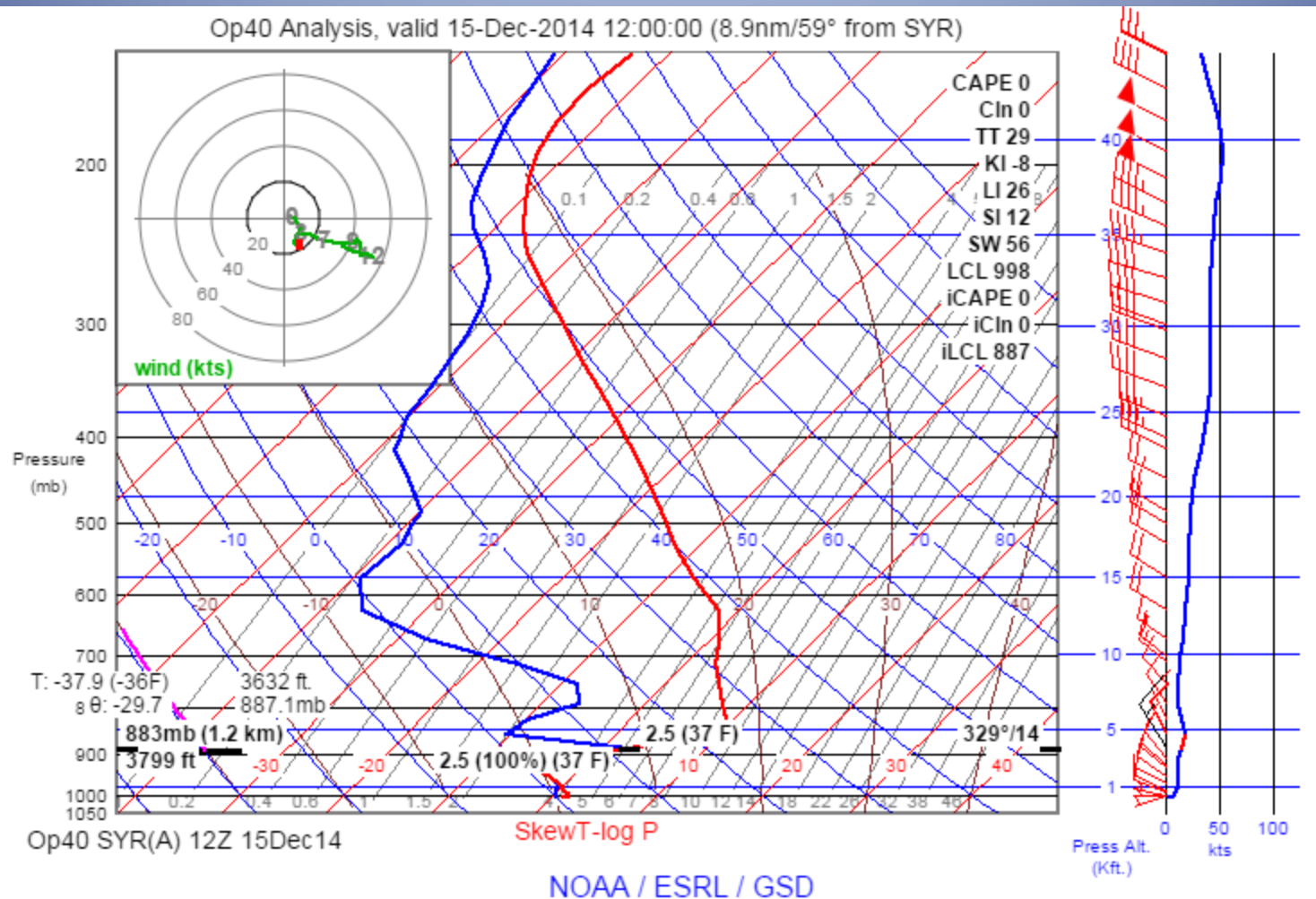
<http://rucsoundings.noaa.gov/>

# Skew T/Log P

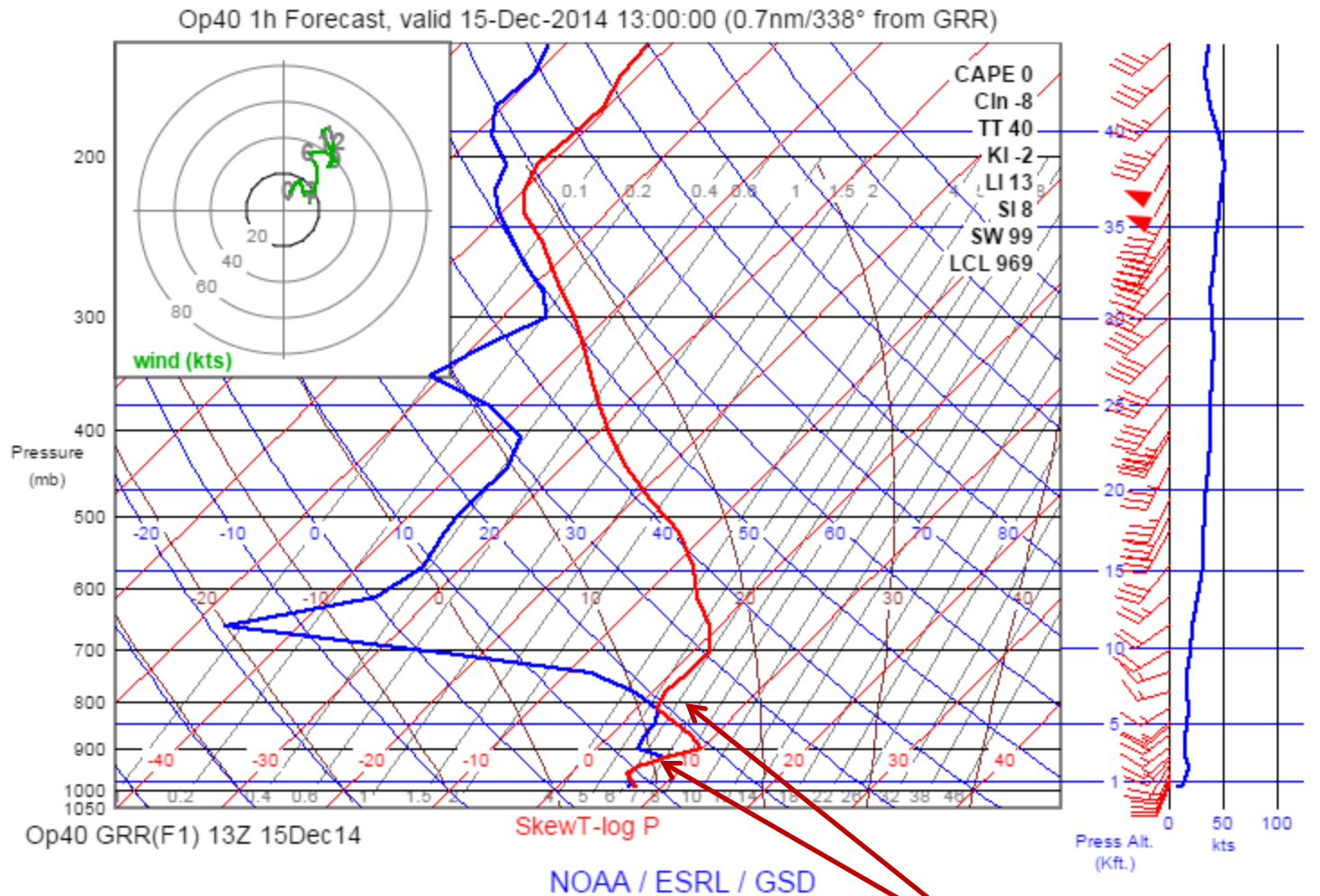


Cloud Tops at 3800 ft

# Skew T/Log P



# Skew T/Log P

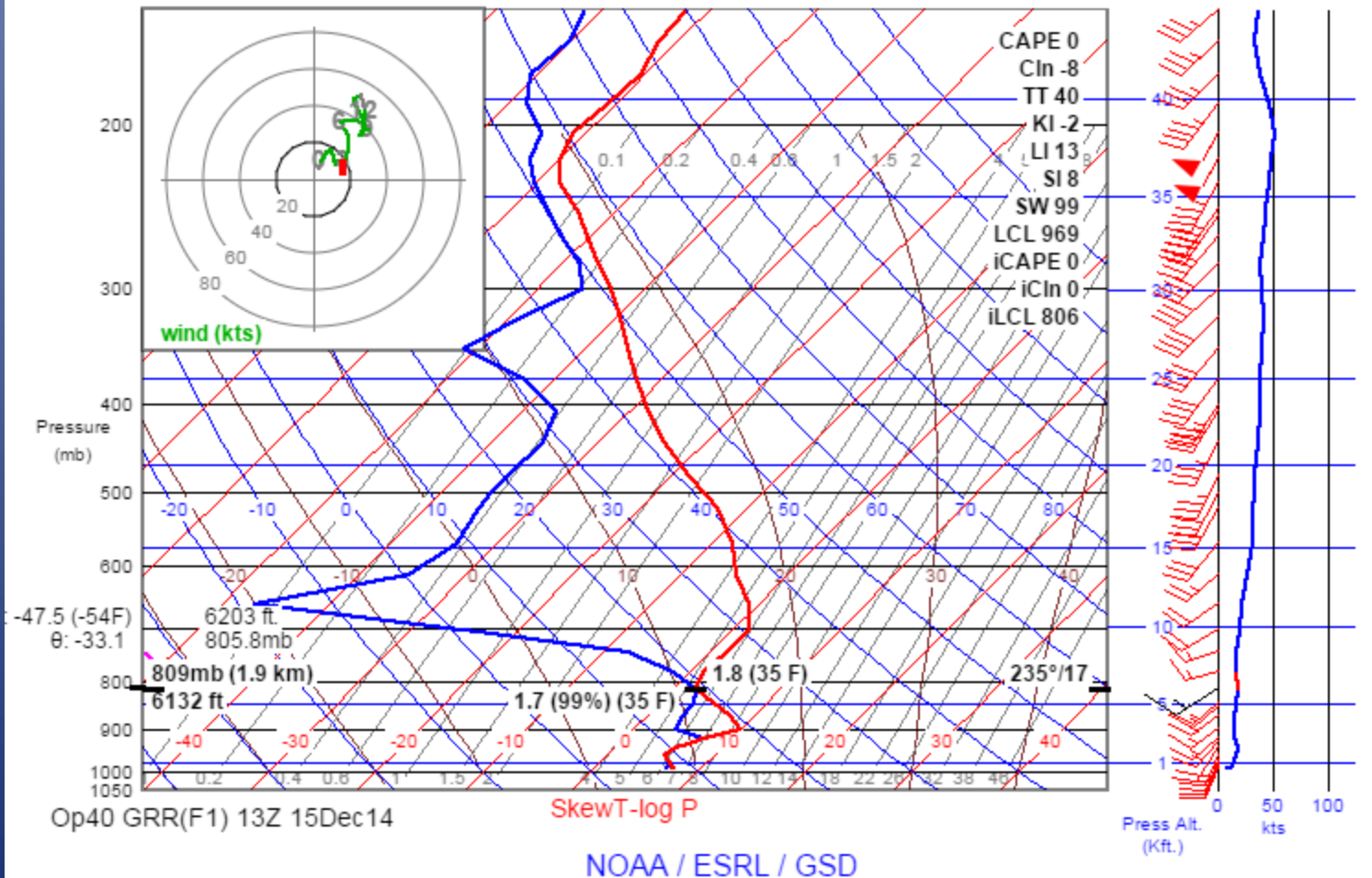


Cloud Layers

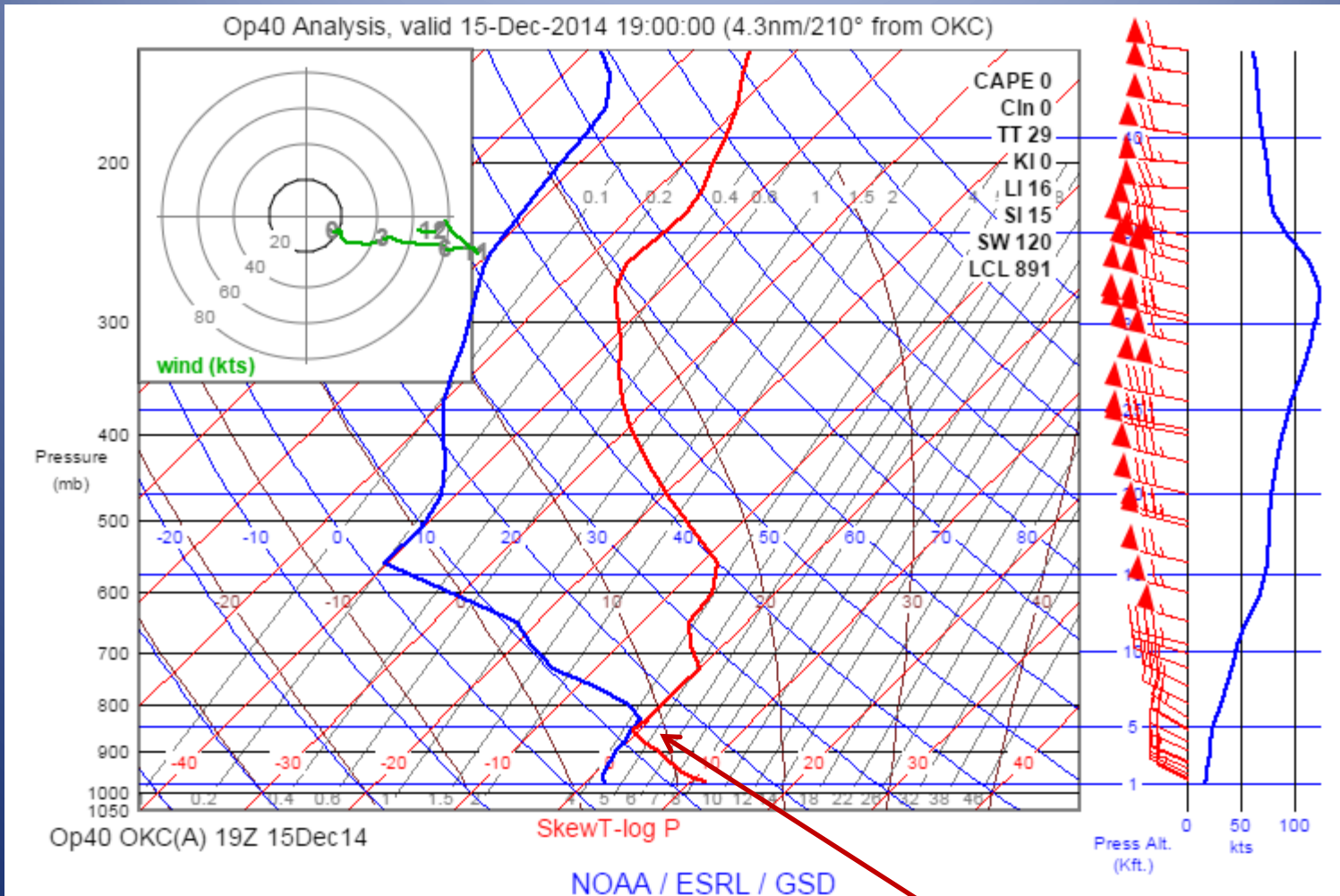


# Skew T/Log P

Op40 1h Forecast, valid 15-Dec-2014 13:00:00 (0.7nm/338° from GRR)



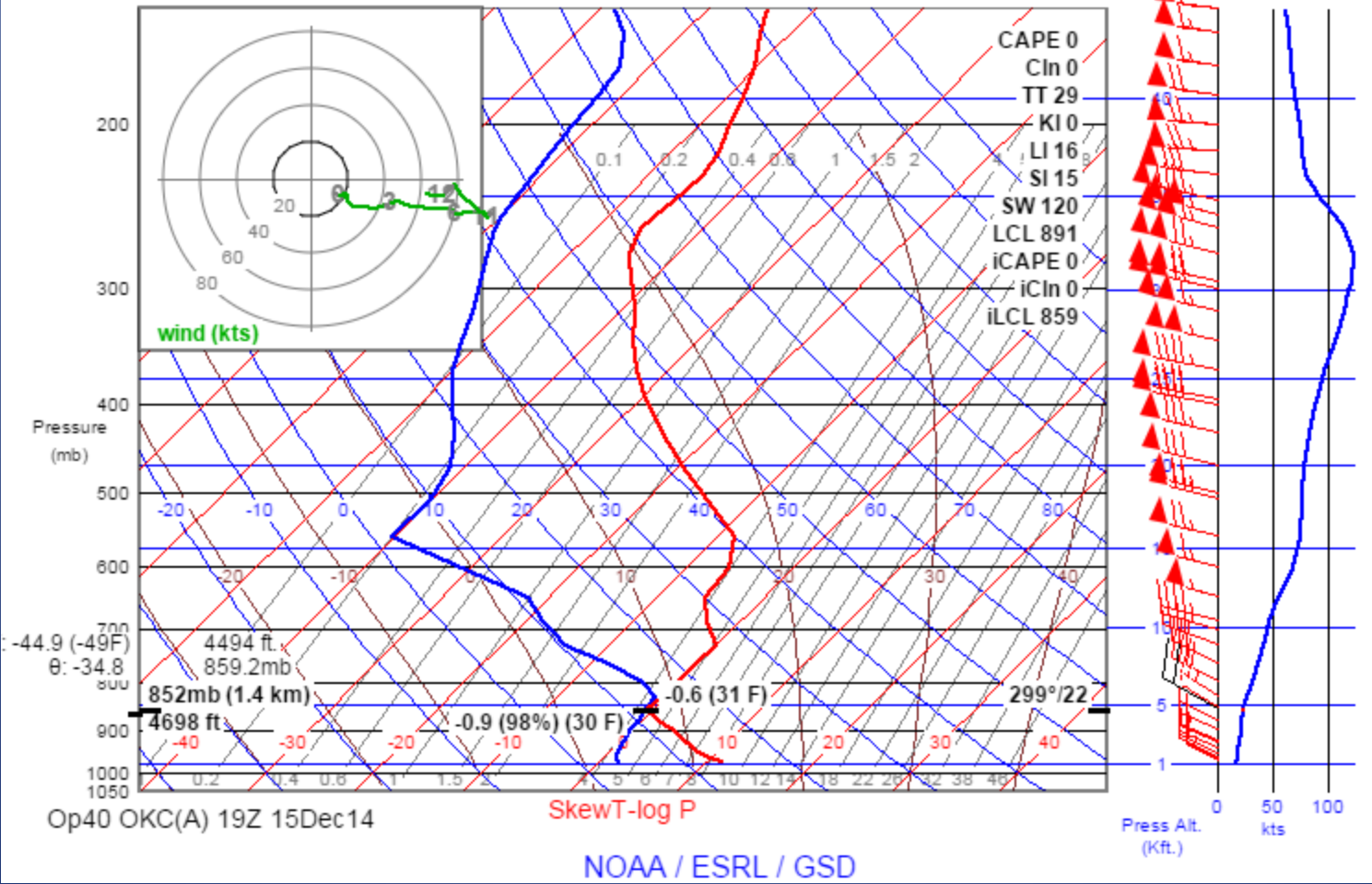
# Skew T/Log P



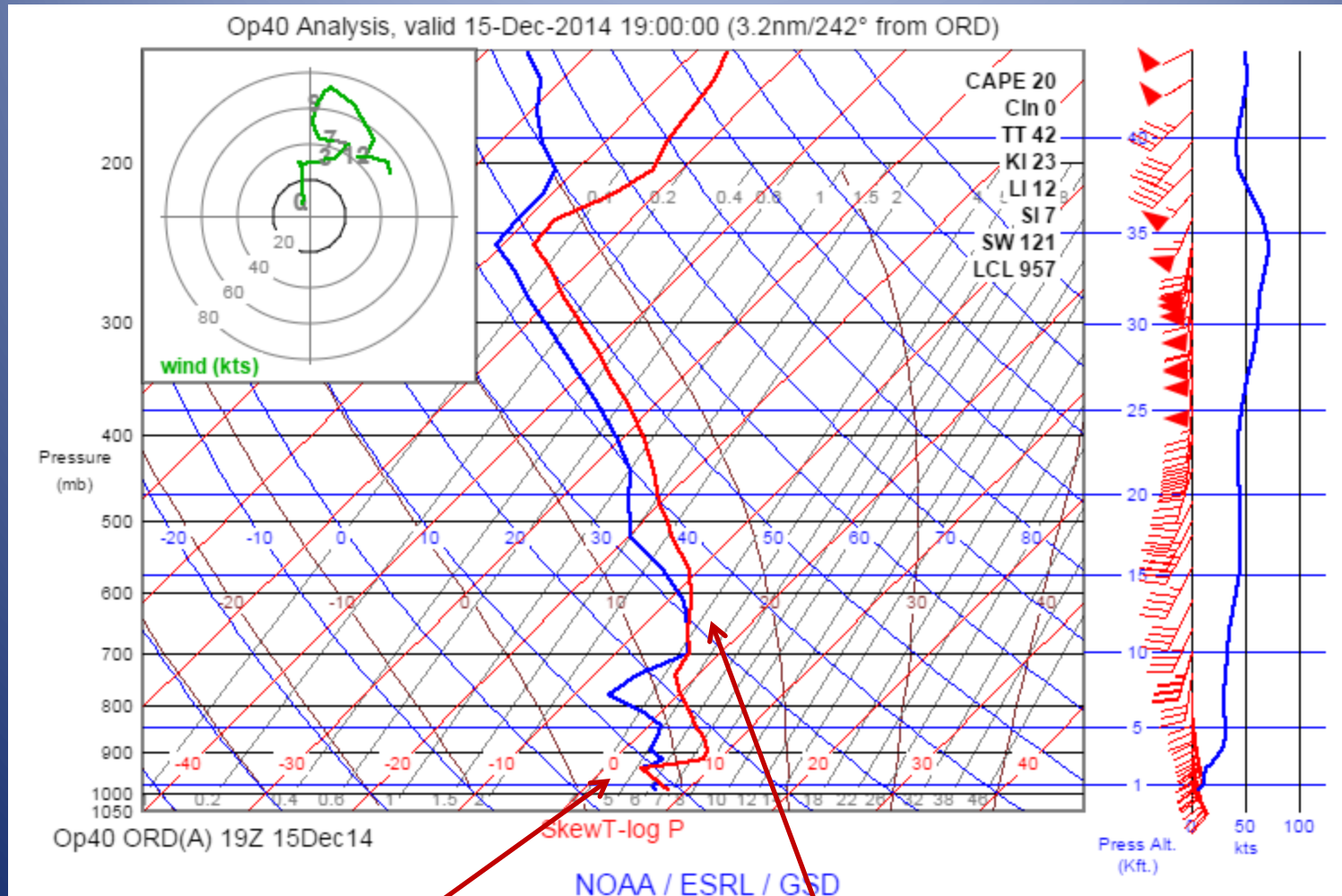
Thin cloud layer at 0 deg C

# Skew T/Log P

Op40 Analysis, valid 15-Dec-2014 19:00:00 (4.3nm/210° from OKC)



# Skew T/Log P



More layered clouds, tops at 2000 ft, 13000 ft.



Lockheed Martin Flight Service

[www.1800wxbrief.com](http://www.1800wxbrief.com)

# Other Useful Links

- [www.nws.noaa.gov/mdl/forecast/graphics/MAV/](http://www.nws.noaa.gov/mdl/forecast/graphics/MAV/) - GFS/NAM model graphics
- [www.windyty.com](http://www.windyty.com) – Wind/Temp/Pressure gradient graphics/animation at user selected altitude
- [www.saiawos.com/onlinelist.php](http://www.saiawos.com/onlinelist.php) - online AWOS displays and historical data (e.g VGC, 0G7, D38)
- [www.usairnet.com/cgi-bin/launch/code.cgi](http://www.usairnet.com/cgi-bin/launch/code.cgi) - Launch Code Aviation weather report and forecast
- [Avwxworkshops.com](http://Avwxworkshops.com) – Scott Dennestaedt's aviation weather workshops