

An aerial photograph showing a vast expanse of white, fluffy clouds under a clear blue sky. In the lower right corner, a portion of a white aircraft wing is visible, curving upwards. The wing's surface is smooth and reflects the light. Below the clouds, a patch of land with some structures and roads is visible.

Fairfield/M-ASA Ridge & Wave Flying Seminar

17 January 2015

Today's Plan...

Map/Description of Appalachian Ridge System

Ridge & Wave WX Forecasting

Ridge Flying Intro (DW)

Wave Flying Basics (WM)

Fairfield Long Task Routes/Methods

Long Duration/Distance Flight Considerations

Cold Weather Flight Considerations

23 April 2014 Flight

Questions/Discussion...

Appalachian Ridge System

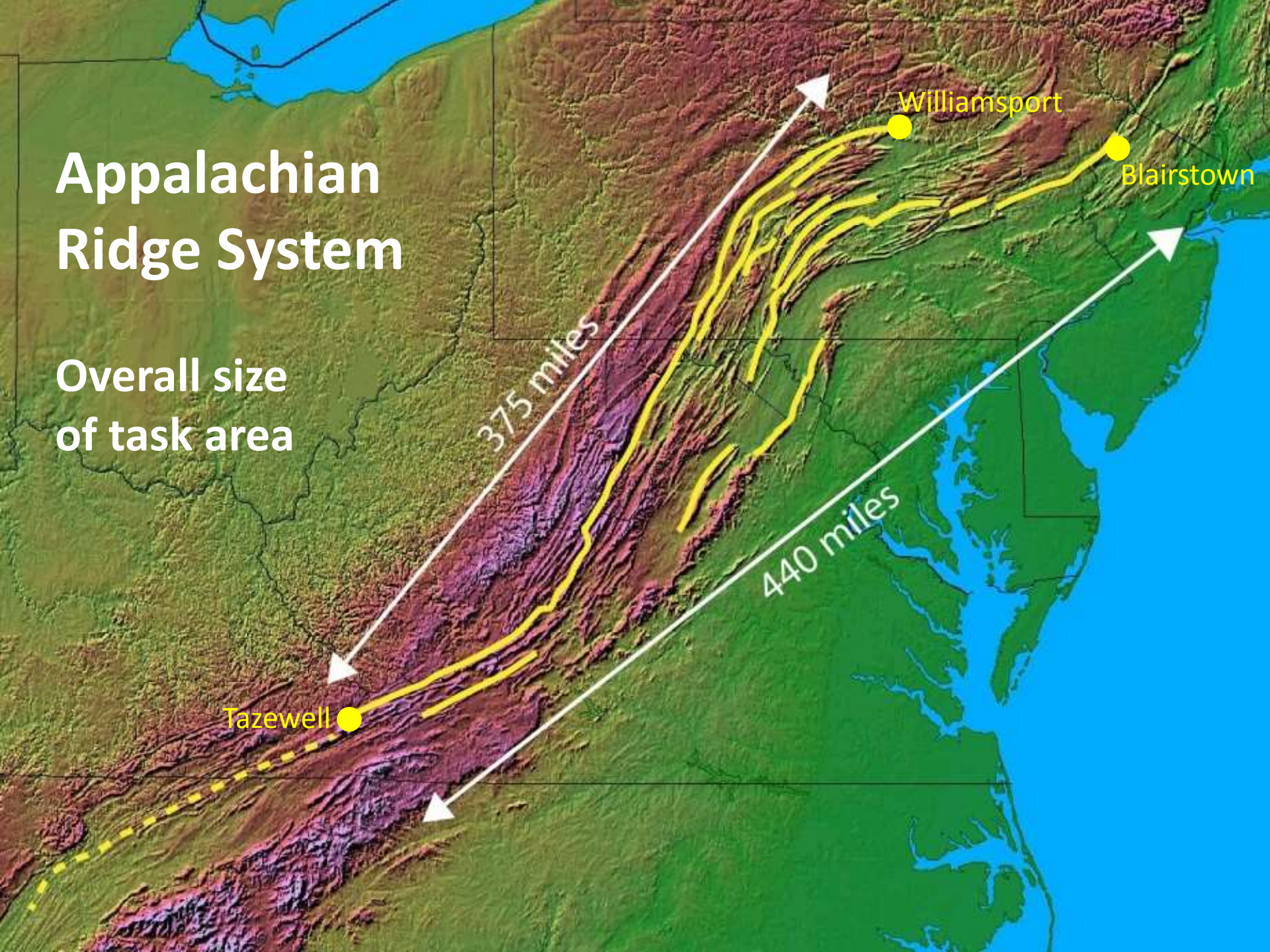
“the whole thing”

● Fairfield

A topographic map of the eastern United States, showing the Appalachian Ridge System. The map uses a color gradient where green represents lower elevations and brown/purple represents higher elevations. Several yellow lines are drawn across the map, highlighting the ridges. A black dot labeled 'Fairfield' is located in the upper right quadrant, near the Maryland/Virginia border. The Chesapeake Bay is visible on the right side of the map.

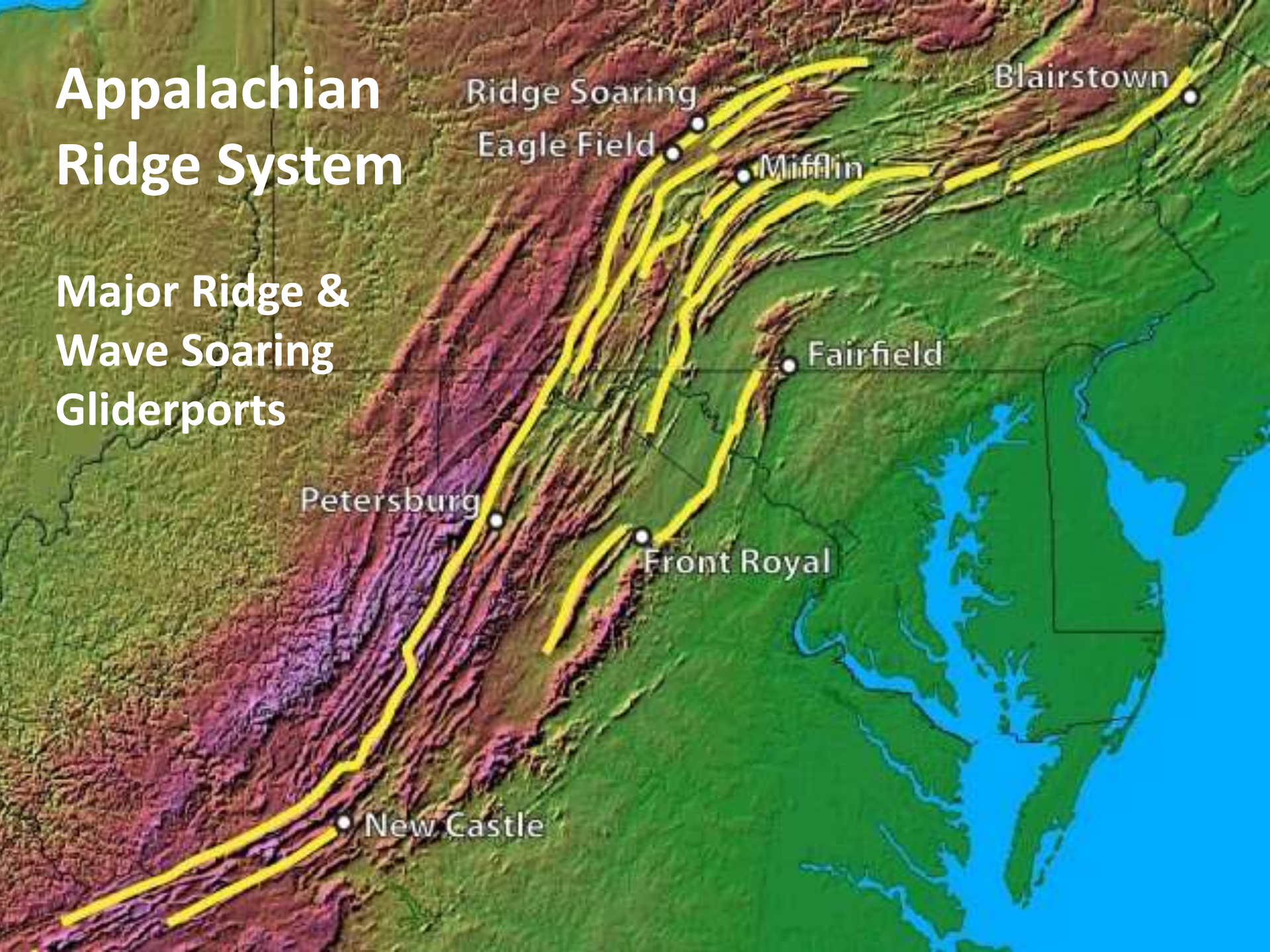
Appalachian Ridge System

Overall size
of task area

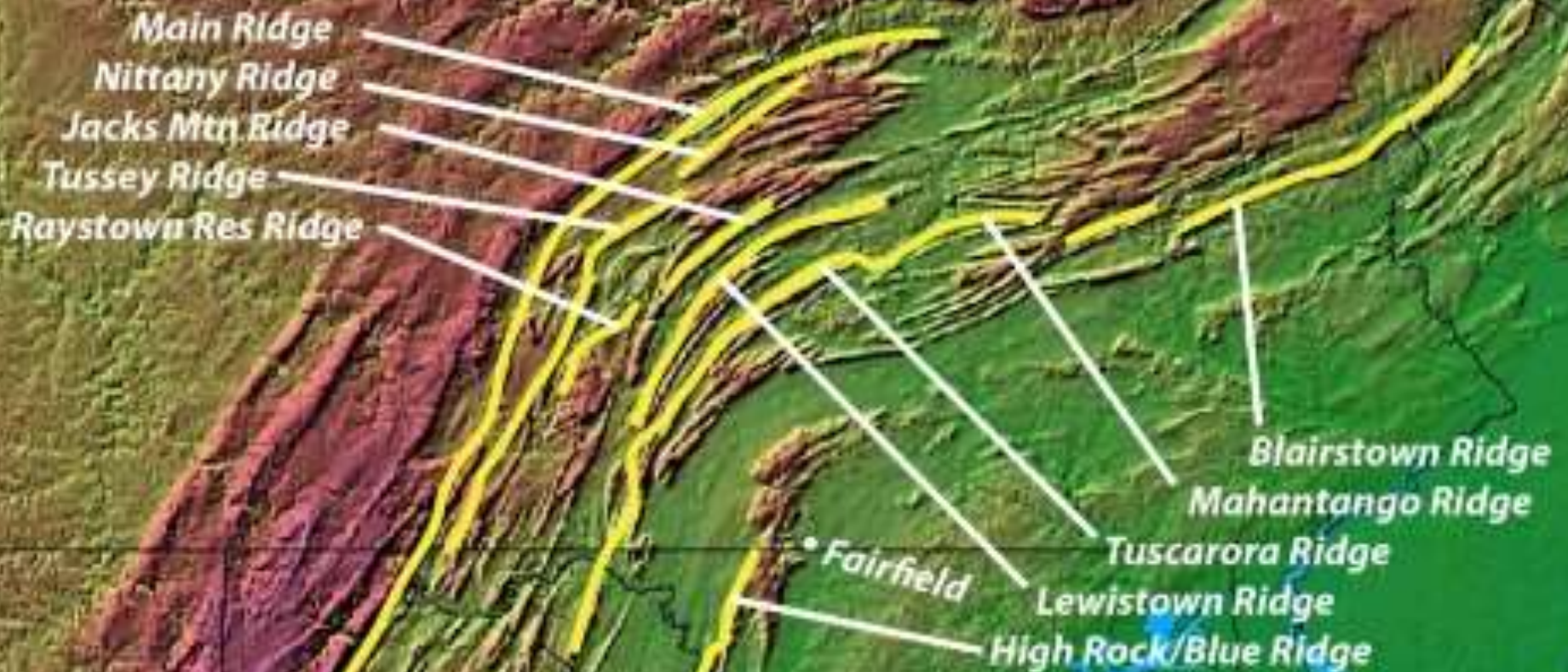


Appalachian Ridge System

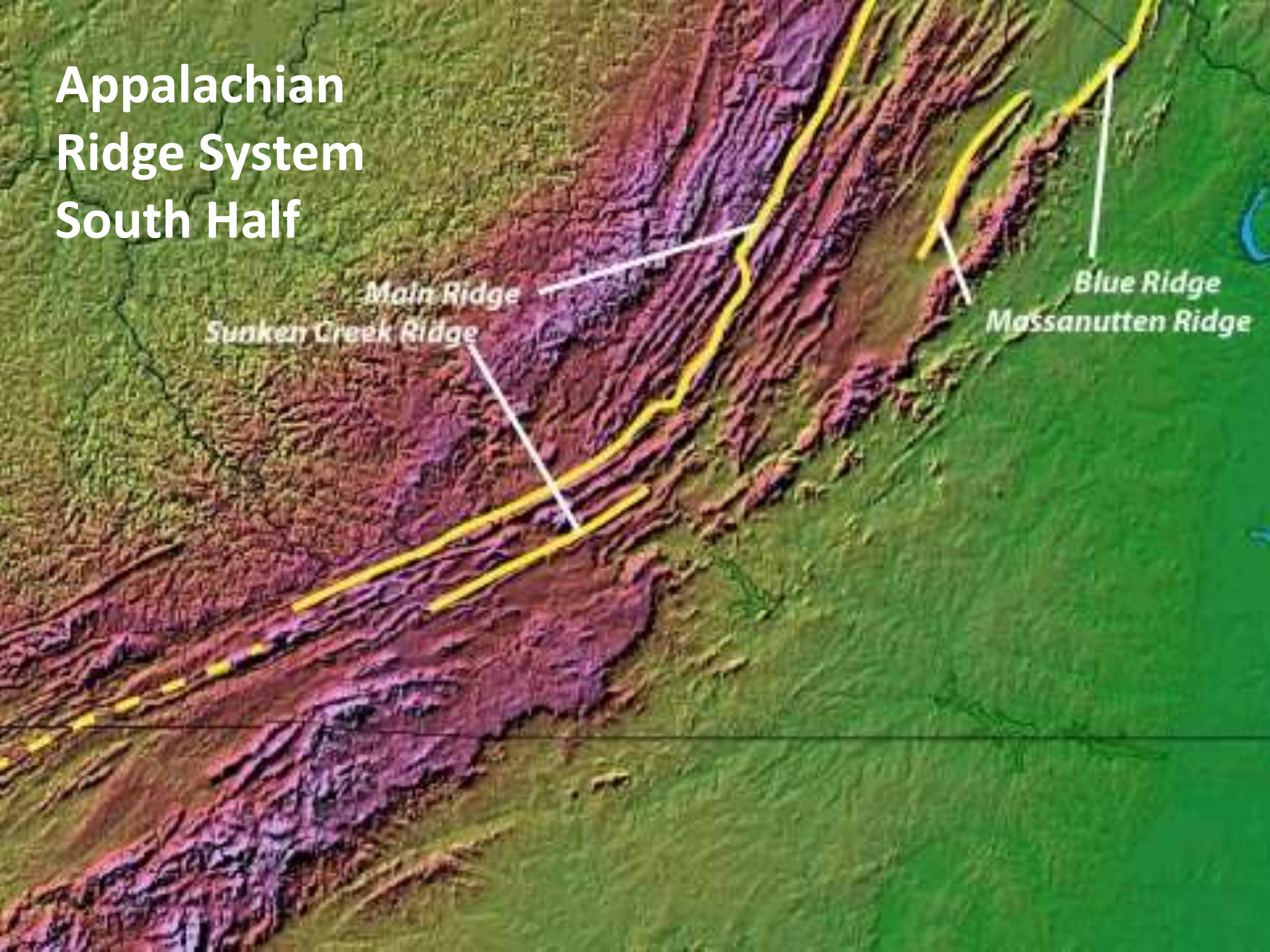
Major Ridge & Wave Soaring Gliderports



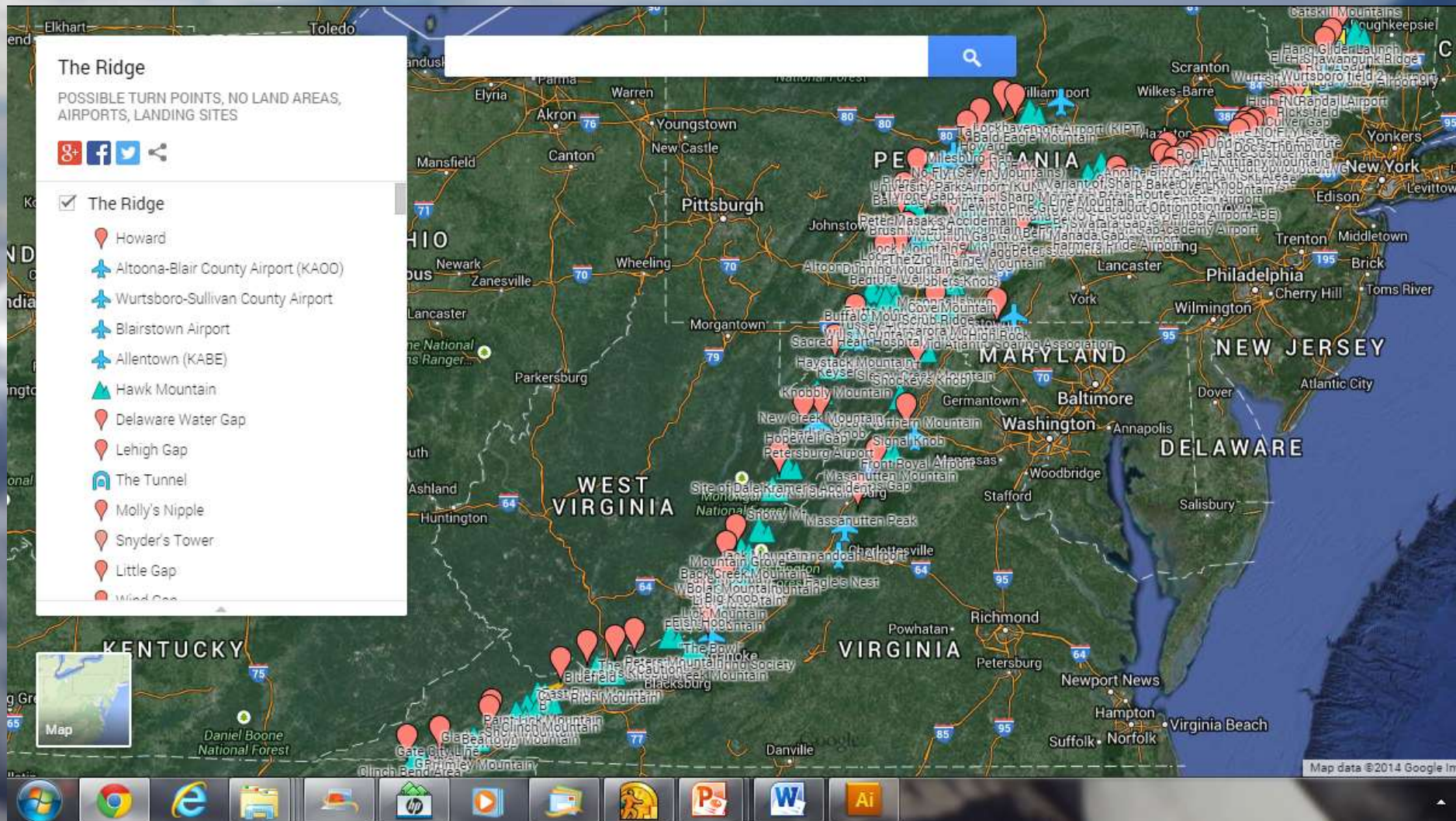
Appalachian Ridge System North Half




Appalachian Ridge System South Half




https://mapsengine.google.com/map/viewer?mid=zvgBN5F6QW2Y.kKm1AE_RXNe0











← → ↻ <https://groups.google.com/forum/#!forum/amsoaring>

Google 

Groups **NEW TOPIC**  Mark all as read Filters ▾

▶ **Appalachian Mountains Soaring Site** Shared privately
30 of 102 topics (78 unread) ☆

-  **Soaring the Appalachians Seminar, 7-8 Feb 2015** (2)
By Janine Acee - 2 posts - 31 views
-  **Ridge Alert Saturday 12/13 and Sunday 12/14** (1)
By Erik Mann - 1 post - 15 views
-  **November 21st Ridge Day** (9)
By Daniel Sazhin - 9 posts - 68 views
-  **November 12 and 13 Ridge Alert** (8)
By Erik Mann - 8 posts - 68 views
-  **Nov 7 Ridge Alert** (8)
By me - 8 posts - 85 views
-  **November 1 and 2 Ridge Alert** (13)
By Erik Mann - 13 posts - 143 views
-  **New water into old ballast tanks** (2)
By Tom Stepleton - 2 posts - 26 views
-  **Re: Sunday October 26 Ridge Flights** (5)

WX Forecasting for Long Ridge/Wave Flights

1 week out

2 – 4 days out

1 – 24 hours out

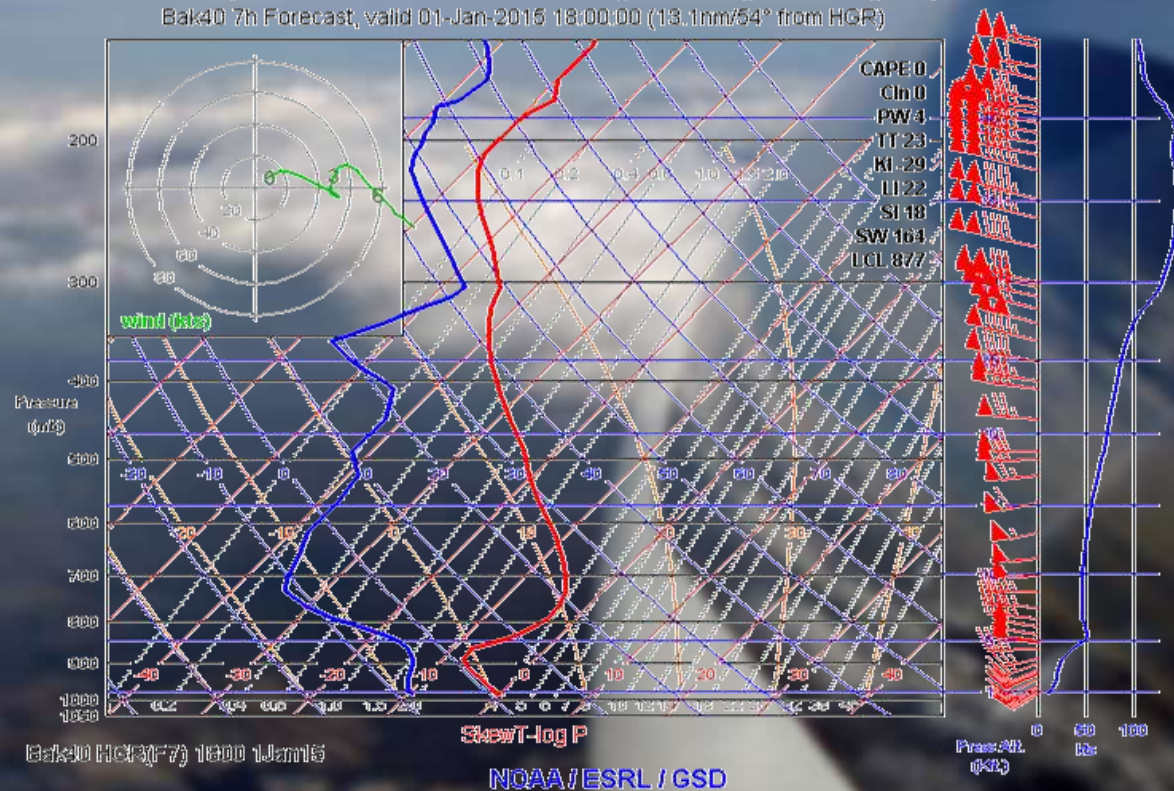
Latest Bak40 analysis is valid at 12:00 UTC.

Latest Op40 analysis is valid at 11:00 UTC.

For up-to-date information about the status of RAP runs, see the [RUCRAP forum \(new window\)](#).

(You can subscribe to this forum to get email copies of new posts.)

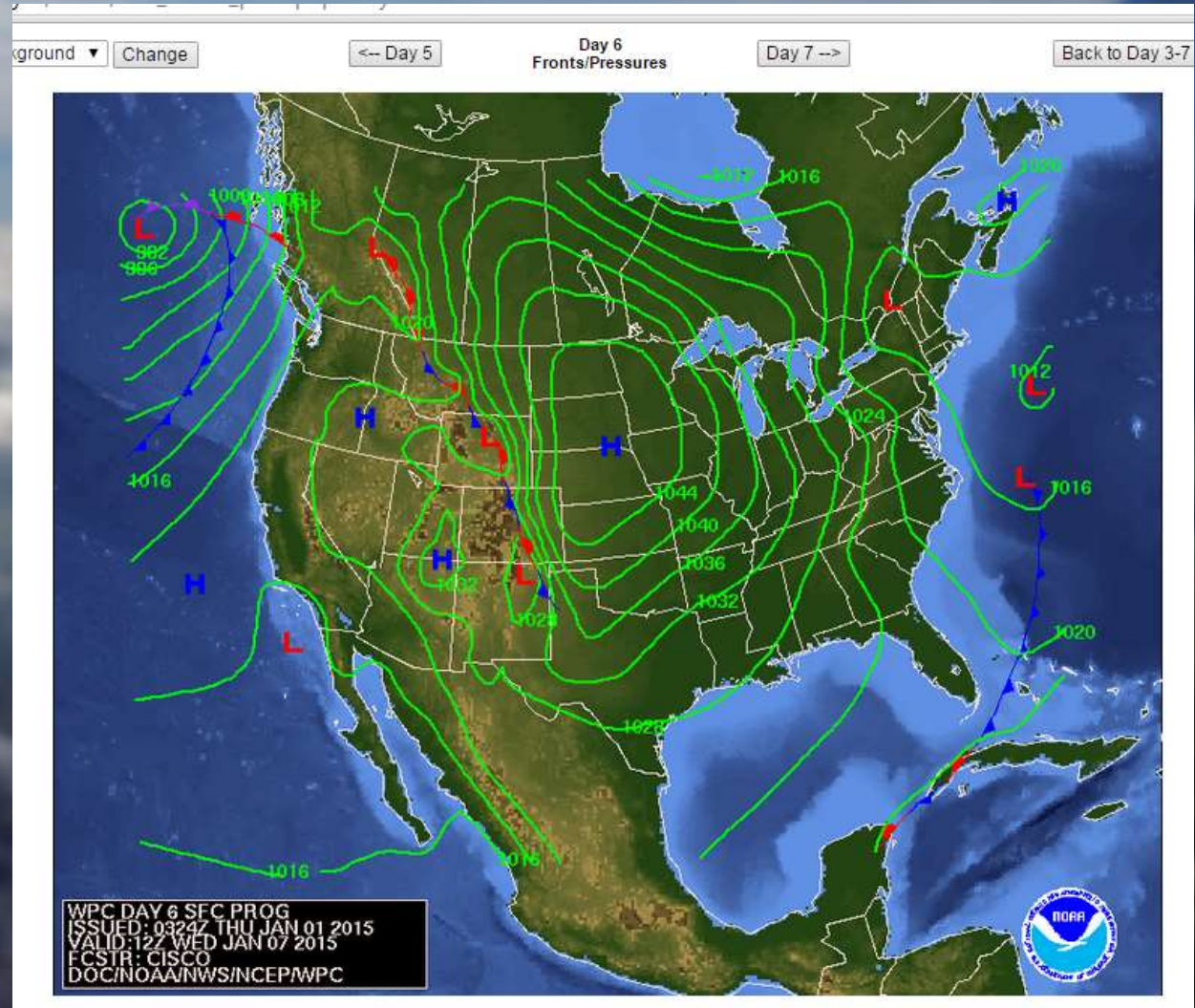
Bak40 7h Forecast, valid 01-Jan-2015 18:00:00 (13.1nm/54° from HGR)



WX Forecasting -- 1 Week Out

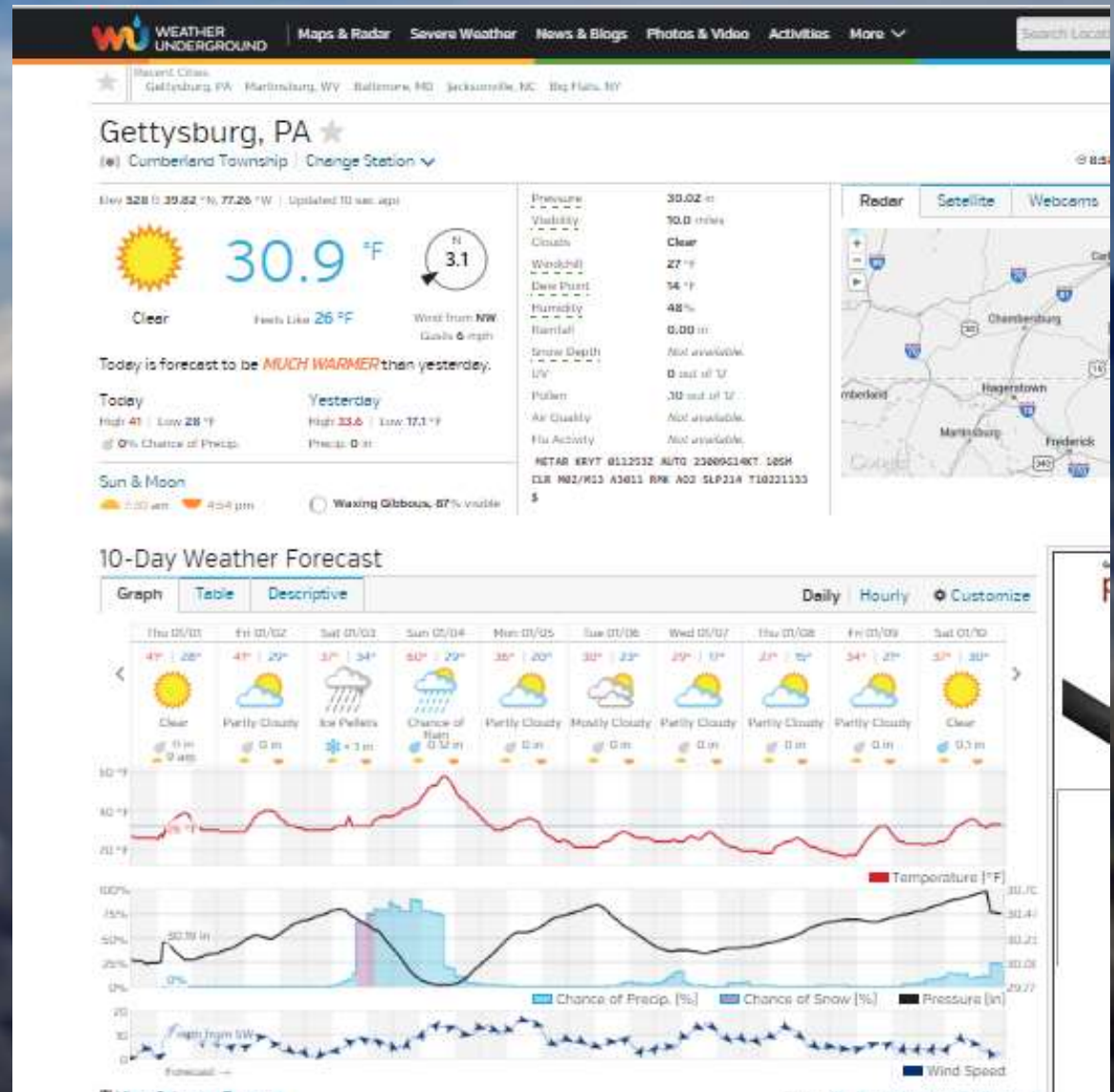
3 – 7 Day Sfc Prog Charts – NOAA Weather Prediction Center

<http://www.hpc.ncep.noaa.gov/medr/medr.shtml>



WX Forecasting -- 1 Week Out



General Forecast – Weather Underground



WX Forecasting -- 2 – 4 Days Out

Aviation Weather Center/ADDs

<http://www.aviationweather.gov/adds/>



AVIATION WEATHER CENTER


NOAA NATIONAL WEATHER SERVICE

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ADDs - Aviation Digital Data Service


Home	Turbulence	Icing	Convection	Wind/Temps	Prog Charts	Java Tools
METARs	Ceil&Vis	TAFs	PIREPS	SIGMETs	Satellite	Radar

News and Information

 [2014 Oct 31] [Experimental CDM Convective Guidance](#)

The **Aviation Digital Data Service (ADDs)** makes available to the aviation community text, digital and graphical forecasts, analyses, and observations of aviation-related weather variables. ADDs is a joint effort of NCAR Research Applications Program (RAP), Global Systems Division (GSD) of NOAA's Earth System Research Laboratory (ESRL), and the National Centers for Environmental Prediction (NCEP) Aviation Weather Center (AWC).

Current SIGMETs:



The **National Weather Service** operationally supports this site as well as the following operational products:

<ul style="list-style-type: none">• METARs• TAFs• PIREPS• AIR/SIGMETs• Satellite• Radar	<ul style="list-style-type: none">• Analysis & Prognostic Charts• Graphical wind & temperature charts• National Convective Weather Forecast• Current & Forecast Icing Potential• Graphical Turbulence Guidance
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The **Federal Aviation Administration** funds and directs the continuing development of ADDs as well as other experimental products being developed by the **FAA Aviation Weather Research Program (AWRP)**.

The results of the latest ADDs development efforts along with new experimental AWRP algorithm results

WX Forecasting -- 2 – 4 Days Out

Aviation Weather Center/ADDs

Graphical Winds,
SFC to FLs,
up to 3.5 days out

Wind/Temps

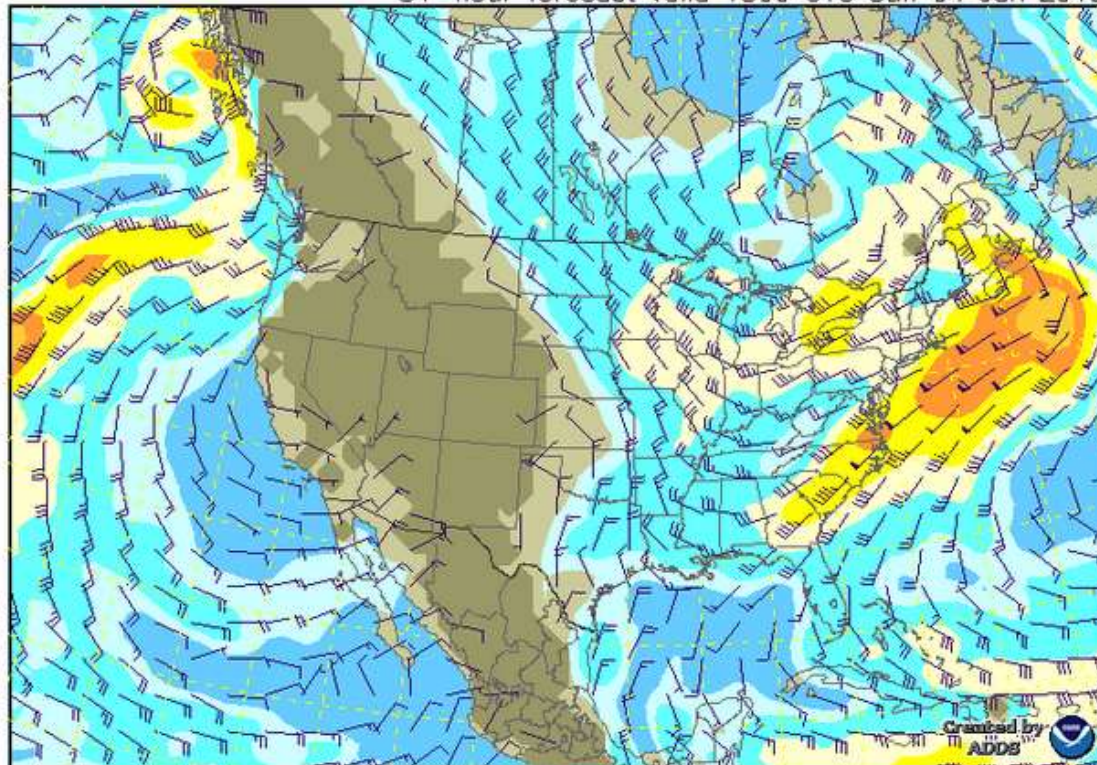
- Official NWS Textual FB Winds/Temps Aloft

[Print Layout](#)

☐ Temperature ☒ Wind Speed ☐ Temperature difference ☐ Wind Streamlines

Wind speed (kts) at 3,000 ft MSL (900 mb)

84-hour forecast valid 1800 UTC Sun 04 Jan 2015



15 20 30 40 50 60 80 100 (knots)

WX Forecasting -- 2 – 4 Days Out

Dr Jack's BLIPMAPs -- NAM

Thermal Updraft Velocity

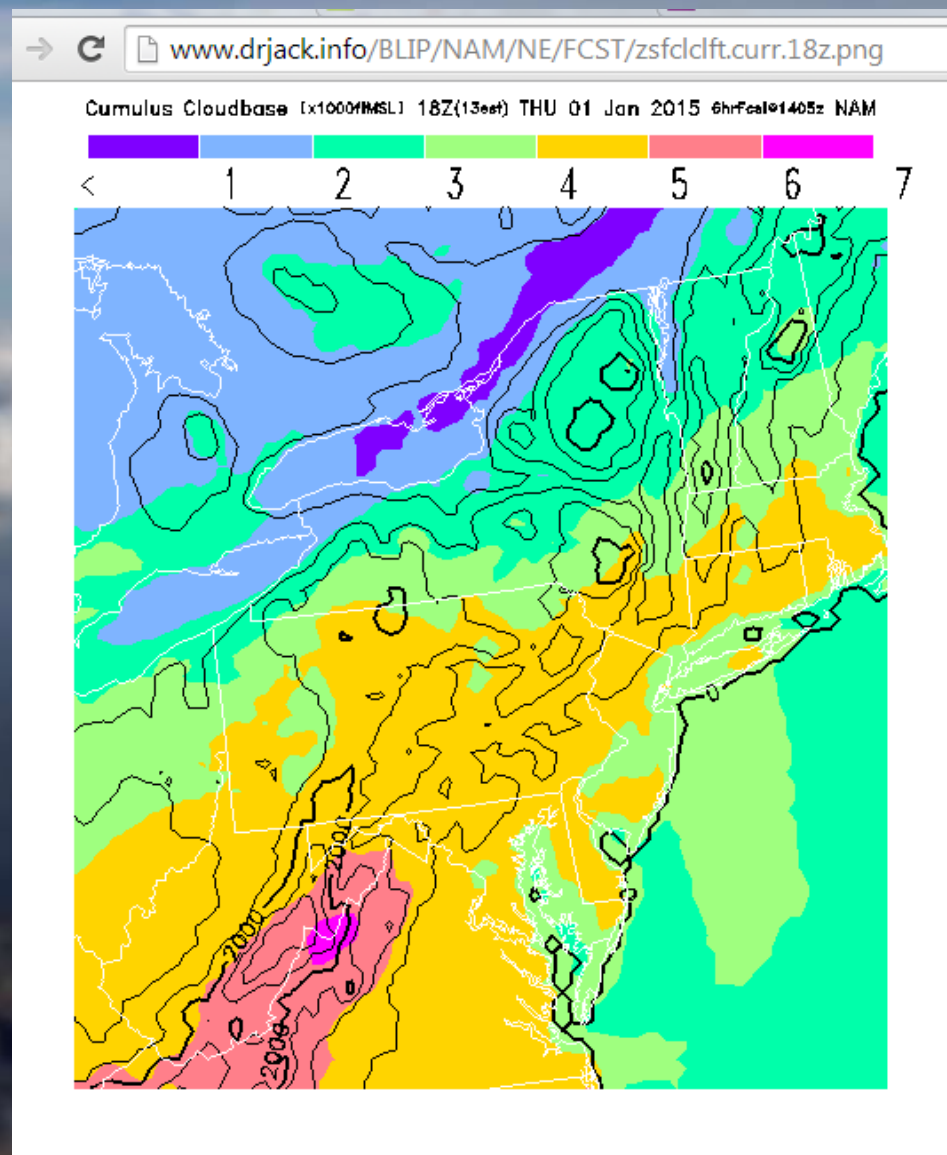
Wind Speed in Boundary Layer

Wind Direction in Boundary Layer

Cumulus Potential

Cumulus Cloudbase

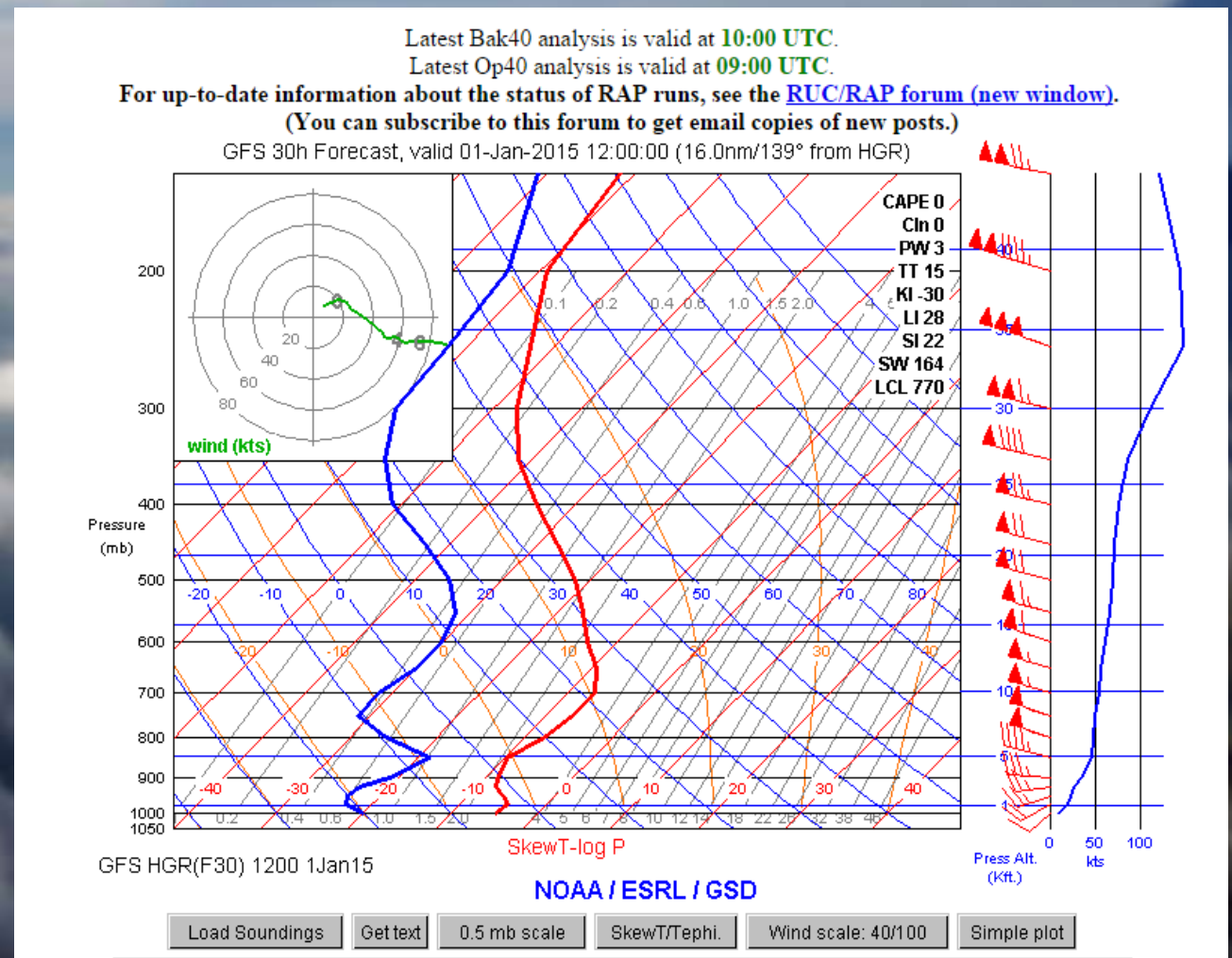
Total Cloud Cover



WX Forecasting -- 2 – 4 Days Out

GFS Soundings –

<http://www-frd.fsl.noaa.gov/mab/soundings/java>



WX Forecasting -- 1 – 24 Hours Out

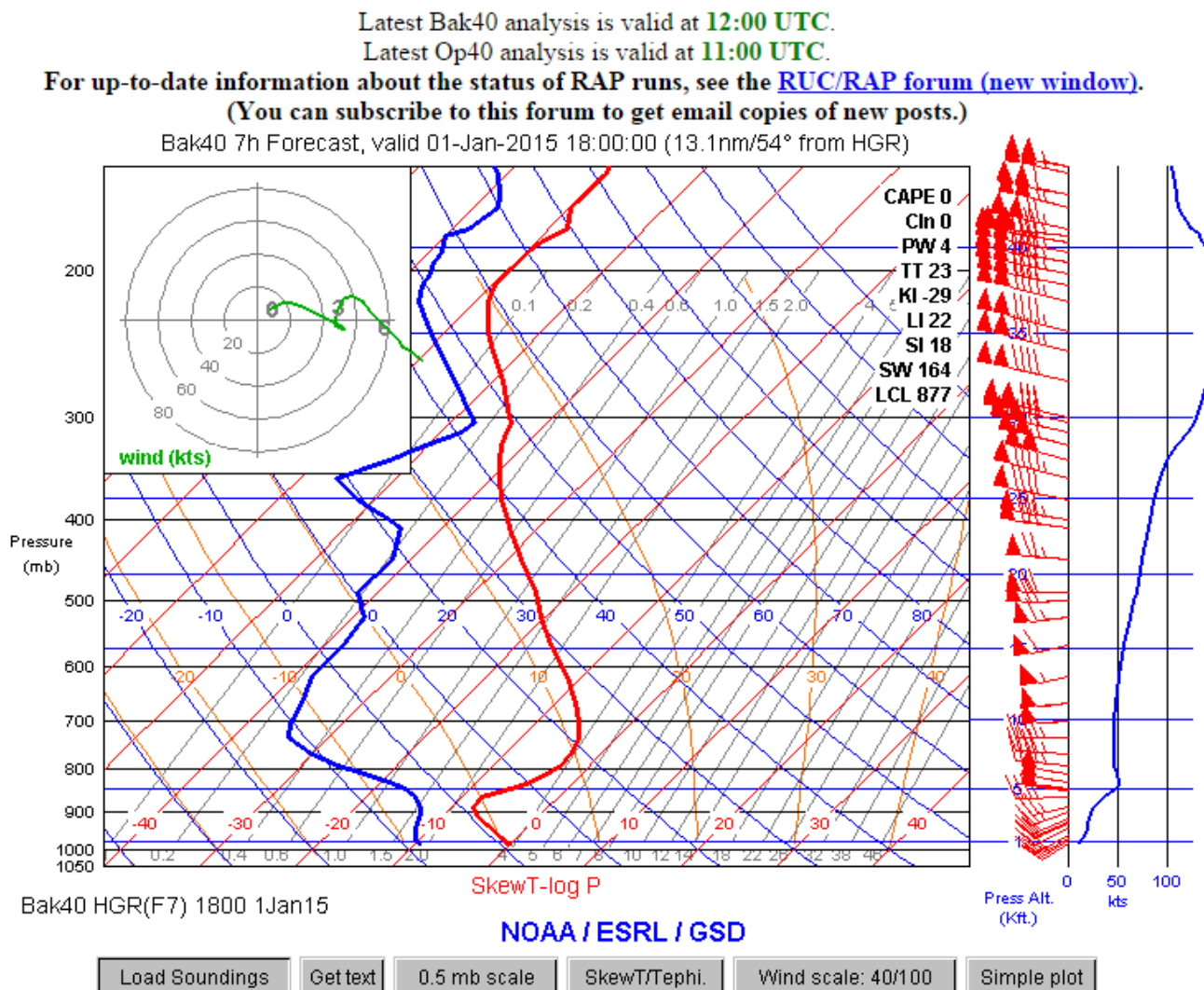
Bak40 Sounding (1 – 21 hours out)

[http://www-](http://www-frd.fsl.noaa.gov/mab/soundings/java/plot_soundings.cgi?airport=thv&start=latest&n_hrs=24&data_source=MAPS)

[frd.fsl.noaa.gov/mab/soundings/java/plot_soundings.cgi?airport=thv&start=latest&n_hrs=24](http://www-frd.fsl.noaa.gov/mab/soundings/java/plot_soundings.cgi?airport=thv&start=latest&n_hrs=24&data_source=MAPS)
&data_source=MAPS

Sites:

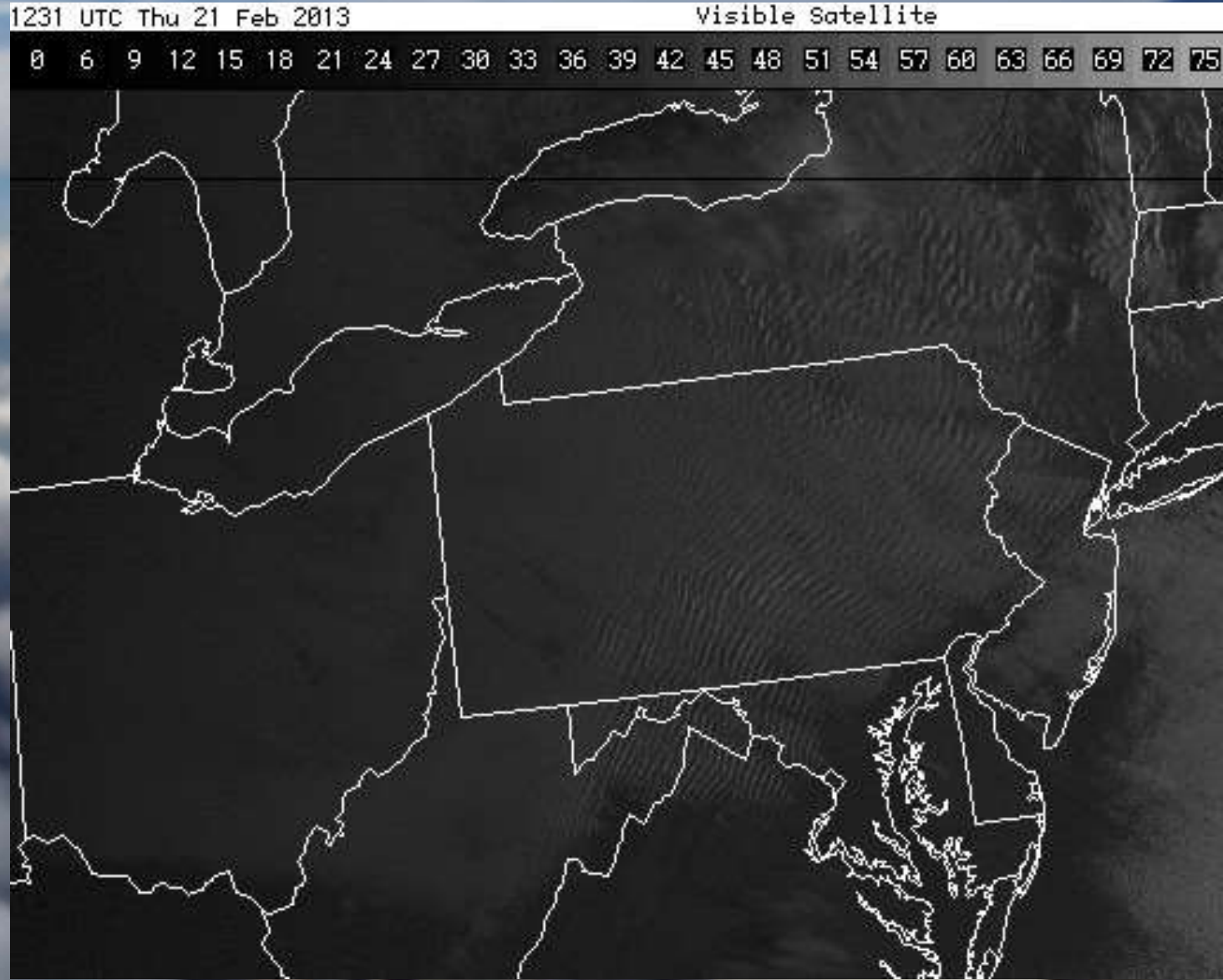
HGR
AOO
CBE
UNV
SHD
ABE
HSP



WX Forecasting -- 1 – 24 Hours Out

ADDS Satellite Imagery

(Visible and IR)



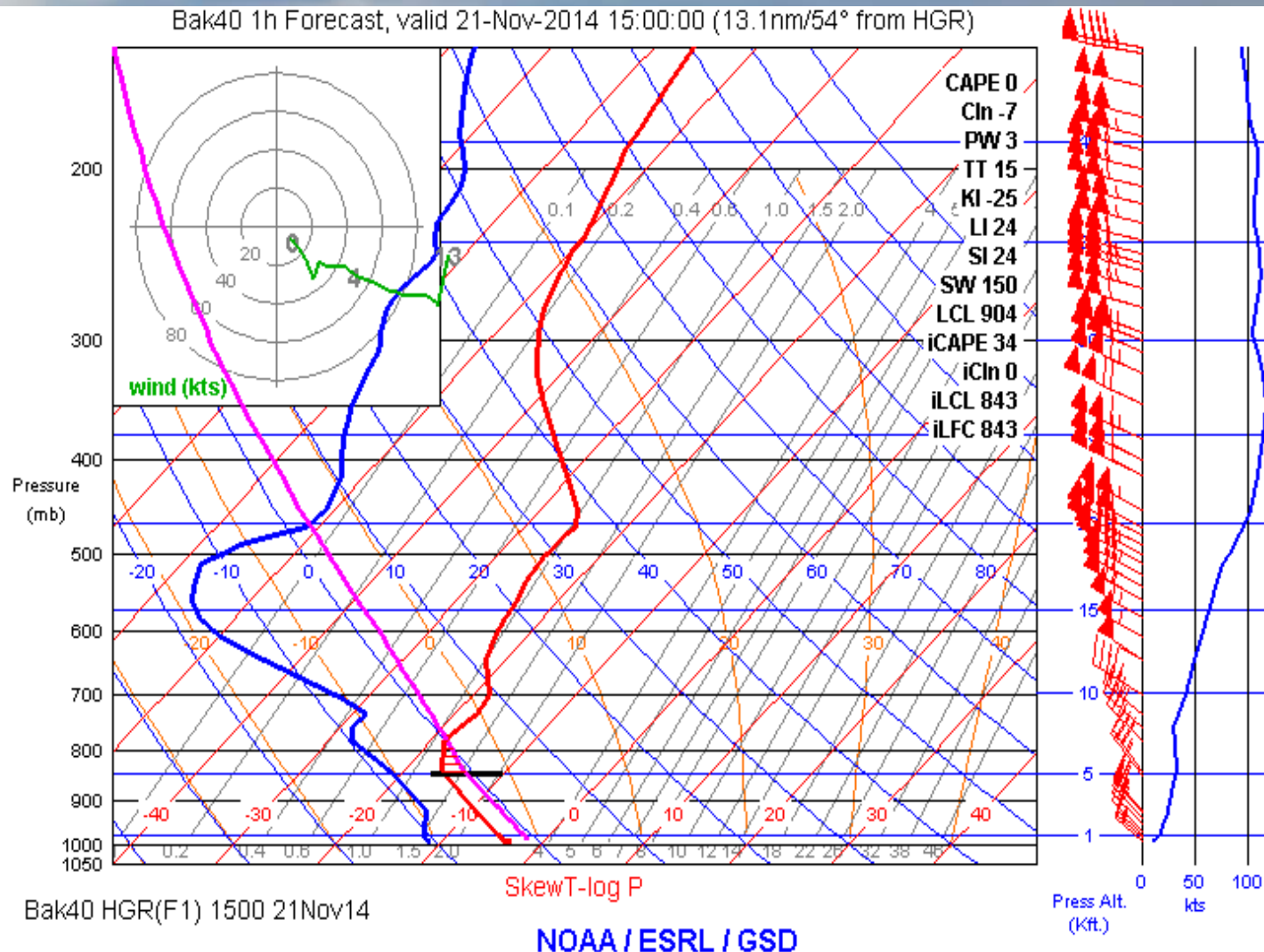
WX Forecasting -- 1 – 24 Hours Out

1 hours out, turn off computer and look at the sky...



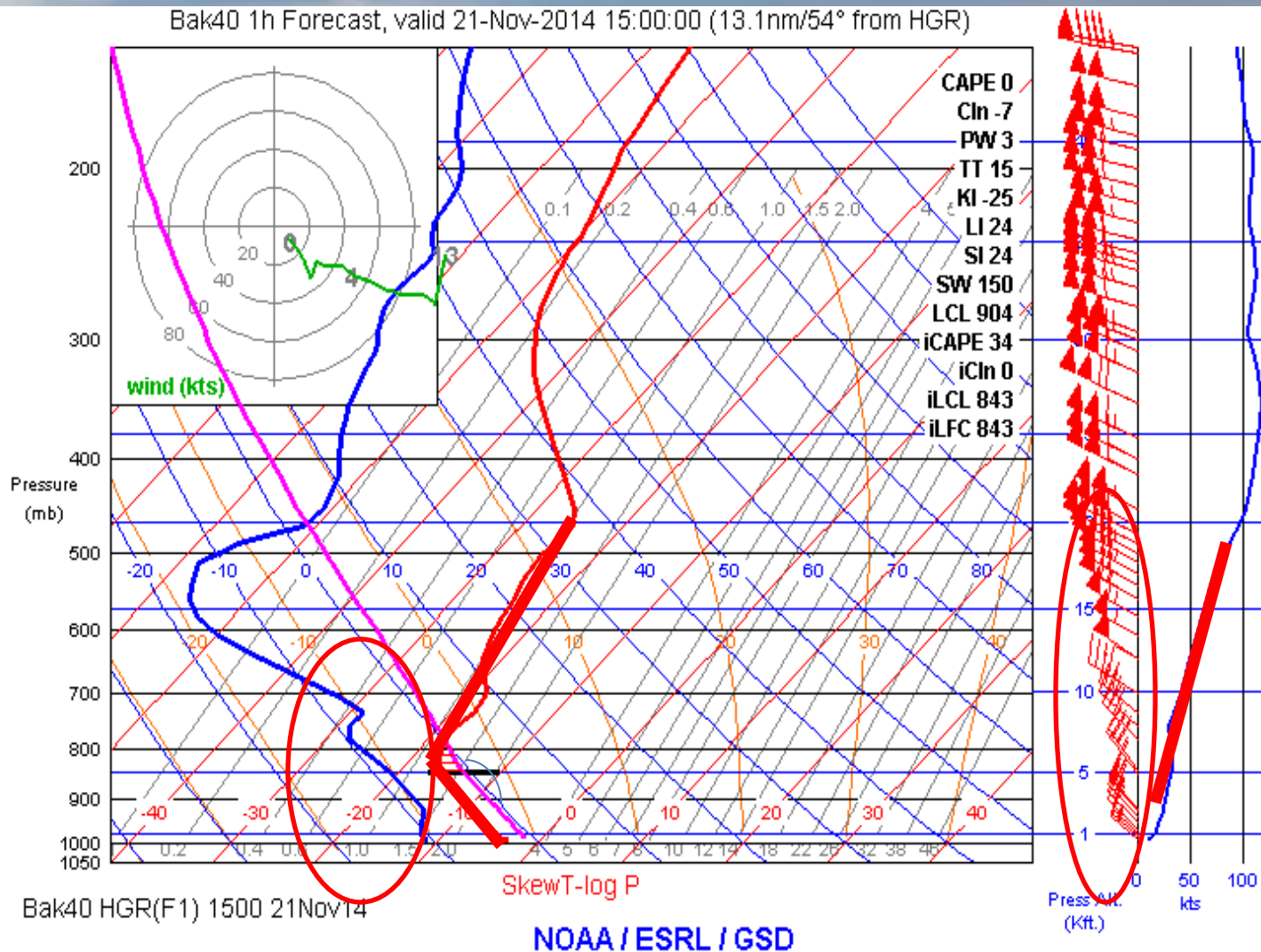
WX Forecasting – Skew T Sounding Plot

21 Nov 14, an average good wave/ridge day...



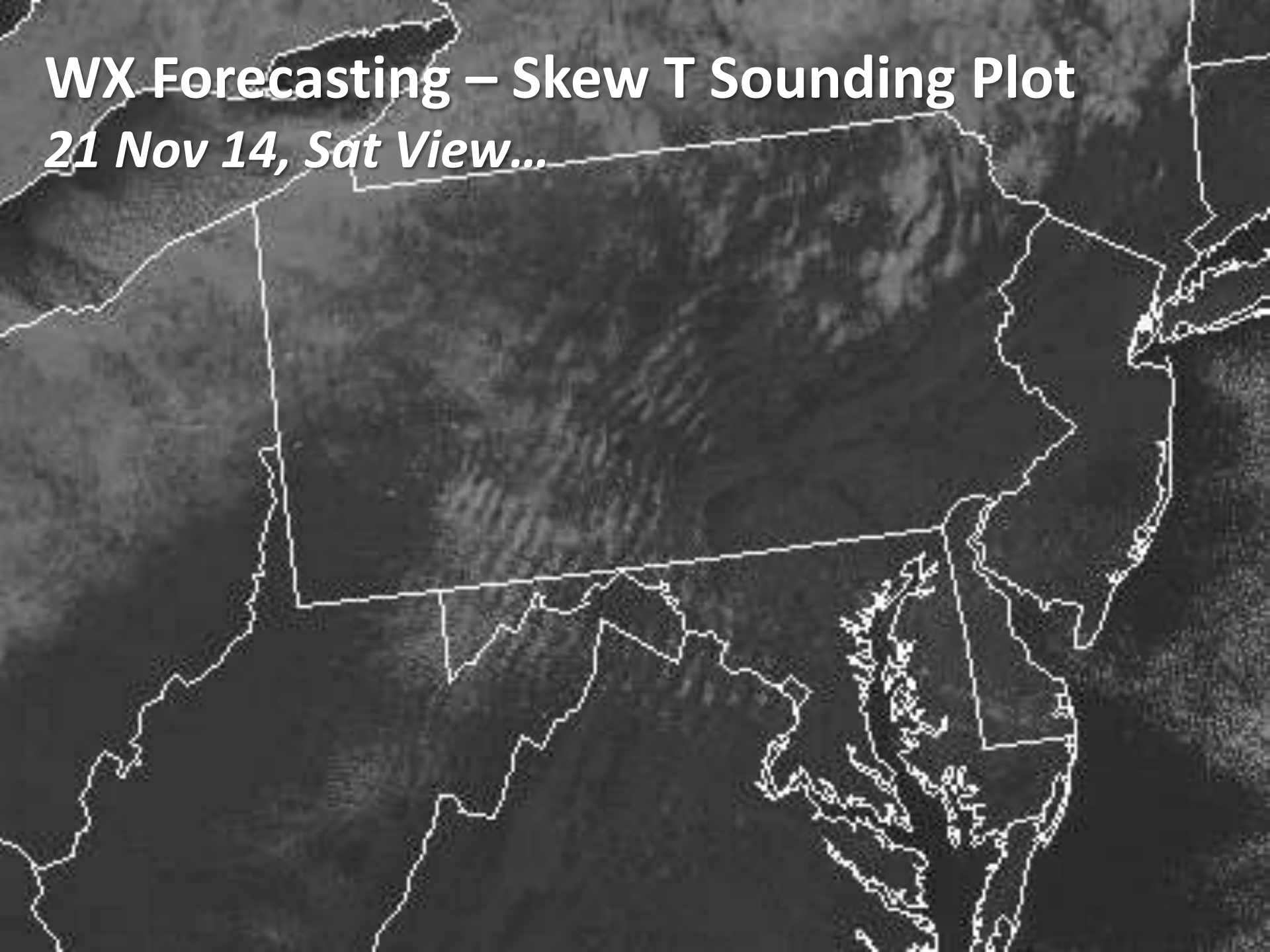
WX Forecasting – Skew T Sounding Plot

21 Nov 14, Key Items...



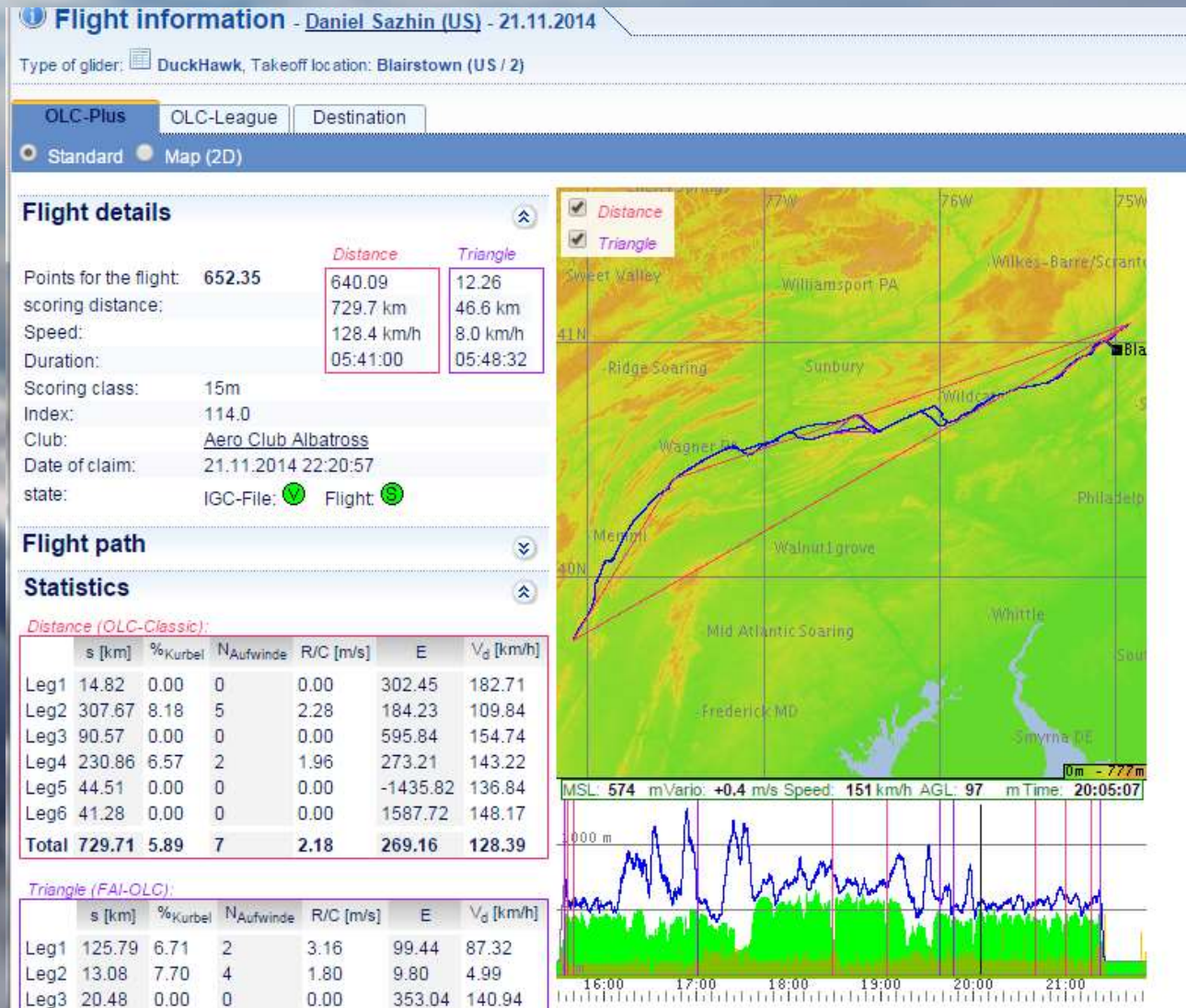
WX Forecasting – Skew T Sounding Plot

21 Nov 14, Sat View...

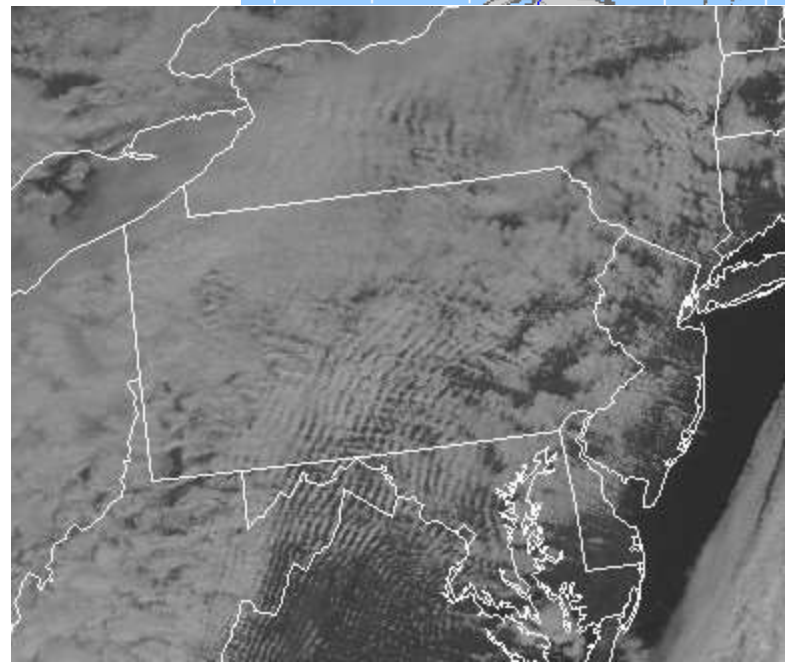
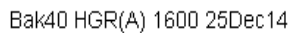


WX Forecasting – Skew T Sounding Plot

21 Nov 14, Dan Sazhin, 730km from Blairstown



Very nice wave/ridge day...



1 Jan 2015 Sounding

A nice SW wave day...

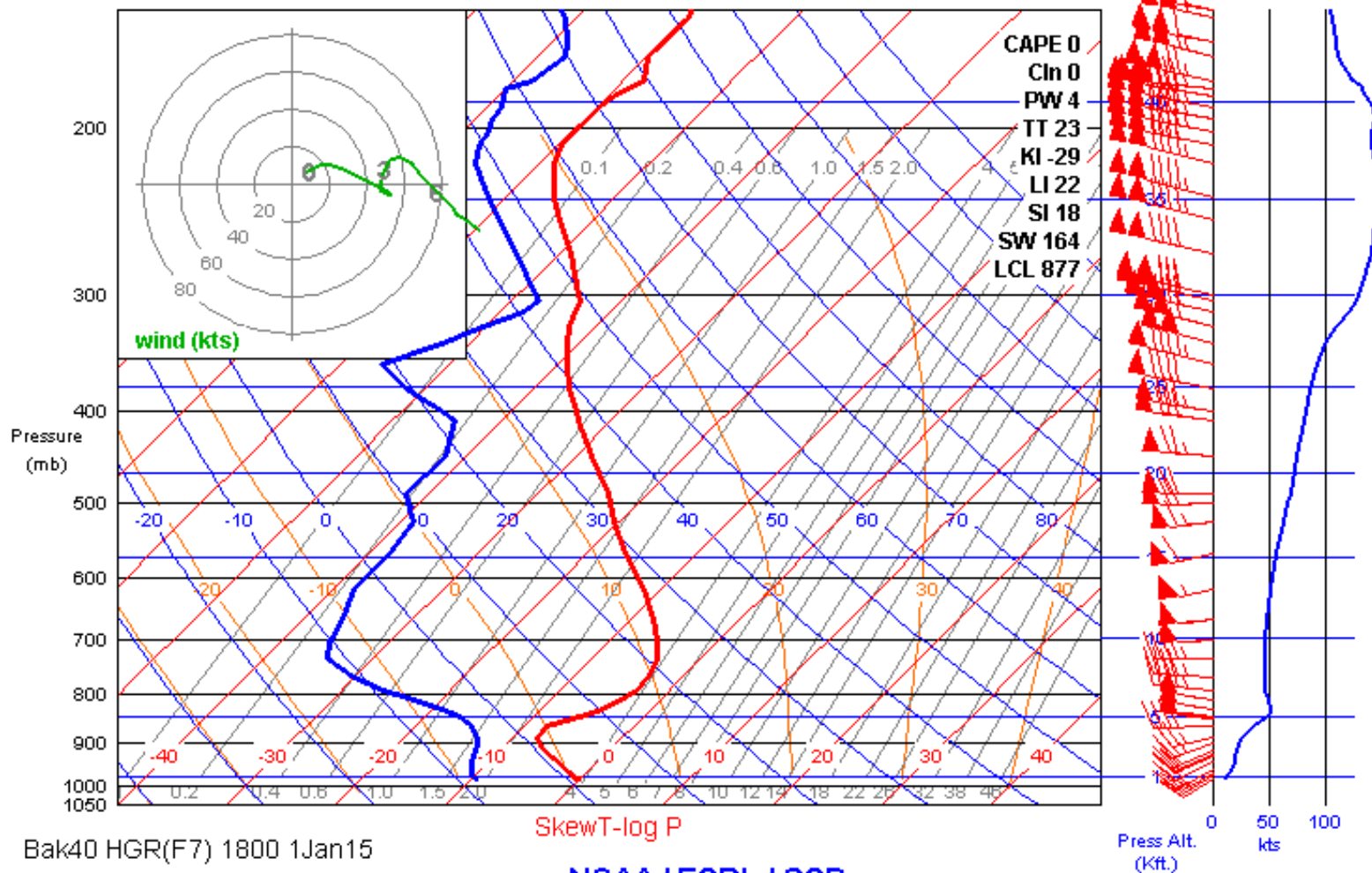
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Bak40 7h Forecast, valid 01-Jan-2015 18:00:00 (13.1nm/54° from HGR)



Load Soundings

Get text

0.5 mb scale

SkewT/Tephi.

Wind scale: 40/100

Simple plot

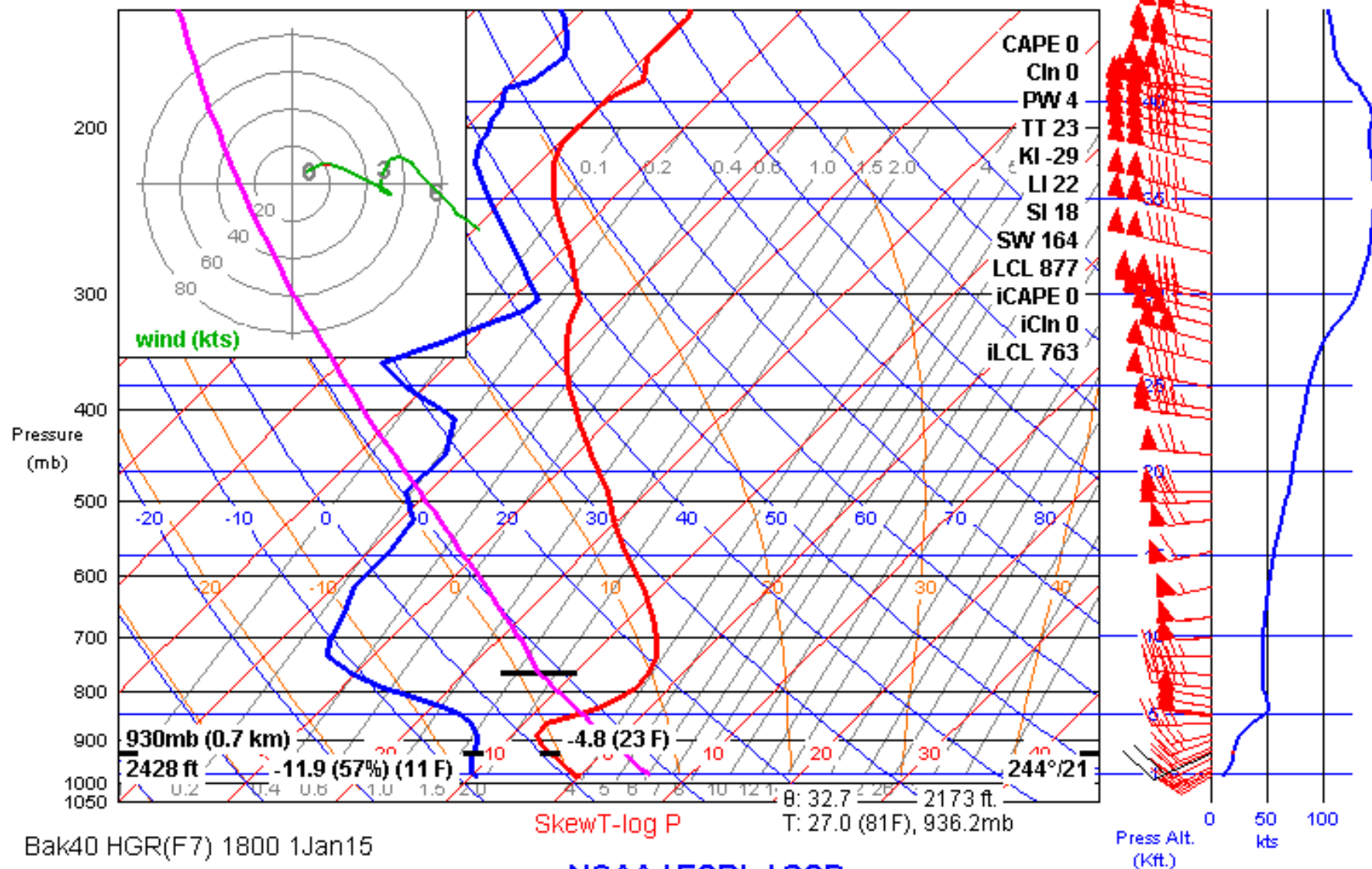
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Bak40 7h Forecast, valid 01-Jan-2015 18:00:00 (13.1nm/54° from HGR)



Bak40 HGR(F7) 1800 1Jan15

Load Soundings

Get text

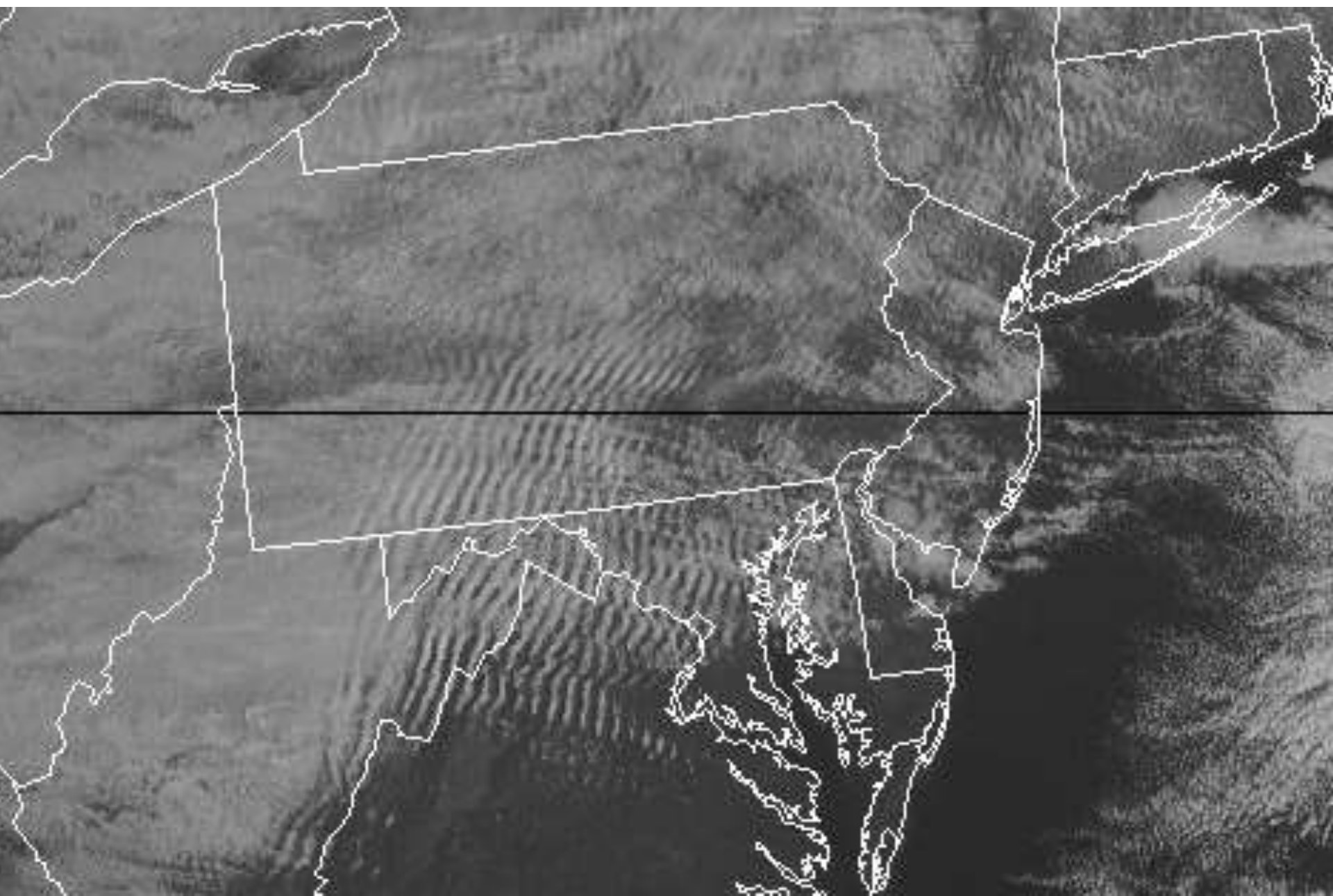
0.5 mb scale

SkewT/Tephi.

Wind scale: 40/100

Simple plot

Top view of great wave day...



Everything in one sketch...

