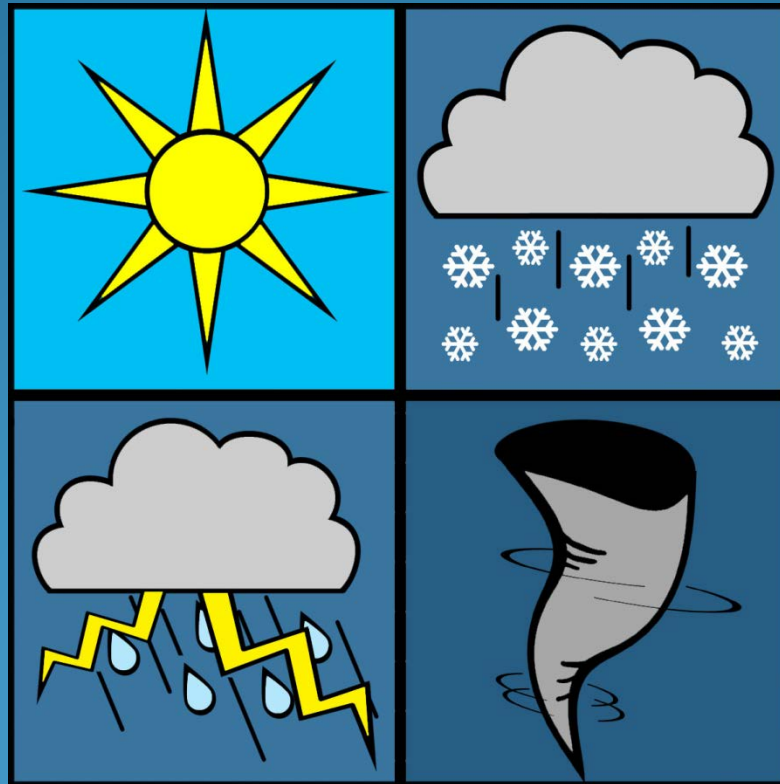


Understanding Central Illinois Weather



“The trouble with weather forecasting, it’s right too often for us to ignore, and wrong too often for us to rely on.” Patrick Young

It's Test Time ! Weather 101...

**What do you know
about weather?**

**What's the difference
between partly cloudy
and partly sunny?**

**Can you have thunder
without lightning?**

**If you have been in fog,
you have been in a
cloud.**

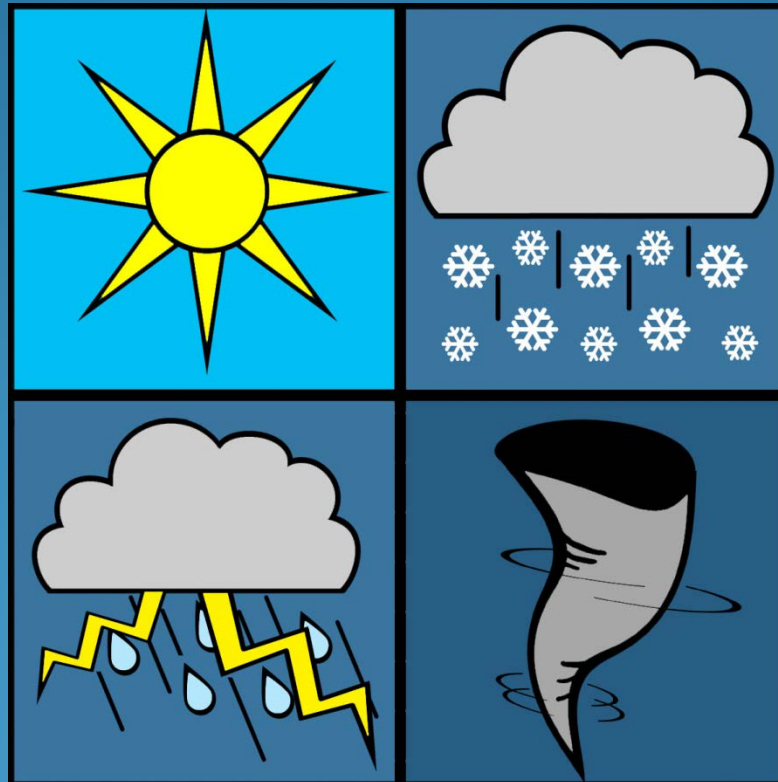
True or False.

**There's no such thing as
heat lightning.
True or False?**

**What's radar spelled
backwards?**

**How does the Illinois
river affect our
weather?**

Understanding Central Illinois Weather



**Central Illinois is located
in the “Mid Latitudes”
which has some of the
wildest weather on the
planet.**

**March-November,
maritime tropical air from
the Gulf. RH 50-60% day,
85% night. This muggy
environment promotes
rain, thunderstorms, and
tornadoes.**

**During these months, there
are occasional
interruptions of cooler air
from the Pacific causing a
clash with warm, muggy air
which is the mechanism for
storms.**

November - March is when cool and dry Pacific air dominates the region. But 4 to 6 times each winter, cold dry air from the Arctic breaks off and comes south.

Weather Extremes

Record high 113

Record low -27

Average precipitation

36"

Average snow

26"

Weather Extremes

**In the winter of 1977-78
we had 34 days in a row of
zero or below**

**In 1887, we had 69 days of
90 degrees or hotter**

Weather Extremes

Calendar day and 24 hour
rainfall record is 5.5"

Calendar day snow 14.5" in
1900

24 hour snowfall record is
18" in 1900

Forecasting Weather in the Mid Latitudes

Computer models made up
of billions of math and
physical equations

Forecasting Weather in the Mid Latitudes

Satellite and radar data
Weather balloons

Forecasting Difficulties in the Mid Latitudes

Flawed model data

Model bias and
performance

Clouds

Snow cover

**Most difficult weather to
predict**

SNOW !

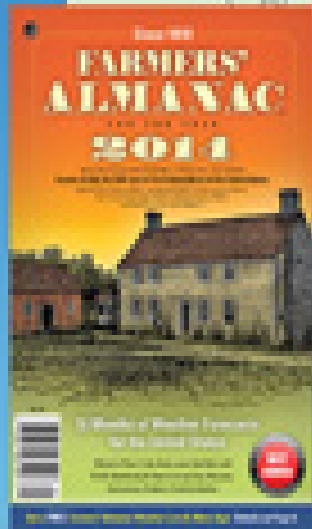
**Critical temperature
Critical track**

External factors affecting public perception of weather forecasting

**Public has the choice of
several forecasts**

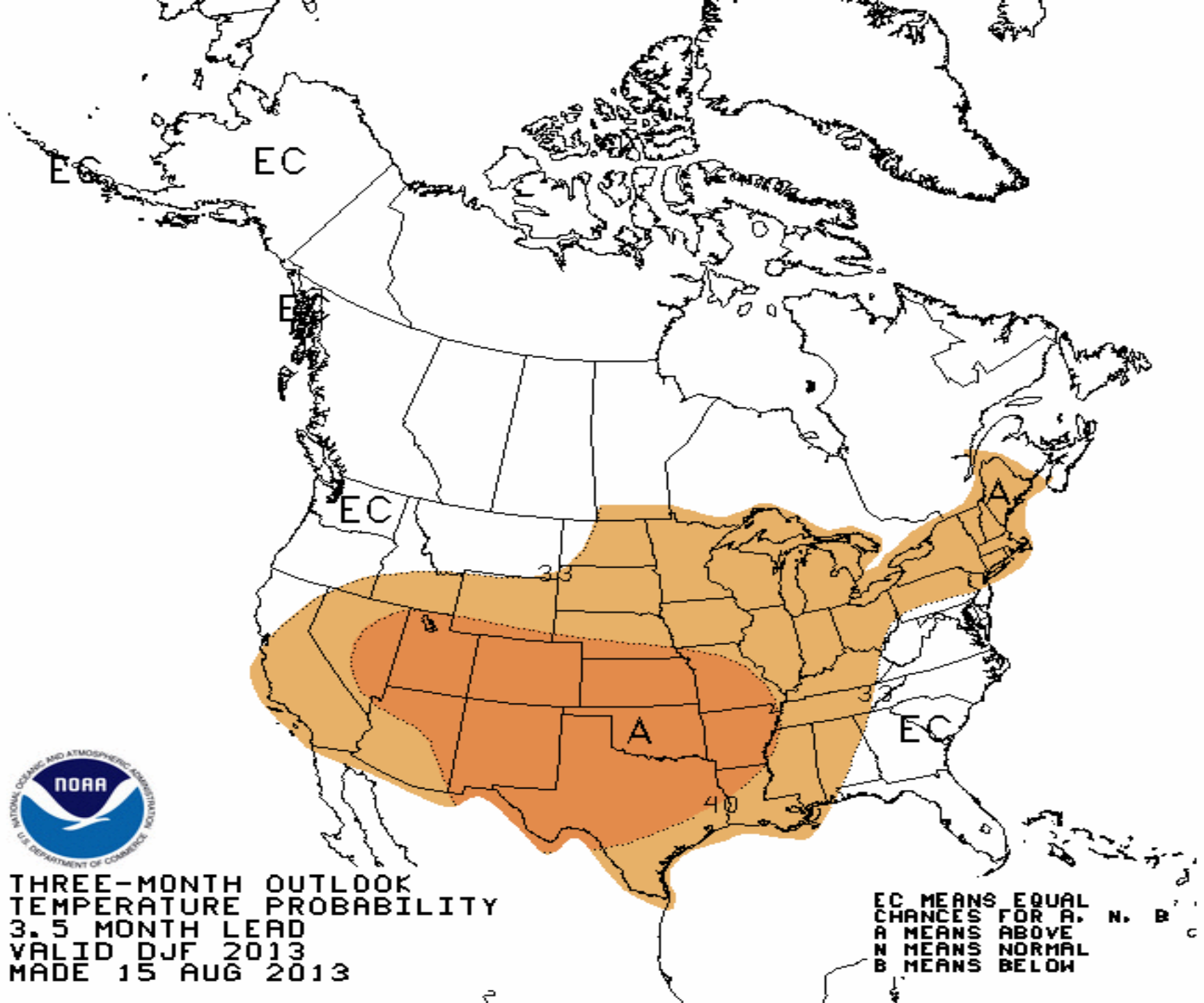
Social media

FARMERS' ALMANAC 2014 WINTER OUTLOOK



More weather at
FarmersAlmanac.com

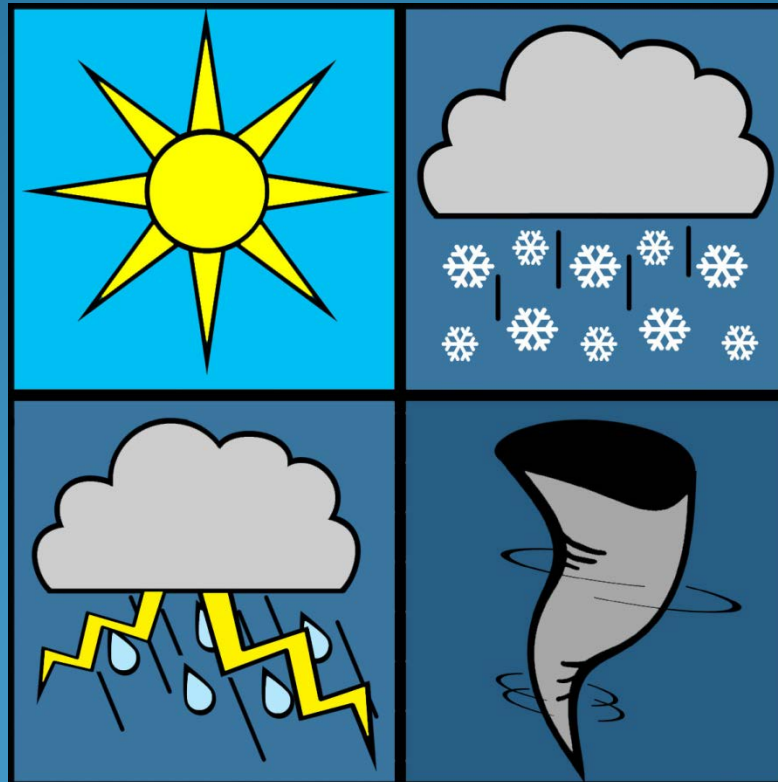




THREE-MONTH OUTLOOK
TEMPERATURE PROBABILITY
3.5 MONTH LEAD
VALID DJF 2013
MADE 15 AUG 2013

EC MEANS EQUAL CHANCES FOR A, N, B
A MEANS ABOVE
N MEANS NORMAL
B MEANS BELOW

Understanding Central Illinois Weather



Future Forecasting Challenges

Weather cycles
Weather extremes
“New Norm”
Global warming

**“Climate is what we expect,
weather is what we get”**

Mark Twain